

Paleoenvironmental Standard Terms (PaST) thesaurus

The World Data Service for Paleoclimatology defines each column of data in a data table using a thesaurus of standard terms and a nine-part variable name, along with a variable abbreviation and an optional free-text field for additional variable information. These variable names offer a common language for describing paleoclimate information and are the basis of the [WDS-Paleo search for variables](#).

This document lists terms in the thesaurus and is organized by the individual parts of a variable name, namely: What, Material, Error, Units, Seasonality, Data Type, Details, and Methods. Bookmark functionality in this pdf document allows navigation between these separate lists. Note that the ninth component of a variable name, Data Format, is simply whether the series contains character-based or numeric values.

Entries for each term contain the term's definition, synonyms, and relationships to other terms. There are three types of relationships between terms: broader terms, narrower terms, and related terms. Hierarchical relationships are captured by broader and narrower terms; a broader term is a more general class or concept and a narrower term is a more specific usage or example. Related terms in the PaST thesaurus help to distinguish the "What" and "Material" terms that are relevant to a particular "Data Type," and are available in the "Data Type" section of this document.

The PaST thesaurus is based upon work supported by the National Science Foundation under Grant Number 1545762* and is maintained by the WDS-Paleo. We require data contributors to use these terms, or to propose new terms, when submitting their data. More information about the thesaurus is available at the [PaST thesaurus web page](#).

*Any opinions, findings, and conclusions or recommendations expressed in this material are those of the authors and do not necessarily reflect the views of the National Science Foundation.

what

definition: description of what was measured.
narrower term: age variable
narrower term: biological material
narrower term: chemical composition
narrower term: depth variable
narrower term: earth system variable
narrower term: electrical property
narrower term: electromagnetic property
narrower term: formation property
narrower term: geological material
narrower term: magnetic property
narrower term: physical property
narrower term: sampling metadata
narrower term: statistical variable

^{10}Be

definition: the concentration of a radioactive isotope of beryllium that has 6 neutrons and 4 protons and that is used to reconstruct solar activity and to date ice cores.
broader term: single isotope concentration
synonym: Be-10
synonym: beryllium-10

$^{132}\text{Xe}/^{36}\text{Ar}$

definition: the ratio of a stable isotope of xenon with 78 neutrons and a stable isotope of argon with 18 neutrons.
broader term: isotope ratio
synonym: Xe132/Ar36
synonym: xenon-132/argon-36

^{137}Cs

definition: the concentration of a radioactive isotope of cesium with 82 neutrons.
broader term: single isotope concentration
synonym: caesium-137
synonym: cesium-137

^{13}C

definition: the concentration of a stable isotope of carbon with 7 neutrons and 6 protons.
broader term: single isotope concentration

$^{143}\text{Nd}/^{144}\text{Nd}$

definition: the ratio of a stable isotope of neodymium with 83 neutrons with a radioactive isotope of neodymium with 84 neutrons.
broader term: isotope ratio
synonym: neodymium-143/neodymium-144
narrower term: epsilon neodymium

¹⁴⁷Sm/¹⁴⁴Nd

definition: the ratio of a radioactive isotope of samarium with 85 neutrons and a radioactive isotope of neodymium with 84 neutrons.

broader term: isotope ratio

synonym: samarium-147/neodymium-144

¹⁴C

definition: the concentration of a radioactive isotope of carbon with 8 neutrons and 6 protons.

broader term: single isotope concentration

synonym: C-14

synonym: carbon-14

¹⁴CO/(¹⁴CO+¹⁴CO₂)

definition: the ratio of the concentration of carbon monoxide containing the radioactive isotope of carbon with 8 neutrons to the sum of the concentrations of carbon monoxide and carbon dioxide containing the same radioactive isotope.

broader term: isotope ratio

¹⁸⁷Os/¹⁸⁸Os

definition: the ratio of a stable isotope of osmium with 111 neutrons and a stable isotope of osmium with 112 neutrons.

broader term: isotope ratio

synonym: osmium-187/osmium-188

¹⁸⁷Re/¹⁸⁸Os

definition: the ratio of a radioactive isotope of rhenium with 112 neutrons and a stable isotope of osmium with 112 neutrons.

broader term: isotope ratio

synonym: rhenium-187/osmium-188

²⁰⁶Pb/²⁰⁴Pb

definition: the ratio of a stable isotope of lead with 124 neutrons and a stable isotope of lead with 122 neutrons.

broader term: isotope ratio

synonym: lead-206/lead-204

²⁰⁶Pb/²⁰⁷Pb

definition: the ratio of a stable isotope of lead with 124 neutrons and a stable isotope of lead with 125 neutrons.

broader term: isotope ratio

synonym: lead-206/lead-207

²⁰⁷Pb/²⁰⁴Pb

definition: the ratio of a stable isotope of lead with 125 neutrons and a stable isotope of lead with 122 neutrons.

broader term: isotope ratio

synonym: lead-207/lead-204

²⁰⁷Pb/²⁰⁶Pb

definition: the ratio of a stable isotope of lead with 125 neutrons and a stable isotope of lead with 124 neutrons.

broader term: isotope ratio
synonym: lead-207/lead-206

208Pb/204Pb

definition: the ratio of a stable isotope of lead with 126 neutrons and a stable isotope of lead with 122 neutrons.

broader term: isotope ratio
synonym: lead-208/lead-204

208Pb/206Pb

definition: the ratio of a stable isotope of lead with 126 neutrons and a stable isotope of lead with 124 neutrons.

broader term: isotope ratio
synonym: lead-208/lead-206

208Pb/207Pb

definition: the ratio of a stable isotope of lead with 126 neutrons and a stable isotope of lead with 125 neutrons.

broader term: isotope ratio
synonym: lead-208/lead-207

210Pb

definition: the concentration of a radioactive isotope of lead with 128 neutrons.

broader term: single isotope concentration

synonym: lead-210

synonym: Pb-210

230Th

definition: the concentration of a radioactive isotope of thorium with 140 neutrons.

broader term: single isotope concentration

synonym: thorium-230

narrower term: 230Th excess

230Th excess

definition: the concentration of 230Th that is produced by the decay of dissolved 234U in the water column, that is measured sedimentary 230Th with any contributions from detrital material or decay of sedimentary 234U removed.

broader term: 230Th

synonym: thorium-230 excess

231Pa

definition: the concentration of a radioactive isotope of protactinium with 140 neutrons.

broader term: single isotope concentration

synonym: protactinium-231

narrower term: 231Pa excess

231Pa excess

definition: the concentration of 231Pa that is produced by the decay of dissolved 235U in the water column, that is measured sedimentary 231Pa with any contributions from detrital material or decay of sedimentary 235U removed.

broader term: 231Pa

synonym: protactinium-231 excess

231Pa/230Th

definition: the ratio of a radioactive isotope of protactinium with 144 neutrons and a radioactive isotope of thorium with 141 neutrons.

broader term: isotope ratio

synonym: protactinium-231/thorium-230

narrower term: 231Pa/230Th excess

231Pa/230Th excess

definition: the ratio of 231Pa to 230Th that is produced by the decay of dissolved uranium in the water column, that is measured sedimentary 231Pa/230Th with any contributions from detrital material or decay of sedimentary uranium removed.

broader term: 231Pa/230Th

synonym: protactinium-231/thorium-230 excess

232Th

definition: the concentration of a radioactive isotope of thorium with 142 neutrons.

broader term: single isotope concentration

synonym: thorium-232

234U

definition: the concentration of a radioactive isotope of uranium with 142 neutrons.

broader term: single isotope concentration

synonym: uranium-234

238U

definition: the concentration of a radioactive isotope of uranium with 146 neutrons.

broader term: single isotope concentration

synonym: uranium-238

238U/232Th

definition: the ratio of a radioactive isotope of uranium with 146 neutrons and a radioactive isotope of thorium with 142 neutrons.

broader term: isotope ratio

synonym: uranium-238/thorium-232

32S

definition: the concentration of a stable isotope of sulfur with 16 neutrons.

broader term: single isotope concentration

synonym: sulfur-32

36Cl

definition: the concentration of a radioactive isotope of chlorine with 19 neutrons.

broader term: single isotope concentration

synonym: chlorine-36

3H

definition: the concentration of a radioactive isotope of hydrogen with 2 neutrons.

broader term: single isotope concentration

synonym: hydrogen-3

synonym: T

synonym: tritium

^3He

definition: the concentration of a stable isotope of helium with 1 neutron.

broader term: single isotope concentration

synonym: helium-3

$^3\text{He}/^4\text{He}$

definition: the ratio of a stable isotope of helium with 1 neutron and a stable isotope of helium with 2 neutrons.

broader term: isotope ratio

synonym: helium-3/helium-4

^4He

definition: the concentration of a stable isotope of helium with 2 neutrons.

broader term: single isotope concentration

synonym: helium-4

^7Be

definition: the concentration of a radioactive isotope of beryllium that has 3 neutrons and 4 protons.

broader term: single isotope concentration

$^{84}\text{Kr}/^{36}\text{Ar}$

definition: the ratio of a stable isotope of krypton with 48 neutrons and a stable isotope of argon with 18 neutrons.

broader term: isotope ratio

synonym: krypton-84/argon-36

$^{87}\text{Rb}/^{86}\text{Sr}$

definition: the ratio of a radioactive isotope of rubidium with 50 neutrons and a stable isotope of strontium with 48 neutrons.

broader term: isotope ratio

synonym: rubidium-87/strontium-86

$^{87}\text{Sr}/^{86}\text{Sr}$

definition: the ratio of a stable isotope of strontium with 49 neutrons and a stable isotope of strontium with 48 neutrons.

broader term: isotope ratio

synonym: strontium-87/strontium-86

absorbance

definition: an electromagnetic property that measures the amount of light absorbed by a material as a beam of light passes through it.

broader term: electromagnetic property

accumulation rate

definition: the rate of accumulation of a bulk archive material (e.g., sediment, ice, etc). For sediments, it is normally expressed as mass per unit area per unit time (e.g., $\text{g cm}^{-2} \text{yr}^{-1}$). For the ice core data type, it can be a linear rate (e.g., cm/year). To describe accumulation rates of individual components of a bulk material (e.g., charcoal, biogenic silica, etc) use that component name as the "what" and provide appropriate units.

broader term: formation rate

acetate

definition: an organooxygen compound with the formula C₂H₃O₂ (CHEBI: 30089).
broader term: organooxygen compound
synonym: C₂H₃O₂-

acidity

definition: a solution concentration that quantifies the concentration of hydrogen ions.
broader term: solution property
narrower term: pH

actual/potential evapotranspiration

definition: the ratio of the measured evapotranspiration to the amount of evaporation that would occur if a sufficient water source were available.
broader term: hydroclimate ratio

aerosol optical depth

definition: the integral along the path of radiation of a volume scattering/absorption/attenuation coefficient for ambient aerosols. The radiative flux is reduced by a factor $\exp(-\text{optical_depth})$ on traversing the path. (CF: atmosphere_optical_thickness_due_to_ambient_aerosol_particles)
broader term: radiative flux variable

age

definition: the age, either directly measured or inferred, of the midpoint of a sample.
broader term: age variable
narrower term: age at sample end
narrower term: age at sample start
narrower term: gas age
narrower term: gas age at sample end
narrower term: gas age at sample start
narrower term: ice age
narrower term: ice age at sample end
narrower term: ice age at sample start

age at sample end

definition: the age, either directly measured or inferred, at the youngest end of the sample.
broader term: age

age at sample start

definition: the age, either directly measured or inferred, at the oldest end of the sample.
broader term: age

age variable

definition: measurements relating to the age of a sample.
broader term: what
narrower term: age
narrower term: reservoir age

air content

definition: a measure of the amount of air that is contained within a material.
broader term: porosity

air potential temperature

definition: the temperature that a parcel of air would have if brought adiabatically to a reference pressure, often 1 bar (100 kPa) (CF: air_potential_temperature).
broader term: potential temperature

air temperature

definition: the mean temperature of air at a level of the atmosphere that should be specified in the "Additional Information" field (CF: air_temperature).
broader term: temperature
narrower term: surface air temperature

alanine

definition: an amino acid with the formula C₃H₇NO₂ (CHEBI: 16449).
broader term: amino acid

albite

definition: a plagioclase feldspar mineral that has the general formula (Ca,Na)Al(Si,Al)Si₂O₈ with 90-100% Na and 0-10% Ca.
broader term: plagioclase feldspar series
narrower term: cleavelandite

alcohol

definition: an organic hydroxy compound that has a hydroxyl functional group bound to a saturated carbon atom (CHEBI: 30879).
broader term: organic hydroxy compound
narrower term: arborinol
narrower term: long-chain alkyl diol
narrower term: octacosanol
narrower term: phytol

alkali feldspar series

definition: feldspar group minerals that are rich in sodium or potassium.
broader term: feldspar group
narrower term: anorthoclase
narrower term: potassium feldspar

alkalinity

definition: a solution concentration that is a measure of the amount of bases in a solution that can be converted to uncharged species by a strong acid (Wikipedia).
broader term: solution property

alkane

definition: a hydrocarbon that is an acyclic and saturated with the general chemical formula C_nH_{2n+2} (CHEBI: 18310).
broader term: hydrocarbon
narrower term: branched alkane
narrower term: cyclic alkane
narrower term: n-alkane

alkene

definition: a hydrocarbon that is unsaturated with at least one carbon-carbon double bond (CHEBI: 32878).
broader term: hydrocarbon

narrower term: botryococcene
narrower term: highly-branched isoprenoid alkene

alkenone

definition: a ketone that is a long-chain unsaturated methyl and ethyl n-ketone produced by a few phytoplankton species of the class Prymnesiophyceae (Wikipedia).
broader term: ketone
narrower term: C37 alkenone

alkenone unsaturation index

definition: an organic compound index that compares the relative abundances of different alkenones in a sample.
broader term: organic compound index
synonym: Uk37
narrower term: alkenone unsaturation index Uk37
narrower term: alkenone unsaturation index Uk37 prime
narrower term: alkenone unsaturation index Ume36

alkenone unsaturation index Uk37

definition: an alkenone saturation index that compares the amounts of C37:2, C37:3, and C37:4 alkenones, as $(C37:2-C37:4)/(C37:2+C37:3+C37:4)$.
broader term: alkenone unsaturation index

alkenone unsaturation index Uk37 prime

definition: an alkenone saturation index that compares the amounts of C37:2 and C37:3 alkenones, as $C37:2/(C37:2+C37:3)$.
broader term: alkenone unsaturation index
synonym: Uk37 prime

alkenone unsaturation index Ume36

definition: an alkenone saturation index that compares the amounts of C36:2 and C36:3 alkenones, as $C36:2/(C36:2+C36:3)$.
broader term: alkenone unsaturation index

almandine

definition: a silicate mineral with the formula $Fe_2+3Al_2(SiO_4)_3$ (Dana 8th ed.: 51.4.3a.2; Nickel-Strunz 10th (pending) ed.: 9.AD.25; <https://www.mindat.org/min-452.html>).
broader term: silicate mineral

aluminum

definition: a chemical element with atomic number 13.
broader term: element or single-element molecule
synonym: Al

aluminum oxide

definition: an inorganic compound that has the chemical formula Al_2O_3 (CHEBI: 30187).
broader term: inorganic compound
synonym: Al_2O_3
synonym: aluminum(III) oxide

aluminum/calcium

definition: the elemental ratio of aluminum to calcium.

broader term: element or compound ratio
synonym: Al/Ca

aluminum/titanium

definition: the elemental ratio of aluminum to titanium.
broader term: element or compound ratio
synonym: Al/Ti

amarillite

definition: a sulfate mineral with the formula $\text{NaFe}_3+(\text{SO}_4)_2 \cdot 6\text{H}_2\text{O}$ (Dana 8th ed.: 29.5.3.2; Nickel-Strunz 10th (pending) ed.: 7.CC.75; <https://www.mindat.org/min-183.html>).
broader term: sulfate mineral

amino acid

definition: an organooxygen compound that contains one or more amino groups of NH_2 (CHEBI: 33709).
broader term: organooxygen compound
narrower term: alanine
narrower term: aspartic acid and asparagine
narrower term: glutamic acid and glutamine
narrower term: glycine
narrower term: isoleucine
narrower term: leucine
narrower term: lysine
narrower term: phenylalanine
narrower term: proline
narrower term: serine
narrower term: threonine
narrower term: tyrosine
narrower term: valine

ammonium

definition: an inorganic compound that has the chemical formula H_4N (CHEBI: 28938).
broader term: inorganic compound
synonym: NH_4^+

amphibole

definition: a silicate mineral with the general formula $\text{A}_2\text{B}_5(\text{Si},\text{Al},\text{Ti})_8\text{O}_{22}(\text{OH},\text{F},\text{Cl},\text{O})_2$ where A is generally Mg, Fe, Ca, or Na and B is generally Mg, Fe^{2+} , Al, or Fe^{3+} (www.mindat.org/min-207.html).
broader term: silicate mineral
narrower term: kaersutite
narrower term: leakeite
narrower term: richterite

anapaite

definition: a phosphate mineral with the formula $\text{Ca}_2\text{Fe}_2+(\text{PO}_4)_2 \cdot 4\text{H}_2\text{O}$ (Dana 8th ed.: 40.2.1.1; Nickel-Strunz 10th (pending) ed.: 8.CH.10; <https://www.mindat.org/min-211.html>).
broader term: phosphate mineral

andesine

definition: a plagioclase feldspar mineral that has the general formula $(\text{Ca},\text{Na})\text{Al}(\text{Si},\text{Al})\text{Si}_2\text{O}_8$ with 50-70% Na and 30-50% Ca.
broader term: plagioclase feldspar series

andradite

definition: a silicate mineral with the formula $\text{Ca}_3\text{Fe}^{2+}(\text{SiO}_4)_3$ (Dana 8th ed.: 51.4.3b.1; Nickel-Strunz 10th (pending) ed.: 9.AD.25; <https://www.mindat.org/min-223.html>).

broader term: silicate mineral

angle

definition: a physical property that is the ratio of the length of a circular arc to its radius.

broader term: physical property

narrower term: average microfibril angle

narrower term: azimuth

narrower term: inclination

anglesite

definition: a sulfate mineral with the formula PbSO_4 (Dana 8th ed.: 28.3.1.3; Nickel-Strunz 10th (pending) ed.: 7.AD.35; <https://www.mindat.org/min-233.html>).

broader term: sulfate mineral

anhysteretic remanent magnetization

definition: a remanent magnetization that is acquired by exposure to an alternating field (AF) of gradually decreasing amplitude simultaneously with a steady, unidirectional direct current field (Encyclopedia of Geomagnetism and Paleomagnetism). It is sensitive to both ferrimagnetic concentration and ferrimagnetic grain size (Hatfield and Stoner, 2013).

broader term: remanent magnetization

synonym: ARM

anhysteretic remanent magnetization/isothermal remanent magnetization

definition: a magnetic ratio of the anhysteretic remanent magnetization to the isothermal remanent magnetization, which can yield a qualitative measure of magnetic grain size (higher values indicating finer grain sizes).

broader term: magnetic ratios

synonym: ARM/IRM

anhysteretic remanent magnetization/magnetic susceptibility

definition: a magnetic ratio of the anhysteretic remanent magnetization to the magnetic susceptibility, which can yield a qualitative measure of magnetic grain size (higher values indicating finer grain sizes).

broader term: magnetic ratios

synonym: ARM/K

synonym: ARM/MS

anhysteretic remanent magnetization/saturation isothermal remanent magnetization

definition: a magnetic ratio of the anhysteretic remanent magnetization to the saturation isothermal remanent magnetization, which can yield a qualitative measure of magnetic grain size.

broader term: magnetic ratios

synonym: ARM/SIRM

ankerite

definition: a carbonate with the formula $\text{CaFe}^{2+}(\text{CO}_3)_2$ (Dana 8th ed.:14.2.1.2; Nickel-Strunz 10th (pending) ed.: 5.AB.10; <https://www.mindat.org/min-239.html>).

broader term: carbonate

anorthite

definition: a plagioclase feldspar mineral that has the general formula $(Ca,Na)Al(Si,Al)Si_2O_8$ with 0-10% Na and 90-100% Ca.

broader term: plagioclase feldspar series

anorthoclase

definition: an alkali feldspar mineral with the formula $(Na,K)AlSi_3O_8$ (Dana 8th ed.: 76.1.1.6; Nickel-Strunz 10th (pending) ed.: 9.FA.30; <https://www.mindat.org/min-248.html>).

broader term: alkali feldspar series

Antarctic Bottom Water

definition: a circulation variable that measures the flux of the bottom water mass formed in the Southern Ocean.

broader term: circulation variable

synonym: AABW

anthropogenic aerosol forcing

definition: a forcing variable that quantifies the radiative forcing, often expressed in watt per square meter, of anthropogenic aerosols.

broader term: forcing variable

antimony

definition: a chemical element with atomic number 51.

broader term: element or single-element molecule

synonym: Sb

apparent oxygen utilization

definition: the difference between the measured dissolved oxygen concentration and its equilibrium saturation concentration in water with the same physical and chemical properties (BCO-DMO).

broader term: solution property

synonym: AOU

aragonite

definition: a calcium carbonate with orthorhombic crystal structure.

broader term: calcium carbonate

aragonite saturation state

definition: a chemical variable that is defined as the product of the concentrations of dissolved calcium and carbonate ions in seawater divided by the product of aragonite at equilibrium.

broader term: solution property

araphid:raphid diatom

definition: the ratio of araphid to raphid diatoms in a sample.

broader term: diatom ratio

arborinol

definition: an alcohol that has the formula $C_{30}H_{50}O$ and that are organic compounds produced by higher-order terrestrial vegetation.

broader term: alcohol

Arctic Oscillation Index

definition: a circulation index that is calculated from non-seasonal sea level pressure variations north of 20 degrees North latitude.

broader term: mode-of-variability variable

synonym: AO

synonym: Northern Annular Mode

synonym: Northern Hemisphere Annular Mode

area

definition: a physical property that is the spatial extent of a two-dimensional figure or shape.

broader term: physical property

narrower term: basal area increment

argon

definition: a chemical element with atomic number 18.

broader term: element or single-element molecule

synonym: Ar

aromatic compound

definition: an organic compound that is highly-stable, cyclic, and planar with a ring of resonance bonds (CHEBI: 33659).

broader term: organic compound

narrower term: chlorin

narrower term: lignin

narrower term: phenol

narrower term: polycyclic aromatic hydrocarbon

narrower term: vanillic acid

arsenic

definition: a chemical element with atomic number 33.

broader term: element or single-element molecule

synonym: As

aspartic acid and asparagine

definition: amino acids with the formulas C₄H₇NO₄ or C₄H₈N₂O₃, that are often measured together because they easily convert from one to the other (CHEBI: 22653; CHEBI: 22660).

broader term: amino acid

Atlantic Multidecadal Oscillation Index

definition: a circulation index that is calculated from the detrended average anomalies of sea surface temperatures in the North Atlantic basin, usually from 0 to 80 degrees north and that represents internal (unforced variability).

broader term: mode-of-variability variable

synonym: AMO

Atlantic Multidecadal Variability Index

definition: a circulation variable that is calculated from the average anomalies of sea surface temperatures in the North Atlantic basin, usually from 0 to 80 degrees north and that represents the combined externally forced climate signal along with internal variability.

broader term: mode-of-variability variable

synonym: AMV

atmospheric boundary layer thickness

definition: the depth or height of the lowest part of the atmosphere that is directly influenced by contact with the earth surface (CF: atmosphere_boundary_layer_thickness).
broader term: circulation variable

average cell wall thickness

definition: the average thickness of a cell wall in a tree.

broader term: length

average chain length

definition: a chain length index that is the average number of carbon atoms within organic compound chains in a sample.

broader term: chain length index

average microfibril angle

definition: the mean angle between the direction of cellulose microfibrils and the long axis of the cell in wood.

broader term: angle

azimuth

definition: the angle between a reference vector and a vector between an observer and a point of interest that is projected into the reference plane orthogonal to the zenith.

broader term: angle

barium

definition: a chemical element with atomic number 56.

broader term: element or single-element molecule

synonym: Ba

narrower term: barium excess

barium excess

definition: the amount of total barium minus the fraction associated with terrigenous material.

broader term: barium

synonym: Ba excess

barium oxide

definition: an inorganic compound that has the chemical formula BaO.

broader term: inorganic compound

synonym: BaO

barium/aluminum

definition: the elemental ratio of barium to aluminum.

broader term: element or compound ratio

synonym: Ba/Al

barium/calcium

definition: the elemental ratio of barium to calcium.

broader term: element or compound ratio

synonym: Ba/Ca

barium/iron

definition: the elemental ratio of barium to iron.

broader term: element or compound ratio

synonym: Ba/Fe

barium/titanium

definition: the elemental ratio of barium to titanium.

broader term: element or compound ratio

synonym: Ba/Ti

barotropic streamfunction

definition: a circulation of the ocean defined for latitude and longitude that quantifies the volume transport of water between two points (CF: ocean_barotropic_streamfunction).

broader term: circulation variable

basal area increment

definition: the cross-sectional area of one year of tree growth.

broader term: area

basal area mass increment

definition: the mass of the cross-sectional area of one year of tree growth.

broader term: mass

bearsite

definition: a phosphate mineral with the formula $\text{Be}_2\text{AsO}_4(\text{OH})\cdot 4\text{H}_2\text{O}$ (Dana 8th ed.: 42.6.1.2; Nickel-Strunz 10th (pending) ed.: 8.DA.05; <https://www.mindat.org/min-589.html>).

broader term: phosphate mineral

bedrock elevation

definition: the elevation of the surface of bedrock under an ice sheet or glacier, measured relative to some datum.

broader term: cryospheric quantity

beryllium

definition: a chemical element with atomic number 4.

broader term: element or single-element molecule

synonym: Be

beta activity

definition: an electromagnetic property that measures the emission of beta particles by a material.

broader term: electromagnetic property

billietite

definition: an oxide or hydroxide mineral with the formula $\text{Ba}(\text{UO}_2)_6\text{O}_4(\text{OH})_6\cdot 8\text{H}_2\text{O}$ (Dana 8th ed.: 5.7.1.3; Nickel-Strunz 10th (pending) ed.: 4.GB.10; <https://www.mindat.org/min-674.html>).

broader term: oxide and hydroxide minerals

biogenic silica

definition: a hydrated, amorphous form of silicon dioxide with the formula $\text{SiO}_2\cdot n\text{H}_2\text{O}$ that is biogenically precipitated by a variety of organisms including chrysophytes, diatoms, radiolarians, silicoflagellates, and sponges (Last et al. 2001 Tracking Environmental Change Using Lake Sediments).

broader term: silicon dioxide

synonym: biogenic opal

biological material

definition: cells or collections of cells that partially or completely compose an organism or group of organisms.

broader term: what

narrower term: bulk biological material

narrower term: organism

narrower term: tissue

biomass burning

definition: an ecosystem process in which organic matter is burned by forest fires, etc and resulting in various chemical emissions (CF: biomass_burning_carbon_flux).

broader term: ecosystem process

biome

definition: an ecosystem variable that describes a distinct biological community that formed in response to a shared physical climate.

broader term: ecosystem index

biotite series

definition: <https://www.mindat.org/min-677.html>

The CNMMN Subcommittee on Nomenclature of the Micas (1998, 1999) has recommended that the name biotite be used for a series between the joins Annite-Phlogopite and Siderophyllite-Eastonite, and is therefore no longer to be regarded as a species name.

broader term: mica group

birnessite

definition: an oxide or hydroxide mineral with the formula $(\text{Na,Ca})_{0.5}(\text{Mn}^{4+}, \text{Mn}^{3+})_2\text{O}_4 \cdot 1.5\text{H}_2\text{O}$ (Dana 8th ed.: 7.5.3.1; Nickel-Strunz 10th (pending) ed.: 4.FL.45; <https://www.mindat.org/min-680.html>).

broader term: oxide and hydroxide minerals

bismite

definition: an oxide or hydroxide mineral with the formula Bi_2O_3 (Dana 8th ed.: 4.3.10.2; Nickel-Strunz 10th (pending) ed.: 4.CB.60; <https://www.mindat.org/min-682.html>).

broader term: oxide and hydroxide minerals

bismuth

definition: a chemical element with atomic number 83.

broader term: element or single-element molecule

synonym: Bi

black carbon

definition: a bulk biological material that consists of fine particulate matter that is formed through incomplete combustion of a carbon-containing material.

broader term: bulk biological material

synonym: BC

synonym: soot

blödite

definition: a sulfate mineral with the formula $\text{Na}_2\text{Mg}(\text{SO}_4)_2 \cdot 4\text{H}_2\text{O}$ (Dana 8th ed.: 29.3.3.1; Nickel-Strunz 10th (pending) ed.: & 7.CC.50; <https://www.mindat.org/min-695.html>).

broader term: sulfate mineral

blue intensity

definition: a component of the RGB color system that measures the level of blue light required to produce the color of a substance.
broader term: RGB color system

blue-yellow contrast

definition: an axis of the CIELAB color system, with negative values indicating blue and positive values indicating yellow.
broader term: CIE L*a*b* color system
synonym: b*

borate ion

definition: any inorganic compound that is formally derived from boric acid (CHEBI: 22909).
broader term: inorganic compound
synonym: BO₃

boron

definition: a chemical element with atomic number 5.
broader term: element or single-element molecule
synonym: B

boron/calcium

definition: the elemental ratio of boron to calcium.
broader term: element or compound ratio
synonym: B/Ca

botryococcene

definition: an unbranched isoprenoid triterpene having the formula C_nH_{2n-10} and that is a product of the green algae *Botryococcus braunii* (Wikipedia).
broader term: alkene

brachiopod

definition: an identifiable organism that belongs to the kingdom Animalia, phylum Brachiopoda (TSN: 156755).
broader term: organism
narrower term: brachiopod index
narrower term: identified brachiopod

brachiopod index

definition: a measurement of brachiopods, such as a ratio or count, that is derived from a series of observations and that is used as an indicator or measure.
broader term: brachiopod

branched alkane

definition: an alkane that has a branched structure, in which the carbon backbone splits off in one or more directions.
broader term: alkane
narrower term: phytane
narrower term: pristane

branched and isoprenoid tetraether index

definition: an organic compound index that is the abundance of branched tetraethers relative to isoprenoid tetraethers, indicative of the relative amounts of soil organic matter and aquatic organic matter.

broader term: organic compound index
synonym: BIT index

branched glycerol dialkyl glycerol tetraether

definition: a glycerol dialkyl glycerol tetraether that has branched alkyl chains and that is of bacterial origin (Dirghangi et al. 2013).

broader term: glycerol dialkyl glycerol tetraether
synonym: branched GDGT

brassicasterol

definition: a sterol that has the chemical formula C₂₈H₄₆O and is synthesised by several unicellular algae(phytoplankton) and some terrestrial plants (CHEBI: 3168).

broader term: sterol

bromine

definition: a chemical element with atomic number 35.

broader term: element or single-element molecule
synonym: Br

bromine/silicon

definition: the elemental ratio of bromine to silicon.

broader term: element or compound ratio
synonym: Br/Si

brushite

definition: a phosphate mineral with the formula Ca(PO₃OH)·2H₂O (Dana 8th ed.: 39.1.1.1; Nickel-Strunz 10th (pending) ed.: 8.CJ.50; <https://www.mindat.org/min-793.html>).

broader term: phosphate mineral

bulk biological material

definition: a biological material that consists of undifferentiated components, often from different sources.

broader term: biological material

narrower term: black carbon

narrower term: charcoal

narrower term: organic matter

narrower term: peat

narrower term: phytoliths

bulk geological material

definition: a geological material that consists of undifferentiated components, often from different sources.

broader term: geological material

narrower term: dust

narrower term: mineral matter

narrower term: particles

narrower term: sea salt

burned area

definition: an ecosystem variable that measures the area or fractional area of vegetated land burned by a wildfire.

broader term: ecosystem quantity

butlerite

definition: a sulfate mineral with the formula $\text{Fe}^{3+}\text{SO}_4(\text{OH})\cdot 2\text{H}_2\text{O}$ (Dana 8th ed.: 31.9.1.1; Nickel-Strunz 10th (pending) ed.: 7.DC.10; <https://www.mindat.org/min-810.html>).
broader term: sulfate mineral

bytownite

definition: a plagioclase feldspar mineral that has the general formula $(\text{Ca},\text{Na})\text{Al}(\text{Si},\text{Al})\text{Si}_2\text{O}_8$ with 10-30% Na and 70-90% Ca.
broader term: plagioclase feldspar series

C10 n-alkane

definition: a n-alkane with the chemical formula $\text{C}_{10}\text{H}_{22}$.
broader term: n-alkane

C11 n-alkane

definition: a n-alkane with the chemical formula $\text{C}_{11}\text{H}_{24}$.
broader term: n-alkane

C12 n-alkane

definition: a n-alkane with the chemical formula $\text{C}_{12}\text{H}_{26}$.
broader term: n-alkane

C13 n-alkane

definition: a n-alkane with the chemical formula $\text{C}_{13}\text{H}_{28}$.
broader term: n-alkane

C14 n-alkane

definition: a n-alkane with the chemical formula $\text{C}_{14}\text{H}_{30}$.
broader term: n-alkane

C15 n-alkane

definition: a n-alkane with the chemical formula $\text{C}_{15}\text{H}_{32}$.
broader term: n-alkane

C16 n-alkane

definition: a n-alkane with the chemical formula $\text{C}_{16}\text{H}_{34}$.
broader term: n-alkane

C16 n-alkanoic acid

definition: a n-alkanoic acid with the formula $\text{C}_{15}\text{H}_{31}\text{COOH}$.
broader term: n-alkanoic acid

C17 n-alkane

definition: a n-alkane with the chemical formula $\text{C}_{17}\text{H}_{36}$.
broader term: n-alkane

C17 n-alkanoic acid

definition: a n-alkanoic acid with the formula $\text{C}_{16}\text{H}_{33}\text{COOH}$.
broader term: n-alkanoic acid

C18 n-alkane

definition: a n-alkane with the chemical formula $\text{C}_{18}\text{H}_{38}$.
broader term: n-alkane

- C18 n-alkanoic acid
definition: a n-alkanoic acid with the formula $C_{17}H_{35}COOH$.
broader term: n-alkanoic acid
- C19 n-alkane
definition: a n-alkane with the chemical formula $C_{19}H_{40}$.
broader term: n-alkane
- C19 n-alkanoic acid
definition: a n-alkanoic acid with the formula $C_{18}H_{37}COOH$.
broader term: n-alkanoic acid
- C20 n-alkane
definition: a n-alkane with the chemical formula $C_{20}H_{42}$.
broader term: n-alkane
- C20 n-alkanoic acid
definition: a n-alkanoic acid with the formula $C_{19}H_{39}COOH$.
broader term: n-alkanoic acid
- C21 n-alkane
definition: a n-alkane with the chemical formula $C_{21}H_{44}$.
broader term: n-alkane
- C21 n-alkanoic acid
definition: a n-alkanoic acid with the formula $C_{20}H_{41}COOH$.
broader term: n-alkanoic acid
- C22 n-alkane
definition: a n-alkane with the chemical formula $C_{22}H_{46}$.
broader term: n-alkane
- C22 n-alkanoic acid
definition: a n-alkanoic acid with the formula $C_{21}H_{43}COOH$.
broader term: n-alkanoic acid
- C23 n-alkane
definition: a n-alkane with the chemical formula $C_{23}H_{48}$.
broader term: n-alkane
- C23 n-alkanoic acid
definition: a n-alkanoic acid with the formula $C_{22}H_{45}COOH$.
broader term: n-alkanoic acid
- C24 n-alkane
definition: a n-alkane with the chemical formula $C_{24}H_{50}$.
broader term: n-alkane
- C24 n-alkanoic acid
definition: a n-alkanoic acid with the formula $C_{23}H_{47}COOH$.
broader term: n-alkanoic acid

C25 n-alkane

definition: a n-alkane with the chemical formula C₂₅H₅₂.

broader term: n-alkane

C25 n-alkanoic acid

definition: a n-alkanoic acid with the formula C₂₄H₄₉COOH.

broader term: n-alkanoic acid

C26 n-alkane

definition: a n-alkane with the chemical formula C₂₆H₅₄.

broader term: n-alkane

C26 n-alkanoic acid

definition: a n-alkanoic acid with the formula C₂₅H₅₁COOH.

broader term: n-alkanoic acid

C27 n-alkane

definition: a n-alkane with the chemical formula C₂₇H₅₆.

broader term: n-alkane

C27 n-alkanoic acid

definition: a n-alkanoic acid with the formula C₂₆H₅₃COOH.

broader term: n-alkanoic acid

C28 n-alkane

definition: a n-alkane with the chemical formula C₂₈H₅₈.

broader term: n-alkane

C28 n-alkanoic acid

definition: a n-alkanoic acid with the formula C₂₇H₅₅COOH.

broader term: n-alkanoic acid

C29 n-alkane

definition: a n-alkane with the chemical formula C₂₉H₆₀.

broader term: n-alkane

C29 n-alkanoic acid

definition: a n-alkanoic acid with the formula C₂₈H₅₇COOH.

broader term: n-alkanoic acid

C3 plants

definition: an ecosystem variable that quantifies the presence of plants using the Calvin photosynthetic pathway.

broader term: ecosystem quantity

C30 n-alkane

definition: a n-alkane with the chemical formula C₃₀H₆₂.

broader term: n-alkane

C30 n-alkanoic acid

definition: a n-alkanoic acid with the formula C₂₉H₅₉COOH.

broader term: n-alkanoic acid

C31 n-alkane

definition: a n-alkane with the chemical formula C₃₁H₆₄.

broader term: n-alkane

C31 n-alkanoic acid

definition: a n-alkanoic acid with the formula C₃₀H₆₁COOH.

broader term: n-alkanoic acid

C32 n-alkane

definition: a n-alkane with the chemical formula C₃₂H₆₆.

broader term: n-alkane

C32 n-alkanoic acid

definition: a n-alkanoic acid with the formula C₃₁H₆₃COOH.

broader term: n-alkanoic acid

C33 n-alkane

definition: a n-alkane with the chemical formula C₃₃H₆₈.

broader term: n-alkane

C33 n-alkanoic acid

definition: a n-alkanoic acid with the formula C₃₂H₆₅COOH.

broader term: n-alkanoic acid

C34 n-alkane

definition: a n-alkane with the chemical formula C₃₄H₇₀.

broader term: n-alkane

C34 n-alkanoic acid

definition: a n-alkanoic acid with the formula C₃₃H₆₇COOH.

broader term: n-alkanoic acid

C35 n-alkane

definition: a n-alkane with the chemical formula C₃₅H₇₂.

broader term: n-alkane

C37 alkenone

definition: an alkenone that contains 37 carbon atoms.

broader term: alkenone

narrower term: C₃₇:2 alkenone

narrower term: C₃₇:3 alkenone

narrower term: C₃₇:4 alkenone

C₃₇:2 alkenone

definition: a C₃₇ alkenone that is di-unsaturated.

broader term: C₃₇ alkenone

C₃₇:3 alkenone

definition: a C₃₇ alkenone that is tri-unsaturated.

broader term: C₃₇ alkenone

C37:4 alkenone

definition: a C37 alkenone that is tetra-unsaturated.
broader term: C37 alkenone

C4 plants

definition: an ecosystem variable that quantifies the presence of plants using the Hatch-Slack photosynthetic pathway.
broader term: ecosystem quantity

cadmium

definition: a chemical element with atomic number 48.
broader term: element or single-element molecule
synonym: Cd

cadmium/calcium

definition: the elemental ratio of cadmium to calcium.
broader term: element or compound ratio
synonym: Cd/Ca

calcification rate

definition: a rate of skeletal growth in calcifying organisms, often expressed as a mass times unit area per time (e.g., g cm²/yr)
broader term: formation rate

calcite

definition: a calcium carbonate with rhombohedral crystal structure.
broader term: calcium carbonate
synonym: CaCO₃

calcite saturation state

definition: a chemical variable that is defined as the product of the concentrations of dissolved calcium and carbonate ions in seawater divided by the product of calcite at equilibrium.
broader term: solution property

calcium

definition: a chemical element with atomic number 20.
broader term: element or single-element molecule
synonym: Ca
narrower term: non-sea-salt calcium

calcium carbonate

definition: a carbonate with the chemical formula CaCO₃ but of unspecified crystal structure.
broader term: carbonate
narrower term: aragonite
narrower term: calcite

calcium carbonate compensation depth

definition: the depth in the oceans below which the rate of supply of calcium carbonate is equal to its dissolution and no calcium carbonate is preserved.
broader term: chemical variable
synonym: calcite compensation depth

synonym: lysocline depth

calcium dioxide

definition: an inorganic compound that has the chemical formula CaO_2 .

broader term: inorganic compound

synonym: calcium peroxide

synonym: CaO_2

calcium oxide

definition: an inorganic compound that has the chemical formula CaO (CHEBI: 31344).

broader term: inorganic compound

synonym: CaO

calcium/iron

definition: the elemental ratio of calcium to iron.

broader term: element or compound ratio

synonym: Ca/Fe

calcium/potassium

definition: the elemental ratio of calcium to potassium.

broader term: element or compound ratio

synonym: Ca/K

calcium/strontium

definition: the elemental ratio of calcium to strontium.

broader term: element or compound ratio

synonym: Ca/Sr

calcium/titanium

definition: the elemental ratio of calcium to titanium.

broader term: element or compound ratio

synonym: Ca/Ti

California Current Index

definition: a circulation index that is calculated as the leading principal component of sea level at San Francisco, an upwelling index, and the Northern Oscillation Index (i.e., the difference in sea level pressure anomalies between the North Pacific High and Darwin, Australia).

broader term: mode-of-variability variable

synonym: CCI

canonical correspondence analysis axis

definition: an axis that is derived from extension of correspondence analysis in which there is an extra restriction that the axes be linear combinations of environmental variables. Contributors should indicate which principal component is being reported (e.g., CCA#1) and briefly describe the sort of data analyzed (e.g., grain size, multiple geochemical proxies) in the "Additional Information" field.

broader term: correspondence analysis axis

canopy height

definition: the vertical height above the surface of the plant or vegetation canopy (CF: canopy_height).

broader term: ecosystem quantity

caracolite

definition: a sulfate mineral with the formula $\text{Na}_2(\text{Pb}_2\text{Na})(\text{SO}_4)_3\text{Cl}$ (Dana 8th ed.: 30.3.2.1; Nickel-Strunz 10th (pending) ed.: 7.BD.20; <https://www.mindat.org/min-890.html>).
broader term: sulfate mineral

carbohydrate

definition: an organooxygen compound that contains only carbon, hydrogen and oxygen atoms and that prior to any oxidation or reduction, generally have the empirical formula $\text{C}_m(\text{H}_2\text{O})_n$ (CHEBI: 16646).
broader term: organooxygen compound
narrower term: galactosan
narrower term: levoglucosan
narrower term: mannosan

carbon

definition: a chemical element with atomic number 6.
broader term: element or single-element molecule
synonym: C
narrower term: inorganic carbon
narrower term: organic carbon

carbon dioxide

definition: an inorganic compound that has the chemical formula CO_2 (CHEBI: 16526).
broader term: inorganic compound
synonym: CO_2

carbon monoxide

definition: an inorganic compound that has the chemical formula CO (CHEBI: 17245).
broader term: inorganic compound
synonym: CO

carbon preference index

definition: an organic compound index that is based on n-alkanes defined as $(\text{C}_{23}+2\cdot(\text{C}_{25}+\text{C}_{27}+\text{C}_{29}+\text{C}_{31})) / (\text{C}_{33}+2\cdot(\text{C}_{24}+\text{C}_{26}+\text{C}_{28}+\text{C}_{30}+\text{C}_{32}))$ by Bray and Evans 1961 to quantify preservation/degradation patterns in sediments and/or source material of n-alkanes.
broader term: organic compound index
synonym: CPI

carbon/nitrogen

definition: the elemental ratio of carbon to nitrogen.
broader term: element or compound ratio
synonym: C/N
narrower term: organic carbon/nitrogen

carbon/sulfur

definition: the elemental ratio of carbon to sulfur.
broader term: element or compound ratio
synonym: C/S

carbonate

definition: an identified mineral characterized by a fundamental anionic structure of CO_3^{2-} (Dictionary of Geological Terms).
broader term: identified mineral
narrower term: ankerite

narrower term: calcium carbonate

narrower term: cebaite

narrower term: dolomite

narrower term: rhodochrosite

narrower term: siderite

carbonate ion

definition: the abundance or concentration of CO₃²⁻ in seawater.

broader term: inorganic compound

carotenoid

definition: an organic pigment that is produced by plants and algae as well as several bacteria and fungi, and that are formed from 8 isoprene (C₅H₈) molecules with or without additional oxygen atoms (CHEBI: 23044).

broader term: organic pigment

cebaite

definition: a carbonate with the formula Ba₃Ce₂(CO₃)₅F₂ (Dana 8th ed.: 16a.01.09.01; Nickel-Strunz 10th (pending) ed.: 05.BD.15; <https://www.mindat.org/min-923.html>).

broader term: carbonate

centric:pennate diatom

definition: the ratio of centric to pennate diatoms in a sample.

broader term: diatom ratio

cerium

definition: a chemical element with atomic number 58.

broader term: element or single-element molecule

synonym: Ce

cesium

definition: a chemical element with atomic number 55.

broader term: element or single-element molecule

synonym: caesium

synonym: Cs

chain length index

definition: an organic compound index that is a measure of the number of carbon atoms in a organic compound chain.

broader term: organic compound index

narrower term: average chain length

narrower term: modal chain length

chalcocite

definition: a sulfide mineral with the formula Cu₂S (Dana 8th ed.: 2.4.7.1; Nickel-Strunz 10th (pending) ed.: 2.BA.05; <https://www.mindat.org/min-962.html>).

broader term: sulfide mineral

chalcosiderite

definition: a phosphate mineral with the formula CuFe₆3+(PO₄)₄(OH)₈·4H₂O (Dana 8th ed.: 42.9.3.4; Nickel-Strunz 10th (pending) ed.: 8.DD.15; <https://www.mindat.org/min-945.html>).

broader term: phosphate mineral

chamosite

definition: a chlorite mineral with the formula $(\text{Fe}^{2+}, \text{Mg}, \text{Al}, \text{Fe}^{3+})_6(\text{Si}, \text{Al})_4\text{O}_{10}(\text{OH}, \text{O})_8$ (Dana 8th ed.: 71.4.1.7; Nickel-Strunz 10th (pending) ed.: 9.EC.55; <https://www.mindat.org/min-967.html>).

broader term: chlorite

characteristic remanent magnetization

definition: the natural remanent magnetization that a rock acquires during its formation.

broader term: natural remanent magnetization

synonym: ChRM

narrower term: characteristic remanent magnetization declination

narrower term: characteristic remanent magnetization inclination

narrower term: maximum angular deviation

narrower term: paleointensity

characteristic remanent magnetization declination

definition: the angle of offset between the magnetic north of a sample's characteristic remanent magnetization and true north.

broader term: characteristic remanent magnetization

characteristic remanent magnetization inclination

definition: the angle between a horizontal plane and the characteristic remanent magnetization field lines of a material. This quantity can be used to infer paleolatitude.

broader term: characteristic remanent magnetization

charcoal

definition: a bulk biological material that consists of any black-colored plant-derived material that has had its chemical composition and structure altered as a result of heating in a fire, and retains recognizable anatomic structure of the plant material, even if only in a fragmentary form (Smol et al. 2001 Tracking Environmental Change Using Lake Sediments).

broader term: bulk biological material

chemical composition

definition: the amounts or relative amounts of the elements, or isotopes of the elements, that constitute a substance.

broader term: what

narrower term: compound

narrower term: element or compound ratio

narrower term: element or single-element molecule

narrower term: isotope

narrower term: solution property

chemical variable

definition: an earth system variable that relates to the chemical composition or properties of a component of the earth system.

broader term: earth system variable

narrower term: calcium carbonate compensation depth

chkalovite

definition: a silicate mineral with the formula $\text{Na}_2\text{BeSi}_2\text{O}_6$ (Dana 8th ed.: 65.5.2.1; Nickel-Strunz 10th (pending) ed.: 9.DM.20; <https://www.mindat.org/min-1007.html>).

broader term: silicate mineral

chloride

definition: chlorine that has acquired a negative one charge as the result of gaining an electron.

broader term: chlorine

synonym: Cl⁻

chlorin

definition: an aromatic compound with the formula C₂₀H₁₆N₄ (CHEBI: 36303).

broader term: aromatic compound

chlorine

definition: a chemical element with atomic number 17.

broader term: element or single-element molecule

synonym: Cl

narrower term: chloride

chlorine/potassium

definition: the elemental ratio of chlorine to potassium.

broader term: element or compound ratio

synonym: Cl/K

chlorite

definition: a silicate mineral with the general formula (Mg, Fe²⁺, Fe³⁺)₆AlSi₃O₁₀(OH)₁₀ (www.mindat.org/min-1016.html).

broader term: silicate mineral

narrower term: chamosite

narrower term: clinochlore

chlorofluorocarbon

definition: an organochlorine compound derived from methane, ethane or propane that contains atoms of carbon, chlorine, and fluorine only (CHEBI: 134024).

broader term: organohalogen compound

narrower term: chlorofluorocarbon-11

narrower term: chlorofluorocarbon-12

chlorofluorocarbon-11

definition: a chlorofluorocarbon with the formula CCl₃F.

broader term: chlorofluorocarbon

synonym: CFC-11

synonym: trichlorofluoromethane

chlorofluorocarbon-12

definition: a chlorofluorocarbon with the formula CCl₂F₂.

broader term: chlorofluorocarbon

synonym: CFC-12

synonym: dichlorodifluoromethane

chlorophyll

definition: an organic pigment that is any of several green pigments found in cyanobacteria and the chloroplasts of algae and plants and that is composed of carbon, hydrogen, oxygen, nitrogen, and magnesium (Wikipedia; CHEBI: 28966).

broader term: organic pigment

chlorophyte

definition: an identifiable organism that belongs to the green algae, namely kingdom Plantae, division Chlorophyta (TSN: 5414).

broader term: organism

narrower term: identified chlorophyte

cholestanol

definition: a sterol that has the chemical formula C₂₇H₄₈O and IUPAC stereodescriptor (3S,5S,8S,9S,10S,13R,14S,17R) and that has frequently been used as a biomarker for the presence of fecal matter in the environment (PubChem: 157118).

broader term: sterol

cholesterol

definition: a sterol that has the chemical formula C₂₇H₄₆O (CHEBI: 16113).

broader term: sterol

chroma

definition: a dimension of the Munsell color system that represents color purity or saturation, with lower values indicating less saturation.

broader term: Munsell color system

chromium

definition: a chemical element with atomic number 24.

broader term: element or single-element molecule

synonym: Cr

chrysoberyl

definition: an oxide or hydroxide mineral with the formula BeAl₂O₄ (Dana 8th ed.:7.2.9.1; Nickel-Strunz 10th (pending) ed.:4.BA.05; <https://www.mindat.org/min-1039.html>).

broader term: oxide and hydroxide minerals

chrysophyte

definition: an identifiable organism commonly known as golden or golden-brown algae that belongs to the kingdom Chromista, class Chrysophyceae (TSN: 1448).

broader term: organism

synonym: chryomonads

synonym: Chrysophyceae

synonym: golden algae

synonym: golden-brown algae

narrower term: total chrysophyte cysts

narrower term: total chrysophyte scales

Cibicides kullenbergi

definition: a particular species of the genus Cibicides (TSN: 45700; urn:lsid:marinespecies.org:taxname:112873).

broader term: identified foraminifer

Cibicidoides mundula

definition: a particular species of the genus Cibicidoides (urn:lsid:marinespecies.org:taxname:418067).

broader term: identified foraminifer

Cibicidoides pachyderma

definition: a particular species of the genus Cibicidoides (urn:lsid:marinespecies.org:taxname:112884).

broader term: identified foraminifer

synonym: Cibicides pachyderma

Cibicidoides wuellerstorfi

definition: a particular species of the genus Cibicidoides (urn:lsid:marinespecies.org:taxname:112890).

broader term: identified foraminifer

CIE L*a*b* color system

definition: reflectance that is quantified according to the International Commission on Illumination (CIE) color space defined by one lightness axis and two chrominance axes, exceeding those colors visible to humans.

broader term: reflectance

synonym: CIELAB color system

narrower term: blue-yellow contrast

narrower term: lightness

narrower term: red-green contrast

CIE X

definition: a parameter of the CIEXYZ color system that is a mix of cone response curves chosen to be non-negative (Wikipedia).

broader term: CIEXYZ color system

CIE Y

definition: a parameter of the CIEXYZ color system that is a measure of luminance.

broader term: CIEXYZ color system

CIE Z

definition: a parameter of the CIEXYZ color system that is approximately equal to blue color.

broader term: CIEXYZ color system

CIEXYZ color system

definition: reflectance that is quantified according to the International Commission on Illumination (CIE) color space defined by three parameters that are mathematical extrapolations of the Red-Green-Blue (RGB) color space that is visible to humans.

broader term: reflectance

narrower term: CIE X

narrower term: CIE Y

narrower term: CIE Z

circulation variable

definition: an earth system variable that describes or quantifies motion and related properties in the atmosphere or ocean.

broader term: earth system variable

narrower term: Antarctic Bottom Water

narrower term: atmospheric boundary layer thickness

narrower term: barotropic streamfunction

narrower term: divergence

narrower term: geopotential height

narrower term: Hadley circulation index

narrower term: ice sheet velocity

narrower term: Intertropical Convergence Zone index
narrower term: jet stream position
narrower term: kinetic energy dissipation
narrower term: meridional overturning streamfunction
narrower term: mixed layer depth
narrower term: North Atlantic Deep Water
narrower term: North Pacific Intermediate Water
narrower term: northward ocean heat transport
narrower term: northward ocean salt transport
narrower term: relative vorticity
narrower term: sea ice velocity
narrower term: sea level pressure
narrower term: sea water velocity
narrower term: storm variable
narrower term: surface pressure
narrower term: surface stress
narrower term: ventilation age
narrower term: vertical pressure velocity
narrower term: wind direction
narrower term: wind speed

cladoceran

definition: an identifiable organism commonly known as a water flea that belongs to the kingdom Animalia, phylum Arthropoda, class Branchiopoda, order Cladocera (TSN: 83832).
broader term: organism
narrower term: cladoceran index
narrower term: identified cladoceran

cladoceran index

definition: a measurement of cladocerans, such as a ratio or count, that is derived from a series of observations and that is used as an indicator or measure.
broader term: cladoceran
narrower term: total ehippia

clay

definition: the abundance or concentration of particles with a diameter less than 0.004 millimeters.
broader term: grain size class

cleavelandite

definition: albite with the formula $\text{NaAlSi}_3\text{O}_8$ (<https://www.mindat.org/min-7688.html>).
broader term: albite

clinochlore

definition: a chlorite mineral with the formula $\text{Mg}_5\text{Al}(\text{AlSi}_3\text{O}_{10})(\text{OH})_8$ (Dana 8th ed.: 71.4.1.4; Nickel-Strunz 10th (pending) ed.: 9.EC.55; <https://www.mindat.org/min-1070.html>).
broader term: chlorite
synonym: leuchtenbergite

clinoenstatite

definition: a pyroxene with the formula MgSiO_3 (Dana 8th ed.: 65.1.1.1; Nickel-Strunz 10th (pending) ed.: 9.DA.10; <https://www.mindat.org/min-1072.html>).
broader term: pyroxene

cloud condensed water content

definition: the quantity of condensed water, both liquid and ice, present in an atmospheric column or layer (CF: atmosphere_mass_content_of_cloud_condensed_water).

broader term: hydroclimate quantity

narrower term: cloud ice content

narrower term: cloud liquid water content

cloud cover

definition: the ratio of total sky obscured by clouds when measured from a particular location (CF: cloud_area_fraction).

broader term: hydroclimate ratio

cloud ice content

definition: the quantity of condensed water in the form of ice present in an atmospheric column or layer (CF: atmosphere_mass_content_of_cloud_ice, mass_content_of_cloud_ice_in_atmosphere_layer).

broader term: cloud condensed water content

cloud ice mixing ratio

definition: the hydroclimate ratio of the mass of ice within a parcel of air to the mass of dry air (CF: cloud_ice_mixing_ratio).

broader term: hydroclimate ratio

cloud liquid water content

definition: the quantity of condensed water in the form of liquid water present in an atmospheric column or layer

(CF: atmosphere_mass_content_of_cloud_liquid_water, mass_content_of_cloud_liquid_water_in_atmosphere_layer).

broader term: cloud condensed water content

cloud liquid water mixing ratio

definition: the hydroclimate ratio of the mass of liquid water within a parcel of air to the mass of dry air (CF: cloud_liquid_water_mixing_ratio).

broader term: hydroclimate ratio

cobalt

definition: a chemical element with atomic number 27.

broader term: element or single-element molecule

synonym: Co

coccolithophore

definition: an identifiable organism that is a unicellular phytoplankton and that belongs to the kingdom Chromista, phylum Haptophyta, class Prymnesiophyceae (TSN: 2135).

broader term: organism

narrower term: coccolithophore index

narrower term: identified coccolithophore

coccolithophore index

definition: a measurement of coccolithophores, such as a ratio or count, that is derived from a series of observations and that is used as an indicator or measure.

broader term: coccolithophore

narrower term: total calcareous nannofossils

narrower term: total coccoliths

coercivity

definition: the measure of the reverse field needed to reduce the magnetization of a material to zero after it has been fully magnetized.

broader term: magnetic field properties

synonym: Hc

narrower term: coercivity of remanence

coercivity of remanence

definition: the measure of the reverse field needed to reduce the saturation isothermal remanence magnetization of a material to zero, and that is an indicator of magnetic grain size and mineralogy (hematite, goethite, and greigite are high coercivity minerals).

broader term: coercivity

synonym: (B0)CR

synonym: Hr

coercivity of remanence/coercivity

definition: a magnetic ratio of the coercivity of remanence to the coercivity, which can yield a qualitative measure of magnetic grain size.

broader term: magnetic ratios

synonym: HCR/HC

coherent scattering

definition: a measure of scattering in x-ray fluorescence analysis, that together with incoherent scattering can be used as a proxy for the amount of organic matter in a sample.

broader term: scattering

collection date

definition: sampling metadata that identifies the date that the physical sample was collected.

broader term: sampling metadata

collection elevation

definition: sampling metadata that identifies the elevation, either above or below sea level, at which a sample was collected or a reconstruction was generated.

broader term: sampling metadata

collection water depth

definition: sampling metadata that identifies the depth of water above the sampling site.

broader term: sampling metadata

compound

definition: a chemical that is composed of two or more elements.

broader term: chemical composition

narrower term: inorganic compound

narrower term: organic compound

convective precipitation

definition: precipitation (rain+snow) that originates from convective storms parameterized by the model convection scheme (CF: convective_precipitation_amount, convective_precipitation_flux, convective_precipitation_rate, lwe_convective_precipitation_rate, lwe_thickness_of_convective_precipitation_amount).

broader term: precipitation

convective snowfall

definition: snowfall that originates from convective storms parameterized by the model convection scheme (CF: convective_snowfall_amount, convective_snowfall_flux, lwe_convective_snowfall_rate, lwe_thickness_of_convective_snowfall_amount, thickness_of_convective_snowfall_amount).

broader term: snowfall

copper

definition: a chemical element with atomic number 29.

broader term: element or single-element molecule

synonym: Cu

copper/calcium

definition: the elemental ratio of copper to calcium.

broader term: element or compound ratio

synonym: Cu/Ca

coprostanol

definition: a sterol that has the chemical formula C₂₇H₄₈O and IUPAC stereodescriptor (3S,5R,8R,9S,10S,13R,14S,17R) and that has frequently been used as a biomarker for the presence of fecal matter in the environment (CHEBI: 89519; PubChem: 221122).

broader term: sterol

cordierite

definition: a silicate mineral with the formula Mg₂Al₄Si₅O₁₈ (Dana 8th ed.: 61.02.01.01; Nickel-Strunz 10th (pending) ed.: 09.CJ.10; <https://www.mindat.org/min-1128.html>).

broader term: silicate mineral

correspondence analysis axis

definition: a multivariate eigenvector-based variable that is one of a set of linearly uncorrelated variables that are derived using an orthogonal transformation on a set of categorical data observations. Contributors should indicate which principal component is being reported (e.g., CA#1) and briefly describe the sort of data analyzed (e.g., grain size, multiple geochemical proxies) in the "Additional Information" field.

broader term: multivariate eigenvector-based variable

narrower term: canonical correspondence analysis axis

narrower term: detrended correspondence analysis axis

cosmic ray flux

definition: a measure of the flux of high-energy radiation mainly originating outside the solar system into the earth's atmosphere.

broader term: forcing variable

cosmic ray-induced ionization

definition: a measure of the ionization of the earth's atmosphere by galactic cosmic rays.

broader term: forcing variable

covellite

definition: a sulfide mineral with the formula CuS (Dana 8th ed.: 2.8.12.1; Nickel-Strunz 10th (pending) ed.: 2.CA.05a; <https://www.mindat.org/min-1144.html>).

broader term: sulfide mineral

crystalite

definition: a silicate mineral with the formula SiO_2 (Dana 8th ed.: 75.1.1.1; Nickel-Strunz 10th (pending) ed.: 4.DA.15; <https://www.mindat.org/min-1155.html>).
broader term: silicate mineral

crystallite

definition: a serpentine with the formula $(\text{Fe}^{2+}, \text{Fe}^{3+})_3(\text{Si}, \text{Fe}^{3+})_2\text{O}_5(\text{OH})_4$ (Dana 8th ed.: 71.1.4.7; Nickel-Strunz 10th (pending) ed.: 9.ED.15; <https://www.mindat.org/min-1158.html>).
broader term: serpentine

cryospheric process

definition: a variable that quantifies aspects of cryosphere dynamics or thermodynamics such as fluxes of energy or mass.
broader term: cryospheric variable
narrower term: ice sheet calving
narrower term: ice sheet melt

cryospheric quantity

definition: a variable that quantifies some aspect of the components of the cryosphere.
broader term: cryospheric variable
narrower term: bedrock elevation
narrower term: equilibrium line altitude
narrower term: ice break-up date
narrower term: ice sheet area
narrower term: ice sheet elevation
narrower term: ice sheet thickness
narrower term: ice sheet volume
narrower term: sea ice cover
narrower term: sea ice thickness
narrower term: sea ice volume
narrower term: snow cover
narrower term: snow depth
narrower term: snow volume
narrower term: snow water equivalent

cryospheric variable

definition: an earth system variable that relates to those parts of the earth surface where water is in solid form.

broader term: earth system variable
narrower term: cryospheric process
narrower term: cryospheric quantity

cyclic alkane

definition: an alkane with one or more rings or loops.
broader term: alkane

cyclization index of branched tetraethers

definition: an organic compound index that is calculated from the ratio of branched tetraethers with one cyclopentane moiety to those with none, defined by Weijers et al. 2007 as: $-\log((I_b + II_b)/(I_a + II_a))$, and that is correlated to soil pH.

broader term: organic compound index

synonym: CBT index

delta 11B

definition: the ratio of 11B/10B in a sample compared to that of a standard, typically NIST SRM 951, as in: $((11B/10B \text{ sample})/(11B/10B \text{ standard}) - 1) \times 1000$.

broader term: isotope ratio

synonym: d11B

synonym: delta B11

delta 13C

definition: the ratio of 13C/12C in a sample compared to that of a standard, typically the Pee Dee Belemnite, as in: $((13C/12C \text{ sample})/(13C/12C \text{ standard}) - 1) \times 1000$.

broader term: isotope ratio

synonym: d13C

synonym: delta C13

delta 13C photosynthetic fractionation factor

definition: an isotope fractionation factor for delta 13C that represents the fractionation that occurs during photosynthesis. This quantity is typically calculated as $[(\delta 13C_a/1000 + 1)/(\delta 13C_b/1000 + 1) - 1] \times 1000$ where a and b represent the product and the reactant, respectively.

broader term: isotope fractionation factor

Delta 14C

definition: the ratio of 14C/12C in a sample compared to that of a standard, typically 19th century wood, as in: $((14C/12C \text{ sample})/(14C/12C \text{ standard}) - 1) \times 1000$.

broader term: isotope ratio

synonym: D14C

synonym: Delta C14

delta 15N

definition: the ratio of 15N/14N in a sample compared to that of a standard, typically modern air ratios, as in: $((15N/14N \text{ sample})/(15N/14N \text{ standard}) - 1) \times 1000$.

broader term: isotope ratio

synonym: d15N

synonym: delta N15

narrower term: delta 15N excess

delta 15N excess

definition: a measure of the deviation of a delta 15N value from the value calculated from delta 40Ar measured on the same sample assuming that differences between the two isotopic ratios are caused only by differences in gravitational settling, that is $\delta 15N - \delta 40Ar/4$. This quantity is used to reconstruct temperature.

broader term: delta 15N

synonym: d15N excess

delta 17O

definition: the ratio of 17O/16O in a sample compared to that of a standard, as in: $((17O/16O \text{ sample})/(17O/16O \text{ standard}) - 1) \times 1000$.

broader term: isotope ratio

synonym: d17O

synonym: delta O17

narrower term: delta 17O excess

delta 17O excess

definition: a measure of the deviation of a delta 17O value from the value calculated from delta 18O on the same sample assuming mass-independent fractionation, that is $\delta 17O - 0.52 \delta 18O$.

broader term: delta 17O

synonym: d17O excess

synonym: Delta 17O

delta 18O

definition: the ratio of 18O/16O in a sample compared to that of a standard, typically either Pee Dee Belemnite or standard mean ocean water, as in: $((18O/16O \text{ sample}) / (18O/16O \text{ standard}) - 1) \times 1000$.

broader term: isotope ratio

synonym: d18O

synonym: delta O18

delta 29Si

definition: the ratio of 29Si/28Si in a sample compared to that of a standard, typically NBS 28, as in: $((29Si/28Si \text{ sample}) / (29Si/28Si \text{ standard}) - 1) \times 1000$.

broader term: isotope ratio

synonym: d29Si

synonym: delta Si29

delta 2H

definition: the ratio of 2H/1H in a sample compared to that of a standard, typically standard mean ocean water, as in: $((2H/1H \text{ sample}) / (2H/1H \text{ standard}) - 1) \times 1000$.

broader term: isotope ratio

synonym: d2H

synonym: dD

synonym: delta D

synonym: delta H2

narrower term: deuterium excess

delta 2H apparent fractionation factor

definition: an isotope fractionation factor for delta 2H that represents the sum of many individual fractionations during physical and biochemical processes. This quantity is typically calculated as $[(\delta 2H_a / 1000 + 1) / (\delta 2H_b / 1000 + 1) - 1] \times 1000$ where a and b represent the product and the reactant, respectively.

broader term: isotope fractionation factor

delta 30Si

definition: the ratio of 30Si/28Si in a sample compared to that of a standard, typically NBS 28, as in: $((30Si/28Si \text{ sample}) / (30Si/28Si \text{ standard}) - 1) \times 1000$.

broader term: isotope ratio

synonym: d30Si

synonym: delta Si30

delta 33S

definition: the ratio of 33S/32S in a sample compared to that of a standard, typically Vienna-CDT, as in: $((33S/32S \text{ sample}) / (33S/32S \text{ standard}) - 1) \times 1000$.

broader term: isotope ratio

synonym: d33S

synonym: delta S33

delta 34S

definition: the ratio of $^{34}\text{S}/^{32}\text{S}$ in a sample compared to that of a standard, typically Vienna-CDT, as in: $((^{34}\text{S}/^{32}\text{S} \text{ sample})/(^{34}\text{S}/^{32}\text{S} \text{ standard}) - 1) \times 1000$.

broader term: isotope ratio

synonym: d34S

synonym: delta S34

delta 36S

definition: the ratio of $^{36}\text{S}/^{32}\text{S}$ in a sample compared to that of a standard, typically Vienna-CDT, as in: $((^{36}\text{S}/^{32}\text{S} \text{ sample})/(^{36}\text{S}/^{32}\text{S} \text{ standard}) - 1) \times 1000$.

broader term: isotope ratio

synonym: d36S

synonym: delta S36

delta 40Ar

definition: the ratio of $^{40}\text{Ar}/^{36}\text{Ar}$ in a sample compared to that of a standard, as in: $((^{40}\text{Ar}/^{36}\text{Ar} \text{ sample})/(^{40}\text{Ar}/^{36}\text{Ar} \text{ standard}) - 1) \times 1000$.

broader term: isotope ratio

synonym: d40Ar

synonym: delta Ar40

delta 87Sr

definition: the ratio of $^{87}\text{Sr}/^{86}\text{Sr}$ in a sample compared to that of a standard, as in: $((^{87}\text{Sr}/^{86}\text{Sr} \text{ sample})/(^{87}\text{Sr}/^{86}\text{Sr} \text{ standard}) - 1) \times 1000$.

broader term: isotope ratio

synonym: d87Sr

synonym: delta Sr87

delta Ar/N2

definition: an elemental ratio that describes the ratio of argon to nitrogen gas in a sample compared to the same ratio in a standard with units of per meg (or per mil), that is: $((\text{Ar}/\text{N}_2 \text{ sample})/(\text{Ar}/\text{N}_2 \text{ standard}) - 1) \times 10^6$ (or $\times 10^3$).

broader term: element or compound ratio

synonym: delta argon/nitrogen

delta CO2/N2

definition: an elemental ratio that describes the ratio of carbon dioxide to nitrogen gas in a sample compared to the same ratio in a standard with units of per meg (or per mil), that is: $((\text{CO}_2/\text{N}_2 \text{ sample})/(\text{CO}_2/\text{N}_2 \text{ standard}) - 1) \times 10^6$ (or $\times 10^3$).

broader term: element or compound ratio

synonym: delta carbon dioxide/nitrogen

delta O2/Ar

definition: an elemental ratio that describes the ratio of oxygen gas to argon in a sample compared to the same ratio in a standard with units of per meg (or per mil), that is: $((\text{O}_2/\text{Ar} \text{ sample})/(\text{O}_2/\text{Ar} \text{ standard}) - 1) \times 10^6$ (or $\times 10^3$).

broader term: element or compound ratio

synonym: delta oxygen/argon

delta O2/N2

definition: an elemental ratio that describes the ratio of oxygen gas to nitrogen gas in a sample compared to the same ratio in a standard with units of per meg (or per mil), that is: $((O_2/N_2 \text{ sample})/(O_2/N_2 \text{ standard}) - 1) \times 10^6$ (or $\times 10^3$).

broader term: element or compound ratio

synonym: delta oxygen/nitrogen

delta reservoir age

definition: an adjustment to ocean reservoir age that accounts for local disequilibrium between atmospheric and surface ocean ^{14}C .

broader term: reservoir age

denitrification

definition: an ecosystem process variable that quantifies the conversion of nitrate into gaseous compounds such as nitric oxide, nitrous oxide and molecular nitrogen which are then emitted to the atmosphere (CF definition).

broader term: ecosystem process

density

definition: a physical property that quantifies the compactness of a substance.

broader term: physical property

narrower term: earlywood density

narrower term: latewood density

narrower term: maximum density

narrower term: minimum density

narrower term: σ_t

narrower term: σ_θ

narrower term: total ring density

depth

definition: the location of the midpoint of a sample measured as a distance from some datum, usually the core top.

broader term: depth variable

narrower term: depth at sample end

narrower term: depth at sample start

depth at sample end

definition: the location of the youngest end of a sample measured as a distance from some datum, usually the core top.

broader term: depth

depth at sample start

definition: the location of the oldest end of a sample measured as a distance from some datum, usually the core top.

broader term: depth

depth variable

definition: measurements of the location of a sample within a core, usually relative to either the core top or core bottom.

broader term: what

narrower term: depth

detrended correspondence analysis axis

definition: an axis that is derived from extension of correspondence analysis in which artifacts in the data are removed. Contributors should indicate which principal component is being reported (e.g., DCA#1) and briefly describe the sort of data analyzed (e.g., grain size, multiple geochemical proxies) in the "Additional Information" field.

broader term: correspondence analysis axis

deuterium excess

definition: a measure of how different a delta 2H value is from the value expected from the Global Meteoric Water Line, that is $\delta 2H - 8 * \delta 18O$.

broader term: delta 2H

synonym: 2H excess

synonym: d-excess

diameter

definition: a physical property that is the length of a straight line connecting two sides of a body through its center.

broader term: physical property

synonym: diametre

narrower term: grain size

narrower term: tracheid diameter

diatom

definition: an identifiable organism that is a unicellular phytoplankton and that belongs to the kingdom Chromista, phylum Ochrophyta, class Bacillariophyceae (TSN: 2287).

broader term: organism

narrower term: diatom index

narrower term: identified diatom

diatom habitat-based index

definition: a diatom index that indicates environmental conditions based on the habitat preferences of diatoms in a sample. Only several commonly-used categories are provided. Custom, study-specific measurements should use the general "diatom habitat-based index" term and enter a description into the "Additional Information" free-text field.

broader term: diatom index

narrower term: total aerophilic diatoms

narrower term: total benthic diatoms

narrower term: total edaphic diatoms

narrower term: total ice diatoms

narrower term: total meroplanktic diatoms

narrower term: total neritic diatoms

narrower term: total planktic diatoms

narrower term: total rheophilic diatoms

diatom index

definition: a measurement of diatoms, such as a ratio or count, that is derived from a series of observations and that is used as an indicator or measure.

broader term: diatom

narrower term: diatom habitat-based index

narrower term: diatom morphology-based index

narrower term: diatom ratio

narrower term: diatom tolerance-based index

narrower term: total diatoms

diatom morphology-based index

definition: a diatom index that indicates environmental conditions based on the morphological types of diatoms in a sample. Only several commonly-used categories are provided. Custom, study-specific measurements should use the general "diatom morphology-based index" term and enter a description into the "Additional Information" free-text field.

broader term: diatom index

narrower term: total centric diatoms

narrower term: total pennate diatoms

diatom ratio

definition: a diatom index that indicates environmental conditions based on the ratio of two different groups of diatoms in a sample. Only several commonly-used ratios are provided. Custom, study-specific ratios should use the general "diatom ratio" term and enter a description into the "Additional Information" free-text field.

broader term: diatom index

narrower term: araphid:raphid diatom

narrower term: centric:pennate diatom

narrower term: neritic:pelagic diatom

narrower term: planktic:benthic diatom

diatom tolerance-based index

definition: a diatom index that indicates environmental conditions based on the environmental tolerances of diatoms in a sample. Only several commonly-used categories are provided. Custom, study-specific measurements should use the general "diatom tolerance-based index" term and enter a description into the "Additional Information" free-text field.

broader term: diatom index

narrower term: total acidiphilic diatoms

narrower term: total alkaliphilic diatoms

narrower term: total cold water diatoms

narrower term: total copiotrophic diatoms

narrower term: total deep water diatoms

narrower term: total freshwater diatoms

narrower term: total oligotrophic diatoms

narrower term: total saline diatoms

narrower term: total salinity indifferent diatoms

narrower term: total shallow water diatoms

narrower term: total warm water diatoms

diazotroph

definition: the quantity of phytoplankton of the phylum cyanobacteria distinct from other phytoplankton groups in their ability to fix nitrogen gas in addition to nitrate and ammonium (CF: mole_concentration_of_diazotrophs_expressed_as_carbon_in_sea_water).

broader term: phytoplankton

dickite

definition: a kaolinite mineral with the formula $Al_2Si_2O_5(OH)_4$ (Dana 8th ed.: 71.1.1.1; Nickel-Strunz 10th (pending) ed.: 9.ED.05; <https://www.mindat.org/min-1287.html>).

broader term: kaolinite

dinoflagellate

definition: an identifiable organism that belongs to the kingdom Chromista, division Pyrrophytophyta (TSN: 9873).

broader term: organism

narrower term: dinoflagellate index

narrower term: identified dinoflagellate

dinoflagellate index

definition: a measurement of dinoflagellates, such as a ratio or count, that is derived from a series of observations and that is used as an indicator or measure.

broader term: dinoflagellate

narrower term: total dinocysts

dinosterol

definition: a sterol that has the chemical formula $C_{30}H_{52}O$ and that is synthesized by several genera of dinoflagellates.

broader term: sterol

dinosterol ice proxy with 25 carbon atoms index

definition: an organic compound index that is calculated as the ratio of ice proxy with 25 carbon atoms (IP25) to dinosterol and that is a sea ice indicator.

broader term: organic compound index

synonym: PDIP25

Dipole Mode Index

definition: a circulation index that measures the anomalous zonal sea surface temperature gradient across the equatorial Indian Ocean and that is defined as the difference in anomalies between a western (60-80E, 10S-10N) and eastern (90-110E, 10S-0) box.

broader term: mode-of-variability variable

synonym: DMI

dissociation constant

definition: a quantity expressing the extent to which a particular substance in solution is dissociated into ions, equal to the product of the concentrations of the respective ions divided by the concentration of the undissociated molecule.

broader term: solution property

dissolved inorganic carbon

definition: the sum of all inorganic carbon species dissolved in a solution. The inorganic carbon species include carbon dioxide, carbonic acid, bicarbonate anion, and carbonate.

broader term: inorganic carbon

synonym: DIC

synonym: total CO₂

dissolved iron

definition: the amount of iron dissolved in a solution.

broader term: iron

dissolved organic carbon

definition: the sum of all organic carbon species dissolved in a solution.

broader term: organic carbon

synonym: DOC

dissolved organic nitrogen

definition: the sum of all organic nitrogen species dissolved in a solution.

broader term: nitrogen

synonym: DON

dissolved organic phosphorus

definition: the sum of all organic phosphorus species dissolved in a solution.

broader term: phosphorus

synonym: DOP

dissolved oxygen

definition: the amount of gaseous oxygen dissolved in water.

broader term: oxygen gas

dissolved phosphate

definition: the amount of phosphate dissolved in a solution.

broader term: phosphate

divergence

definition: a measure of the horizontal inflow or outflow of a fluid in the earth system, calculated as the change in velocity through space (CF: divergence_of_sea_ice_velocity, divergence_of_wind).

broader term: circulation variable

diversity index

definition: an ecosystem variable that quantitatively measures how many different types are in a community and how evenly individuals are distributed across the types.

broader term: ecosystem index

narrower term: Margalef diversity index

narrower term: Shannon diversity index

narrower term: Simpson diversity index

narrower term: total species

dolomite

definition: a carbonate with the formula $\text{CaMg}(\text{CO}_3)_2$ (Dana 8th ed.: 14.2.1.1; Nickel-Strunz 10th (pending) ed.: 5.AB.10; <https://www.mindat.org/min-1304.html>).

broader term: carbonate

dust

definition: a bulk geological material that consists of organic or inorganic particles of typically clay and silt size that are transportable by wind.

broader term: bulk geological material

dysprosium

definition: a chemical element with atomic number 66.

broader term: element or single-element molecule

synonym: Dy

earlywood

definition: wood that formed early in the growing season and that tends to consist of large and thin-walled cells.

broader term: wood

earlywood density

definition: the density of xylem cells in wood that formed in the beginning of the growing season and that tend to be large and thin-walled.

broader term: density

earlywood tracheid diameter

definition: the diameter of tracheid cells in wood that formed in the beginning of the growing season and that tend to be large and thin-walled.

broader term: tracheid diameter

earlywood width

definition: the width of the segment of an annual radial growth increment in a tree that formed early in the growing season and that tends to consist of large and thin-walled cells.

broader term: length

earth system variable

definition: quantities, processes, properties, and phenomena of the Earth system that can be either reconstructed from proxies or directly measured.

broader term: what

narrower term: chemical variable

narrower term: circulation variable

narrower term: cryospheric variable

narrower term: ecosystem variable

narrower term: energy flux variable

narrower term: forcing variable

narrower term: hydroclimatic variable

narrower term: hydrographic variable

narrower term: mode-of-variability variable

narrower term: societal event

narrower term: temperature variable

eastward wind speed

definition: the magnitude of the eastward vector component of wind at some level in the atmosphere.

Height within the atmosphere should be described in the "Additional Information" field. (CF:

eastward_wind).

broader term: wind speed

echinoid

definition: an identifiable organism including urchins and sand dollars that belongs to the kingdom Animalia, phylum Echinodermata, class Echinoidea (TSN: 157821).

broader term: organism

narrower term: echinoid index

narrower term: identified echinoid

echinoid index

definition: a measurement of echinoids, such as a ratio or count, that is derived from a series of observations and that is used as an indicator or measure.

broader term: echinoid

ecosystem index

definition: a measurement of ecosystem quantities or properties, such as a ratio or count, that is derived from a series of observations and that is used as an indicator or measure.

broader term: ecosystem variable
narrower term: biome
narrower term: diversity index
narrower term: intrinsic water use efficiency
narrower term: leaf area index
narrower term: trophic position index

ecosystem phenomenon

definition: a variable that describes an occurrence or event that is relevant to an ecosystem.
broader term: ecosystem variable
narrower term: phenological event

ecosystem process

definition: a variable that quantifies aspects of ecosystem functioning such as fluxes of energy or mass.
broader term: ecosystem variable
narrower term: biomass burning
narrower term: denitrification
narrower term: excretion
narrower term: export
narrower term: grazing
narrower term: mortality
narrower term: nitrogen fixation
narrower term: productivity
narrower term: remineralization
narrower term: soil respiration

ecosystem quantity

definition: a variable that quantifies some aspect of the components of an ecosystem.
broader term: ecosystem variable
narrower term: burned area
narrower term: C3 plants
narrower term: C4 plants
narrower term: canopy height
narrower term: litter carbon
narrower term: phytoplankton
narrower term: plant available moisture
narrower term: soil carbon
narrower term: vegetation carbon
narrower term: zooplankton

ecosystem variable

definition: an earth system variable that measures or describes quantities, properties, and processes within a community of living organisms and the nonliving components of their environment.
broader term: earth system variable
narrower term: ecosystem index
narrower term: ecosystem phenomenon
narrower term: ecosystem process
narrower term: ecosystem quantity

effective aerosol radius

definition: the area-weighted mean radius of aerosols in a sample.
broader term: radiative flux variable

El Nino event

definition: an index of the El Nino Southern Oscillation that quantifies the occurrence of anomalously warm sea surface temperatures in the eastern tropical Pacific.

broader term: El Nino Southern Oscillation Index

El Nino Southern Oscillation Index

definition: a circulation index that quantifies some aspect, atmospheric or oceanic, of the El Nino Southern Oscillation.

broader term: mode-of-variability variable

synonym: ENSO

synonym: ENSO Index

narrower term: El Nino event

narrower term: La Nina event

narrower term: Nino 1+2 sea surface temperature index

narrower term: Nino 3 sea surface temperature index

narrower term: Nino 3.4 sea surface temperature index

narrower term: Nino 4 sea surface temperature index

narrower term: Southern Oscillation Index

electrical conductivity

definition: an electrical property that quantifies the degree to which a specified material conducts electricity.

broader term: electrical property

electrical property

definition: properties that relate to how a material behaves or interacts with an applied electric current.

broader term: what

narrower term: electrical conductivity

narrower term: impedance

narrower term: resistivity

electromagnetic property

definition: properties of a material that relate to its emission of or interaction with electromagnetic radiation.

broader term: what

narrower term: absorbance

narrower term: beta activity

narrower term: gamma radiation

narrower term: luminescence

narrower term: reflectance

narrower term: transmittance

element or compound ratio

definition: a chemical composition that is the ratio of elements or of compounds.

broader term: chemical composition

narrower term: aluminum/calcium

narrower term: aluminum/titanium

narrower term: barium/aluminum

narrower term: barium/calcium

narrower term: barium/iron

narrower term: barium/titanium

narrower term: boron/calcium
narrower term: bromine/silicon
narrower term: cadmium/calcium
narrower term: calcium/iron
narrower term: calcium/potassium
narrower term: calcium/strontium
narrower term: calcium/titanium
narrower term: carbon/nitrogen
narrower term: carbon/sulfur
narrower term: chlorine/potassium
narrower term: copper/calcium
narrower term: delta Ar/N2
narrower term: delta CO2/N2
narrower term: delta O2/Ar
narrower term: delta O2/N2
narrower term: germanium/silicon
narrower term: iron/aluminum
narrower term: iron/calcium
narrower term: iron/manganese
narrower term: iron/potassium
narrower term: iron/titanium
narrower term: lanthanum/cerium
narrower term: lanthanum/thorium
narrower term: lead/barium
narrower term: lead/calcium
narrower term: lithium/calcium
narrower term: lithium/magnesium
narrower term: magnesium/aluminum
narrower term: magnesium/calcium
narrower term: manganese/aluminum
narrower term: manganese/calcium
narrower term: manganese/iron
narrower term: manganese/titanium
narrower term: molybdenum/aluminum
narrower term: niobium/titanium
narrower term: nitrogen/phosphorus
narrower term: nitrogen/sulfur
narrower term: phosphorus/aluminum
narrower term: phosphorus/calcium
narrower term: phosphorus/titanium
narrower term: potassium/aluminum
narrower term: potassium/titanium
narrower term: silicon dioxide/phosphorus
narrower term: silicon/aluminum
narrower term: silicon/potassium
narrower term: silicon/strontium
narrower term: silicon/titanium
narrower term: sodium/calcium
narrower term: strontium/calcium
narrower term: strontium/potassium
narrower term: strontium/titanium
narrower term: sulfur/calcium

narrower term: sulfur/organic carbon
narrower term: sulfur/potassium
narrower term: sulfur/titanium
narrower term: thorium/uranium
narrower term: tin/calcium
narrower term: titanium/aluminum
narrower term: titanium/calcium
narrower term: titanium/potassium
narrower term: uranium/calcium
narrower term: uranium/thorium
narrower term: vanadium/aluminum
narrower term: yttrium/calcium
narrower term: zinc/silicon
narrower term: zirconium/aluminum
narrower term: zirconium/potassium
narrower term: zirconium/strontium

element or single-element molecule

definition: a measurement of a single element.
broader term: chemical composition
narrower term: aluminum
narrower term: antimony
narrower term: argon
narrower term: arsenic
narrower term: barium
narrower term: beryllium
narrower term: bismuth
narrower term: boron
narrower term: bromine
narrower term: cadmium
narrower term: calcium
narrower term: carbon
narrower term: cerium
narrower term: cesium
narrower term: chlorine
narrower term: chromium
narrower term: cobalt
narrower term: copper
narrower term: dysprosium
narrower term: erbium
narrower term: europium
narrower term: fluorine
narrower term: gadolinium
narrower term: gallium
narrower term: germanium
narrower term: gold
narrower term: hafnium
narrower term: helium
narrower term: holmium
narrower term: hydrogen
narrower term: iridium
narrower term: iron

narrower term: krypton
narrower term: lanthanum
narrower term: lead
narrower term: lithium
narrower term: lutetium
narrower term: magnesium
narrower term: manganese
narrower term: mercury
narrower term: molybdenum
narrower term: neodymium
narrower term: neon
narrower term: nickel
narrower term: niobium
narrower term: nitrogen
narrower term: osmium
narrower term: oxygen
narrower term: palladium
narrower term: phosphorus
narrower term: platinum
narrower term: polonium
narrower term: potassium
narrower term: praseodymium
narrower term: protactinium
narrower term: rhenium
narrower term: rubidium
narrower term: samarium
narrower term: scandium
narrower term: selenium
narrower term: silicon
narrower term: silver
narrower term: sodium
narrower term: strontium
narrower term: sulfur
narrower term: tantalum
narrower term: technetium
narrower term: terbium
narrower term: thallium
narrower term: thorium
narrower term: thulium
narrower term: tin
narrower term: titanium
narrower term: tungsten
narrower term: uranium
narrower term: vanadium
narrower term: xenon
narrower term: ytterbium
narrower term: yttrium
narrower term: zinc
narrower term: zirconium

elpidite

definition: a silicate mineral with the formula $\text{Na}_2\text{ZrSi}_6\text{O}_{15}\cdot 3\text{H}_2\text{O}$ (Dana 8th ed.: 72.5.4.2; Nickel-Strunz 10th (pending) ed.: 9.DG.65; <https://www.mindat.org/min-1370.html>).
broader term: silicate mineral

empirical orthogonal function

definition: a multivariate eigenvector-based variable that is one of a set of linearly uncorrelated spatial patterns that are derived using an orthogonal transformation on a set of continuous data observations. Indicate which function is being reported (e.g., EOF #1) and describe the sort of data analyzed (e.g., grain size, multiple geochemical proxies) in the "Additional Information" field.
broader term: multivariate eigenvector-based variable
synonym: EOF

energy flux variable

definition: an earth system variable that quantifies fluxes of energy, or of properties affecting this, within the earth system.
broader term: earth system variable
narrower term: radiative flux variable
narrower term: surface heat flux
narrower term: turbulent flux variable

epicoprostanol

definition: a sterol that has the chemical formula $\text{C}_{27}\text{H}_{48}\text{O}$ and IUPAC stereodescriptor (3R,5R,8R,9S,10S,13R,14S,17R) and that has frequently been used as a biomarker for the presence of fecal matter in the environment (PubChem: 91465).
broader term: sterol

epsilon neodymium

definition: the ratio of $^{143}\text{Nd}/^{144}\text{Nd}$ in a sample compared to that of a standard, typically the chondritic uniform reservoir line, as in: $((^{143}\text{Nd}/^{144}\text{Nd} \text{ sample}) / (^{143}\text{Nd}/^{144}\text{Nd} \text{ standard}) - 1) \times 10000$.
broader term: $^{143}\text{Nd}/^{144}\text{Nd}$
synonym: epsilon Nd

equilibrium line altitude

definition: the elevation at which the mass balance of an ice sheet or glacier is zero over the year, that is where ablation equals accumulation (CF: equilibrium_line_altitude).
broader term: cryospheric quantity
synonym: ELA

erbium

definition: a chemical element with atomic number 68.
broader term: element or single-element molecule
synonym: Er

europium

definition: a chemical element with atomic number 63.
broader term: element or single-element molecule
synonym: Eu

eustatic sea level

definition: sea level that is the result of a change in the volume of water in the earth's oceans or of net changes in the volumes of the ocean basins.
broader term: sea level

evaporation

definition: the hydroclimatic rate of water transfer to the atmosphere from soil, waterbodies, and canopy interception, excluding transpiration from plants (CF: lwe_thickness_of_water_evaporation_amount, lwe_water_evaporation_rate, water_evaporation_amount, water_evaporation_flux).
broader term: hydroclimate rate

evapotranspiration

definition: the hydroclimatic rate of water transfer from the land to the atmosphere from the soil and other surfaces and from transpiration from plants.
broader term: hydroclimate rate

event layer

definition: a formation property that describes or quantifies layers within a sample that formed due to unusual environmental or climatic events.
broader term: formation property
narrower term: tree demographic and fire event code
narrower term: tree demographic and injury and fire event code

excretion

definition: an ecosystem process variable that quantifies the excretion of waste products and its related nutrient cycling.
broader term: ecosystem process

export

definition: an ecosystem process variable that quantifies the long-term removal of nutrients from an ecosystem, for example by transportation.
broader term: ecosystem process

extension rate

definition: a rate of linear growth in corals and related species, usually calculated from the width of an annual growth band.
broader term: formation rate

factor score

definition: a multivariate eigenvector-based variable that is one of a set of linearly uncorrelated independent latent variables that are derived using an orthogonal transformation on a set of continuous data observations. Contributors should indicate which principal component is being reported (e.g., Factor #1) and briefly describe the sort of data analyzed (e.g., grain size, multiple geochemical proxies) in the "Additional Information" field.
broader term: multivariate eigenvector-based variable

fatty acid

definition: an organooxygen compound with the general formula CHO_2R where R is a long aliphatic chain (i.e., lacking an especially stable ring of atoms) (CHEBI: 35366).
broader term: organooxygen compound
narrower term: saturated fatty acid
narrower term: unsaturated fatty acid

feldspar group

definition: a silicate mineral with the general formula $\text{XAl}(\text{Al,Si})_3\text{O}_8$ where X can be K, Na, Ca, Ba, Rb, Sr, or Fe (www.mindat.org/min-1624.org).

broader term: silicate mineral
narrower term: alkali feldspar series
narrower term: plagioclase feldspar series

fish

definition: an identifiable organism that belongs to the kingdom Animalia, phylum Chordata and that is a gill-bearing aquatic crainate animal that lacks limbs with digits (TSN: 158852).
broader term: organism
narrower term: fish index
narrower term: identified fish

fish index

definition: a measurement of fish, such as a ratio or count, that is derived from a series of observations and that is used as an indicator or measure.
broader term: fish

fluorescence

definition: a form of luminescence by a substance that has absorbed light or other electromagnetic radiation.
broader term: luminescence

fluoride

definition: fluorine that has acquired a negative one charge as the result of gaining an electron.
broader term: fluorine
synonym: F-

fluorine

definition: a chemical element with atomic number 9.
broader term: element or single-element molecule
synonym: F
narrower term: fluoride

foraminifer

definition: an identifiable organism that belongs to the kingdom Protozoa, order Foraminiferida (TSN: 44030).
broader term: organism
narrower term: foraminiferal index
narrower term: identified foraminifer

foraminifer fragmentation

definition: a foraminiferal index that measure the degree to which foraminifers have been broken or fragmented.
broader term: foraminiferal index

foraminiferal index

definition: a measurement of foraminifera, such as a ratio or count, that is derived from a series of observations and that is used as an indicator or measure.
broader term: foraminifer
narrower term: foraminifer fragmentation
narrower term: planktic:benthic foraminifer
narrower term: total agglutinated foraminifers
narrower term: total benthic foraminifers

narrower term: total calcareous foraminifers
narrower term: total foraminifers
narrower term: total planktic foraminifers

forcing variable

definition: an earth system variable that quantifies a forcing on the climate system that is external.
broader term: earth system variable
narrower term: anthropogenic aerosol forcing
narrower term: cosmic ray flux
narrower term: cosmic ray-induced ionization
narrower term: greenhouse gas forcing
narrower term: insolation
narrower term: orbital parameter
narrower term: solar irradiance
narrower term: solar modulation potential
narrower term: sunspot number
narrower term: volcanic forcing
narrower term: volcanic sulfate

formaldehyde

definition: an organooxygen compound with the formula CH₂O (CHEBI: 16842).
broader term: organooxygen compound
synonym: methanal

formate

definition: an organooxygen compound with the formula CHO₂⁻ (CHEBI: 15740).
broader term: organooxygen compound
synonym: methanoate

formation property

definition: processes, phenomena, and quantities that relate to or describe the formation of a physical sample.
broader term: what
narrower term: event layer
narrower term: formation rate
narrower term: horizontal displacement
narrower term: lock-in depth
narrower term: melt
narrower term: provenance
narrower term: thinning function

formation rate

definition: a formation property that quantifies the rate at which a deposit accumulated or grew through time.
broader term: formation property
narrower term: accumulation rate
narrower term: calcification rate
narrower term: extension rate
narrower term: growth rate
narrower term: sedimentation rate

formic acid

definition: a n-alkanoic acid with the formula HCOOH (CHEBI: 30751).

broader term: n-alkanoic acid

synonym: methanoic acid

gadolinium

definition: a chemical element with atomic number 64.

broader term: element or single-element molecule

synonym: Gd

galactosan

definition: a carbohydrate with the formula C₆H₁₀O₅ and IUPAC stereodescriptor (1R,2R,3S,4R,5R) (PubChem: 11744941).

broader term: carbohydrate

gallium

definition: a chemical element with atomic number 31.

broader term: element or single-element molecule

synonym: Ga

gamma radiation

definition: an electromagnetic property that measures the emission of gamma radiation by a material.

broader term: electromagnetic property

gas age

definition: the age, either directly measured or inferred, of the midpoint of a gas sample within an ice core.

broader term: age

gas age at sample end

definition: the age, either directly measured or inferred, at the youngest end of a gas sample within an ice core.

broader term: age

gas age at sample start

definition: The age, either directly measured or inferred, at the oldest end of a gas sample within an ice core.

broader term: age

gastropod

definition: an identifiable organism including the slugs and snails that belongs to the kingdom Animalia, phylum Mollusca, class Gastropoda (TSN: 69459).

broader term: organism

narrower term: gastropod index

narrower term: identified gastropod

gastropod index

definition: a measurement of gastropods, such as a ratio or count, that is derived from a series of observations and that is used as an indicator or measure.

broader term: gastropod

narrower term: total gastropods

gaultite

definition: a silicate mineral with the formula $\text{Na}_4\text{Zn}_2\text{Si}_7\text{O}_{18}\cdot 5\text{H}_2\text{O}$ (Dana 8th ed.: 77.2.6.1; Nickel-Strunz 10th (pending) ed.: 9.GF.20; <https://www.mindat.org/min-1661.html>).
broader term: silicate mineral

geocronite

definition: a sulfide mineral with the formula $\text{Pb}_{14}(\text{Sb},\text{As})_6\text{S}_{23}$ (Dana 8th ed.: 3.3.1.2; Nickel-Strunz 10th (pending) ed.: 2.JB.30a; <https://www.mindat.org/min-1674.html>).
broader term: sulfide mineral

geological material

definition: minerals, rocks, and unconsolidated materials such as soils and sediments.
broader term: what
narrower term: bulk geological material
narrower term: identified mineral

geopotential height

definition: a vertical coordinate referenced to Earth's mean sea level that contains an adjustment for the variation of gravity with latitude and elevation (CF: `geopotential_height`).
broader term: circulation variable

germanium

definition: a chemical element with atomic number 32.
broader term: element or single-element molecule
synonym: Ge

germanium/silicon

definition: the elemental ratio of germanium to silicon.
broader term: element or compound ratio
synonym: Ge/Si

glauconite

definition: a sulfate mineral with the formula $\text{Na}_2\text{Ca}(\text{SO}_4)_2$ (Dana 8th ed.:28.4.2.1; Nickel-Strunz 10th (pending) ed.: 7.AD.25; <https://www.mindat.org/min-1706.html>).
broader term: sulfate mineral

glauconite

definition: a mica group mineral with the formula $(\text{K},\text{Na})(\text{Mg},\text{Fe}^{2+},\text{Fe}^{3+})(\text{Fe}^{3+},\text{Al})(\text{Si},\text{Al})_4\text{O}_{10}(\text{OH})_2$ (Dana 8th ed.: 71.2.2a.5; Strunz 8th ed.: 8/H.13-40; <https://www.mindat.org/min-1710.html>).
broader term: mica group

Globigerina bulloides

definition: a particular species of the genus *Globigerina* (TSN: 45797; urn:lsid:marinespecies.org:taxname:113434).
broader term: identified foraminifer

Globigerinella siphonifera

definition: a particular species of the genus *Globigerinella* (urn:lsid:marinespecies.org:taxname:113440).
broader term: identified foraminifer

Globigerinoides ruber

definition: a particular species of the genus *Globigerinoides* (TSN: 180980; urn:lsid:marinespecies.org:taxname:113444).

broader term: identified foraminifer
narrower term: Globigerinoides ruber pink
narrower term: Globigerinoides ruber sensu lato
narrower term: Globigerinoides ruber sensu stricto
narrower term: Globigerinoides ruber white

Globigerinoides ruber pink

definition: a chromotype of *Globigerinoides ruber* that produces pink-pigmented tests.
broader term: *Globigerinoides ruber*

Globigerinoides ruber sensu lato

definition: a morphotype of *Globigerinoides ruber* that forms compact, non-spherical chambers.
broader term: *Globigerinoides ruber*

Globigerinoides ruber sensu stricto

definition: a morphotype of *Globigerinoides ruber* that is symmetrical with spherical chambers.
broader term: *Globigerinoides ruber*

Globigerinoides ruber white

definition: a chromotype of *Globigerinoides ruber* that produces unpigmented, or white, tests.
broader term: *Globigerinoides ruber*

Globorotalia crassaformis

definition: a particular species of the genus *Globorotalia* (urn:lsid:marinespecies.org:taxname:418113).
broader term: identified foraminifer

Globorotalia hirsuta

definition: a particular species of the genus *Globorotalia* (urn:lsid:marinespecies.org:taxname:113448).
broader term: identified foraminifer

Globorotalia inflata

definition: a particular species of the genus *Globorotalia* (urn:lsid:marinespecies.org:taxname:906779).
broader term: identified foraminifer

Globorotalia menardii

definition: a particular species of the genus *Globorotalia* (urn:lsid:marinespecies.org:taxname:113450).
broader term: identified foraminifer

Globorotalia truncatulinoides

definition: a particular species of the genus *Globorotalia* (urn:lsid:marinespecies.org:taxname:113453).
broader term: identified foraminifer
narrower term: *Globorotalia truncatulinoides* encrusted
narrower term: *Globorotalia truncatulinoides* non-encrusted

Globorotalia truncatulinoides encrusted

definition: the encrusted variant of *Globorotalia truncatulinoides*.
broader term: *Globorotalia truncatulinoides*

Globorotalia truncatulinoides non-encrusted

definition: the non-encrusted variant of *Globorotalia truncatulinoides*.
broader term: *Globorotalia truncatulinoides*

Globorotalia tumida

definition: a particular species of the genus Globorotalia (TSN: 45788; urn:lsid:marinespecies.org:taxname:418114).
broader term: identified foraminifer

glutamic acid and glutamine

definition: amino acids with the formulas C₅H₉NO₄ or C₅H₁₀N₂O₃, that are often measured together because they easily convert from one to the other (CHEBI: 18237; CHEBI: 28300).
broader term: amino acid

glycerol dialkyl glycerol tetraether

definition: an organic hydroxy compound that is a membrane lipid and that contains between 0 and 4 cyclopentane moieties, with an increasing number of cyclopentane moieties related to the temperature of formation.
broader term: organic hydroxy compound
synonym: GDGT
narrower term: branched glycerol dialkyl glycerol tetraether
narrower term: isoprenoid glycerol dialkyl glycerol tetraether

glycine

definition: an amino acid with the formula C₂H₅NO₂ (CHEBI: 15428).
broader term: amino acid

goethite

definition: an oxide or hydroxide mineral with the formula alpha-Fe₃+O(OH) (Dana 8th ed.: 6.1.1.2 ; Nickel-Strunz 10th (pending) ed.: 4.00.; <https://www.mindat.org/min-1719.html>).
broader term: oxide and hydroxide minerals

gold

definition: a chemical element with atomic number 79.
broader term: element or single-element molecule
synonym: Au

grain harvest date

definition: a phenological event that is the timing of a grain harvest.
broader term: phenological event

grain size

definition: the diameter of individual grains of a material such as sediment, dust, or ice.
broader term: diameter
narrower term: grain size class
narrower term: grain size parameter

grain size beta

definition: a measure of the slope of the best-fit line to the grain size distribution. Lower beta values reflect a coarser grain size distribution and higher beta values reflect a finer grain size distribution.
broader term: grain size parameter

grain size class

definition: the abundance or concentration of particles of specified grain size classes.
broader term: grain size
narrower term: clay

narrower term: granule
narrower term: gravel
narrower term: sand
narrower term: silt

grain size kurtosis

definition: a measure of the sharpness of the peak of the grain size frequency distribution. The kurtosis of a univariate normal distribution is 3; values less than this indicate a flatter distribution and values greater than this indicate a more peaked distribution.
broader term: grain size parameter

grain size mean

definition: the average grain size in a sample.
broader term: grain size parameter
narrower term: sortable silt mean grain size

grain size median

definition: the median (50th percentile) grain size in a sample.
broader term: grain size parameter

grain size mode

definition: the most commonly occurring grain size in a sample.
broader term: grain size parameter

grain size parameter

definition: a parameter that describes a specific aspect of a grain size frequency distribution.
broader term: grain size
narrower term: grain size beta
narrower term: grain size kurtosis
narrower term: grain size mean
narrower term: grain size median
narrower term: grain size mode
narrower term: grain size skewness
narrower term: grain size standard deviation

grain size skewness

definition: a measure of the asymmetry of the grain size frequency distribution around the mean value. Negative values indicate that the left tail of the distribution is longer than the right tail (i.e., the mass of the distribution is concentrated on the right), and vice versa for positive values.
broader term: grain size parameter

grain size standard deviation

definition: the standard deviation of a grain size frequency distribution. This is a commonly-used measure of the degree of sorting (i.e., high values indicate poorer sorting).
broader term: grain size parameter

granule

definition: the abundance or concentration of particles with a diameter of 2 to 4 millimeters.
broader term: grain size class

grape harvest date

definition: a phenological event that is the timing of the grape harvest.

broader term: phenological event

gravel

definition: the abundance or concentration of particles with a diameter greater than 2 millimeters.

broader term: grain size class

grayscale

definition: reflectance that is quantified only according to intensity, or the amount of light, with low values indicating black and high values indicating white.

broader term: reflectance

synonym: greyscale

grazing

definition: an ecosystem process variable that quantifies the consumption of biomass, for example the consumption of phytoplankton by zooplankton, and the related transfer of nutrients.

broader term: ecosystem process

green intensity

definition: a component of the RGB color system that measures the level of green light required to produce the color of a substance.

broader term: RGB color system

greenhouse gas forcing

definition: a forcing variable that quantifies the radiative forcing, often expressed in watt per square meter, of atmospheric greenhouse gases.

broader term: forcing variable

growing degree days

definition: a temperature index that integrates warmth above a base temperature (usually 10 degrees Celsius) through time.

broader term: temperature index

growth rate

definition: a rate of linear growth of a deposit (e.g., speleothem, mollusk shell), sometimes calculated from the width of an annual growth band. The term extension rate should be used for corals.

broader term: formation rate

gypsum

definition: a sulfate mineral with the formula $\text{CaSO}_4 \cdot 2(\text{H}_2\text{O})$ (Dana 8th ed.: 29.6.3.1; Nickel-Strunz 10th (pending) ed.: 7.CD.40; <https://www.mindat.org/min-1784.html>).

broader term: sulfate mineral

Hadley circulation index

definition: a circulation variable that measures some aspect of the global-scale tropical atmospheric circulation known as the Hadley circulation, such as its strength, width, or northern or southern positional limits.

broader term: circulation variable

hafnium

definition: a chemical element with atomic number 72.

broader term: element or single-element molecule

synonym: Hf

halide mineral

definition: an identified mineral that is characterized by a halogen such as fluorine, chlorine, iodine, or bromine as the anion (Dictionary of Geological Terms).

broader term: identified mineral

narrower term: halite

halite

definition: a halide mineral with the formula NaCl (Dana 8th ed.: 9.1.1.1; Nickel-Strunz 10th (pending) ed.: 3.AA.20; <https://www.mindat.org/min-1804.html>).

broader term: halide mineral

synonym: NaCl

helium

definition: a chemical element with atomic number 2.

broader term: element or single-element molecule

synonym: He

hematite group

definition: an oxide and hydroxide mineral with the general formula X_2O_3 , where $X = Al, Fe, V, Cr, Ti$ (<https://www.mindat.org/min-29296.html>).

broader term: oxide and hydroxide minerals

narrower term: karelianite

highly-branched isoprenoid alkene

definition: an alkene that is highly-branched and composed of a number of isoprene (C_5H_8) units and that is produced by a relatively small number of marine and freshwater diatoms belonging to the *Haslea*, *Navicula*, *Pleurosigma*, and *Rhizosolenia* genera (Belt et al. 2013).

broader term: alkene

synonym: HBI

narrower term: ice proxy with 25 carbon atoms

holmium

definition: a chemical element with atomic number 67.

broader term: element or single-element molecule

synonym: Ho

horizontal displacement

definition: a formation property that quantifies the amount of horizontal movement of a deposit (e.g., ice) since its original emplacement.

broader term: formation property

hue

definition: a dimension of the Munsell color system that represents the differentiation between red, yellow, green, blue and purple.

broader term: Munsell color system

humification index

definition: a measure of the extent to which a peat sample has undergone decomposition and humic acids have been produced.

broader term: peat

hydrocarbon

definition: an organic compound that consists of carbon and hydrogen only (CHEBI: 24632).

broader term: organic compound

narrower term: alkane

narrower term: alkene

hydroclimate index

definition: a hydroclimate variable that measures a quantity on a relative scale.

broader term: hydroclimatic variable

narrower term: moisture index

narrower term: Palmer Drought Severity Index

narrower term: Palmer Hydrologic Drought Index

narrower term: Palmer Modified Drought Index

narrower term: standardized precipitation evapotranspiration index

narrower term: standardized precipitation index

hydroclimate quantity

definition: a variable that quantifies some aspect of the concentration or distribution of water.

broader term: hydroclimatic variable

narrower term: cloud condensed water content

narrower term: precipitable water

narrower term: soil moisture

hydroclimate rate

definition: a hydroclimate variable that measures a quantity per time.

broader term: hydroclimatic variable

narrower term: evaporation

narrower term: evapotranspiration

narrower term: precipitation

narrower term: precipitation minus evaporation

narrower term: precipitation minus evapotranspiration

narrower term: precipitation minus potential evapotranspiration

narrower term: runoff

narrower term: streamflow

narrower term: transpiration

narrower term: virtual salt flux

hydroclimate ratio

definition: a hydroclimate variable that measures a hydroclimatic quantity or rate relative to another.

broader term: hydroclimatic variable

narrower term: actual/potential evapotranspiration

narrower term: cloud cover

narrower term: cloud ice mixing ratio

narrower term: cloud liquid water mixing ratio

narrower term: relative humidity

narrower term: runoff coefficient

narrower term: specific humidity

hydroclimatic variable

definition: an earth system variable that relates to the parts of climate influenced by water.

broader term: earth system variable

narrower term: hydroclimate index

narrower term: hydroclimate quantity
narrower term: hydroclimate rate
narrower term: hydroclimate ratio

hydrogen

definition: a chemical element with atomic number 1.
broader term: element or single-element molecule
synonym: H
narrower term: hydrogen ions

hydrogen carbonate

definition: an inorganic compound that has the chemical formula HCO_3^- (CHEBI: 17544).
broader term: inorganic compound
synonym: bicarbonate
synonym: HCO_3^-

hydrogen index

definition: an organic compound index that measures the amount of hydrogen relative to the amount of organic carbon present in a sample.
broader term: organic compound index

hydrogen ions

definition: a hydrogen atom that has been separated from its accompanying electron and that has a unit positive electric charge.
broader term: hydrogen
synonym: H^+

hydrogen peroxide

definition: an inorganic compound that has the chemical formula H_2O_2 (CHEBI: 16240).
broader term: inorganic compound
synonym: H_2O_2

hydrographic variable

definition: an earth system variable that quantifies the distribution of water in the ocean, land surface, or land subsurface.
broader term: earth system variable
narrower term: lake area
narrower term: lake level
narrower term: ocean area
narrower term: paleodrainage direction
narrower term: sea level
narrower term: water table depth
narrower term: wetland area

hypothesis testing variable

definition: a statistical variable that is calculated for hypothesis testing.
broader term: statistical variable
narrower term: p-value
narrower term: t-statistic

ice age

definition: the age, either directly measured or inferred, of the midpoint of an ice sample within an ice core.

broader term: age

ice age at sample end

definition: the age, either directly measured or inferred, at the youngest end of an ice sample within an ice core.

broader term: age

ice age at sample start

definition: the age, either directly measured or inferred, at the oldest end of an ice sample within an ice core.

broader term: age

ice break-up date

definition: a cryospheric variable that is the timing of the onset of ice break-up on a body of water such as a river, lake, or ocean.

broader term: cryospheric quantity

ice proxy with 25 carbon atoms

definition: a highly-branched isoprenoid alkene that contains 25 carbon atoms and that is produced selectively by sea ice diatoms (Belt et al. 2013).

broader term: highly-branched isoprenoid alkene

synonym: IP25

ice rafted debris

definition: mineral matter that was transported over a body of water on ice.

broader term: mineral matter

ice sheet area

definition: the horizontal extent of a glacier, ice-cap or ice-sheet resting on bedrock or an ice-shelf (CF: land_ice_area_fraction).

broader term: cryospheric quantity

ice sheet calving

definition: the rate at which ice is lost from a glacier, ice-cap, or ice-sheet through calving into the ocean or other body of water (CF: land_ice_calving_rate, land_ice_lwe_calving_rate).

broader term: cryospheric process

ice sheet elevation

definition: the elevation of the surface of a glacier, ice-cap or ice-sheet resting on bedrock or an ice-shelf, measured relative to some datum.

broader term: cryospheric quantity

ice sheet melt

definition: the rate of loss of ice mass from a glacier, ice-cap, ice-sheet, or ice-shelf through phase transformation to liquid water

(CF: land_ice_surface_melt_flux, land_ice_basal_melt_rate, land_ice_lwe_basal_melt_rate).

broader term: cryospheric process

ice sheet thickness

definition: the vertical extent of a glacier, ice-cap or ice-sheet resting on bedrock or an ice-shelf (CF: land_ice_thickness).
broader term: cryospheric quantity

ice sheet velocity

definition: the magnitude of a vector indicating ice sheet motion at some level. Depth within the ice sheet should be described in the "Additional Information" field.
broader term: circulation variable
narrower term: ice sheet x velocity
narrower term: ice sheet y velocity
narrower term: upward ice sheet velocity

ice sheet volume

definition: the volume of ice in a glacier, ice-cap or ice-sheet resting on bedrock or an ice-shelf.
broader term: cryospheric quantity

ice sheet x velocity

definition: the magnitude of a vector component along the ice sheet grid x-axis, positive with increasing x, and generally in an eastward direction. Depth within the ice sheet should be described in the "Additional Information" field. (CF: land_ice_x_velocity, eastward_land_ice_velocity, land_ice_basal_x_velocity, land_ice_surface_x_velocity).
broader term: ice sheet velocity

ice sheet y velocity

definition: the magnitude of a vector component along the ice sheet grid y-axis, positive with increasing y, and generally in a northward direction. Depth within the ice sheet should be described in the "Additional Information" field (CF: land_ice_y_velocity, northward_land_ice_velocity, land_ice_basal_y_velocity, land_ice_surface_y_velocity).
broader term: ice sheet velocity

ice temperature

definition: the mean temperature at or below the surface of an ice sheet or glacier. Depth under the surface should be described in the "Additional Information" field (CF: land_ice_temperature).
broader term: temperature

identified beetle

definition: an organism belonging to the Order Coleoptera that has been identified taxonomically, with any information such as genus or species listed in the "Additional Information" field.
broader term: identified insect

identified brachiopod

definition: a brachiopod that has been identified taxonomically, with any information such as genus or species listed in the "Additional Information" field.
broader term: brachiopod

identified chlorophyte

definition: a chlorophyte that has been identified taxonomically, with any information such as genus or species listed in the "Additional Information" field.
broader term: chlorophyte

identified cladoceran

definition: a cladoceran that has been identified taxonomically, with any information such as genus or species listed in the "Additional Information" field.
broader term: cladoceran

identified coccolithophore

definition: a coccolithophore that has been identified taxonomically, with any information such as genus or species listed in the "Additional Information" field.
broader term: coccolithophore

identified diatom

definition: a diatom that has been identified taxonomically, with any information such as genus or species listed in the "Additional Information" field.
broader term: diatom

identified dinoflagellate

definition: a dinoflagellate that has been identified taxonomically, with any information such as genus or species listed in the "Additional Information" field.
broader term: dinoflagellate

identified echinoid

definition: an echinoid that has been identified taxonomically, with any information such as genus or species listed in the "Additional Information" field.
broader term: echinoid

identified fish

definition: a fish that has been identified taxonomically, with any information such as genus or species listed in the "Additional Information" field.
broader term: fish

identified foraminifer

definition: a foraminifer that has been identified taxonomically. Some commonly-occurring species are listed as narrower terms. Any other species should use the "identified foraminifer" term with any information such as genus or species listed in the "Additional Information" field.

broader term: foraminifer

narrower term: *Cibicides kullenbergi*

narrower term: *Cibicidoides mundula*

narrower term: *Cibicidoides pachyderma*

narrower term: *Cibicidoides wuellerstorfi*

narrower term: *Globigerina bulloides*

narrower term: *Globigerinella siphonifera*

narrower term: *Globigerinoides ruber*

narrower term: *Globorotalia crassaformis*

narrower term: *Globorotalia hirsuta*

narrower term: *Globorotalia inflata*

narrower term: *Globorotalia menardii*

narrower term: *Globorotalia truncatulinoides*

narrower term: *Globorotalia tumida*

narrower term: *Melonis barleeanus*

narrower term: *Neogloboquadrina dutertrei*

narrower term: *Neogloboquadrina incompta*

narrower term: *Neogloboquadrina pachyderma*

narrower term: *Nuttallides umbonifera*

narrower term: *Orbulina universa*
narrower term: *Oridorsalis umbonatus*
narrower term: *Pulleniatina obliquiloculata*
narrower term: *Trilobatus sacculifer*
narrower term: *Uvigerina peregrina*

identified gastropod

definition: a gastropod that has been identified taxonomically, with any information such as genus or species listed in the "Additional Information" field.
broader term: gastropod

identified insect

definition: an insect that has been identified taxonomically, with any information such as genus or species listed in the "Additional Information" field.
broader term: insect
narrower term: identified beetle
narrower term: identified midge

identified midge

definition: an organism that belongs to one of several families in the Order Diptera and that has been identified taxonomically, with any information such as genus or species listed in the "Additional Information" field.
broader term: identified insect

identified mineral

definition: a geological material that has been identified based on composition and crystal structure as a specific mineral or as belonging to a certain mineral class.
broader term: geological material
narrower term: carbonate
narrower term: halide mineral
narrower term: mineral index
narrower term: organic compound mineral
narrower term: oxide and hydroxide minerals
narrower term: phosphate mineral
narrower term: silicate mineral
narrower term: sulfate mineral
narrower term: sulfide mineral

identified ostracod

definition: an ostracod that has been identified taxonomically, with any information such as genus or species listed in the "Additional Information" field.
broader term: ostracod

identified radiolarian

definition: a radiolarian that has been identified taxonomically, with any information such as genus or species listed in the "Additional Information" field.
broader term: radiolarian

identified silicoflagellate

definition: a silicoflagellate that has been identified taxonomically, with any information such as genus or species listed in the "Additional Information" field.
broader term: silicoflagellate

identified sponge

definition: a sponge that has been identified taxonomically, with any information such as genus or species listed in the "Additional Information" field.

broader term: sponge

identified testate amoeba

definition: a testate amoeba that has been identified taxonomically, with any information such as genus or species listed in the "Additional Information" field.

broader term: testate amoeba

illite

definition: a mica group mineral with the formula: $K_{0.65}Al_2O_3[Al_{0.65}Si_{3.35}O_{10}](OH)_2$ (Dana 8th ed.: 71.2.2d.2; <https://www.mindat.org/min-2011.html>).

broader term: mica group

impedance

definition: an electrical property that quantifies the measure of opposition that a circuit presents to a current from an applied voltage.

broader term: electrical property

inclination

definition: the angle between the vector between an observer and a point of interest and the vector that is created by projecting this into the reference plane orthogonal to the zenith.

broader term: angle

incoherent scattering

definition: a measure of scattering in x-ray fluorescence analysis, that together with coherent scattering can be used as a proxy for the amount of organic matter in a sample.

broader term: scattering

incoherent narrower term: coherent scattering

definition: a ratio of scattering in x-ray fluorescence analysis, that can be used as a proxy for the amount of organic matter in a sample.

broader term: scattering

initial magnetization slope

definition: the slope of the initial magnetization curve of a hysteresis loop, which is created during the magnetization of a material following complete demagnetization, and is the ratio of the magnetization of the material to the magnetic field applied.

broader term: magnetic ratios

inorganic carbon

definition: carbon that is derived from an inorganic source.

broader term: carbon

synonym: inorganic C

narrower term: dissolved inorganic carbon

inorganic compound

definition: A compound that either does not contain carbon, is of a non-biologic origin, cannot be found or incorporated into a living organism, or is one of a small class of simple molecules containing carbon (e.g., carbon dioxide, carbon monoxide).

broader term: compound
narrower term: aluminum oxide
narrower term: ammonium
narrower term: barium oxide
narrower term: borate ion
narrower term: calcium dioxide
narrower term: calcium oxide
narrower term: carbon dioxide
narrower term: carbon monoxide
narrower term: carbonate ion
narrower term: hydrogen carbonate
narrower term: hydrogen peroxide
narrower term: inorganic compound index
narrower term: iron oxide
narrower term: magnesium oxide
narrower term: manganese oxide
narrower term: nitrate
narrower term: nitrite
narrower term: nitrous oxide
narrower term: phosphate
narrower term: phosphorus oxide
narrower term: potassium oxide
narrower term: silicon dioxide
narrower term: sodium oxide
narrower term: strontium oxide
narrower term: sulfate
narrower term: sulfuric acid
narrower term: titanium oxide
narrower term: zirconium dioxide

inorganic compound index

definition: a measurement of specific inorganic compounds, such as a ratio or count, that is derived from a series of observations and that is used as an indicator or measure of environmental conditions.

broader term: inorganic compound

insect

definition: an identifiable organism that belongs to the kingdom Animalia, phylum Arthropoda, class Insecta (TSN: 99208).

broader term: organism

narrower term: identified insect

narrower term: insect index

insect index

definition: a measurement of insects, such as a ratio or count, that is derived from a series of observations and that is used as an indicator or measure.

broader term: insect

narrower term: midge index

insolation

definition: a measurement of incoming solar radiation at the top of the atmosphere. This quantity varies latitudinally and seasonally (CF: toa_incoming_shortwave_flux).

broader term: forcing variable

synonym: top-of-atmosphere downwelling shortwave radiation

Interdecadal Pacific Oscillation Index

definition: a circulation index that is calculated from modern observations as the second principal component of low-frequency filtered or smoothed sea surface temperatures generally between 60 degrees north and 40 degrees south latitude, either over the Pacific Basin or globally.

broader term: mode-of-variability variable

synonym: IPO

International Geo Sample Number

definition: a sample identification that is an alphanumeric code generated by the System for Earth Science Registration for a physical sample.

broader term: sample identification

Intertropical Convergence Zone index

definition: a circulation variable that measures some aspect of the belt of low pressure where trade winds converge, such as its latitudinal position.

broader term: circulation variable

synonym: ITCZ

intrinsic water use efficiency

definition: an ecosystem variable that quantifies the ratio of the rate of carbon assimilation (photosynthesis) to the rate of transpiration in plants.

broader term: ecosystem index

ion balance

definition: a solution concentration that is the sum of the concentration of cations minus the concentration of anions.

broader term: solution property

iridium

definition: a chemical element with atomic number 77.

broader term: element or single-element molecule

synonym: Ir

iron

definition: a chemical element with atomic number 26.

broader term: element or single-element molecule

synonym: Fe

narrower term: dissolved iron

iron oxide

definition: an inorganic compound that is any of the oxides of iron, containing iron and oxygen atoms.

broader term: inorganic compound

synonym: FeO

narrower term: iron(III) oxide

iron(III) oxide

definition: an inorganic compound that has the chemical formula Fe₂O₃ (CHEBI: 50819).

broader term: iron oxide

synonym: Fe₂O₃

synonym: ferric oxide

iron/aluminum

definition: the elemental ratio of iron to aluminum.

broader term: element or compound ratio

synonym: Fe/Al

iron/calcium

definition: the elemental ratio of iron to calcium.

broader term: element or compound ratio

synonym: Fe/Ca

iron/manganese

definition: the elemental ratio of iron to manganese.

broader term: element or compound ratio

synonym: Fe/Mn

iron/potassium

definition: the elemental ratio of iron to potassium.

broader term: element or compound ratio

synonym: Fe/K

iron/titanium

definition: the elemental ratio of iron to titanium.

broader term: element or compound ratio

synonym: Fe/Ti

isoleucine

definition: an amino acid with the formula C₆H₁₃NO₂ and a different chemical structure than leucine (CHEBI: 24898).

broader term: amino acid

isoprenoid glycerol dialkyl glycerol tetraether

definition: a glycerol dialkyl glycerol tetraether that has isoprenoid chains and that is of archaeal origin (Dirghangi et al. 2013)

broader term: glycerol dialkyl glycerol tetraether

synonym: isoprenoid GDGT

isothermal remanent magnetization

definition: remanent magnetism that is acquired without the aid of changes in temperature, generally from the application and subsequent removal of an applied direct current field (Encyclopedia of Geomagnetism and Paleomagnetism).

broader term: remanent magnetization

synonym: IRM

narrower term: saturation isothermal remanent magnetization

isotope

definition: a measure of chemical composition that relates to variants of a given element that differ in neutron number.

broader term: chemical composition

narrower term: isotope fractionation factor

narrower term: isotope ratio

narrower term: single isotope concentration

isotope fractionation factor

definition: a measurement of the partitioning of isotopes that occurs during one or more physical or biological processes such as a chemical reaction or phase change.

broader term: isotope

narrower term: delta ¹³C photosynthetic fractionation factor

narrower term: delta ²H apparent fractionation factor

isotope ratio

definition: the ratio of one isotope compared to another isotope.

broader term: isotope

narrower term: ¹³²Xe/³⁶Ar

narrower term: ¹⁴³Nd/¹⁴⁴Nd

narrower term: ¹⁴⁷Sm/¹⁴⁴Nd

narrower term: ¹⁴CO/(¹⁴CO+¹⁴CO₂)

narrower term: ¹⁸⁷Os/¹⁸⁸Os

narrower term: ¹⁸⁷Re/¹⁸⁸Os

narrower term: ²⁰⁶Pb/²⁰⁴Pb

narrower term: ²⁰⁶Pb/²⁰⁷Pb

narrower term: ²⁰⁷Pb/²⁰⁴Pb

narrower term: ²⁰⁷Pb/²⁰⁶Pb

narrower term: ²⁰⁸Pb/²⁰⁴Pb

narrower term: ²⁰⁸Pb/²⁰⁶Pb

narrower term: ²⁰⁸Pb/²⁰⁷Pb

narrower term: ²³¹Pa/²³⁰Th

narrower term: ²³⁸U/²³²Th

narrower term: ³He/⁴He

narrower term: ⁸⁴Kr/³⁶Ar

narrower term: ⁸⁷Rb/⁸⁶Sr

narrower term: ⁸⁷Sr/⁸⁶Sr

narrower term: delta ¹¹B

narrower term: delta ¹³C

narrower term: Delta ¹⁴C

narrower term: delta ¹⁵N

narrower term: delta ¹⁷O

narrower term: delta ¹⁸O

narrower term: delta ²⁹Si

narrower term: delta ²H

narrower term: delta ³⁰Si

narrower term: delta ³³S

narrower term: delta ³⁴S

narrower term: delta ³⁶S

narrower term: delta ⁴⁰Ar

narrower term: delta ⁸⁷Sr

jet stream position

definition: the position, often expressed as the mean latitude, of a fast-flowing atmospheric current.

broader term: circulation variable

kaersutite

definition: an amphibole with the formula NaCa₂(Mg₃Ti₄+Al)(Si₆Al₂)O₂₂O₂ (Dana 8th ed.: 66.1.3a.18; Nickel-Strunz 10th (pending) ed.: 9.DE.15; <https://www.mindat.org/min-2129.html>).

broader term: amphibole

kafhydrocyanite

definition: an organic compound mineral with the formula $K_4[Fe(CN)_6] \cdot H_2O$ (Dana 8th ed.: 50.2.5.1; Nickel-Strunz 10th (pending) ed.: 10.AD.10; <https://www.mindat.org/min-2130.html>).

broader term: organic compound mineral

kaolinite

definition: a silicate mineral with the formula: $Al_2(Si_2O_5)(OH)_4$ (Dana 8th ed.: 71.1.1.2; Nickel-Strunz 10th (pending) ed.: 9.ED.05; <https://www.mindat.org/min-2156.html>).

broader term: silicate mineral

narrower term: dickite

karelianite

definition: a hematite group mineral with the formula: V_2O_3 (Dana 8th ed.: 4.3.1.4; Nickel-Strunz 10th (pending) ed.: 4.CB.05; <https://www.mindat.org/min-2158.html>).

broader term: hematite group

ketone

definition: an organooxygen compound that has the general formula $RC(=O)R'$ (CHEBI: 17087).

broader term: organooxygen compound

narrower term: alkenone

kinetic energy dissipation

definition: a measure of the dissipation of kinetic energy of a fluid within the earth system.

broader term: circulation variable

krypton

definition: a chemical element with atomic number 36.

broader term: element or single-element molecule

synonym: Kr

La Nina event

definition: an index of the El Nino Southern Oscillation that quantifies the occurrence of anomalously cold sea surface temperatures in the eastern tropical Pacific.

broader term: El Nino Southern Oscillation Index

labradorite

definition: a plagioclase feldspar mineral that has the general formula $(Ca,Na)Al(Si,Al)Si_2O_8$ with 30-50% Na and 50-70% Ca.

broader term: plagioclase feldspar series

lake area

definition: a hydrographic variable that quantifies the surface area of one or multiple lakes.

broader term: hydrographic variable

lake level

definition: a hydrographic variable that quantifies the height of the lake water surface relative to some datum.

broader term: hydrographic variable

lake surface temperature

definition: the mean temperature of a lake surface.
broader term: lake water temperature

lake water temperature

definition: the mean temperature at or below the surface of a lake. Depth under the surface should be described in the "Additional Information" field.
broader term: temperature
narrower term: lake surface temperature

land surface temperature

definition: the mean temperature of the land surface.
broader term: land temperature

land temperature

definition: the mean temperature at or below the land surface. Depth under the surface should be described in the "Additional Information" field.
broader term: temperature
narrower term: land surface temperature

lanthanum

definition: a chemical element with atomic number 57.
broader term: element or single-element molecule
synonym: La

lanthanum/cerium

definition: the elemental ratio of lanthanum to cerium.
broader term: element or compound ratio
synonym: La/Ce

lanthanum/thorium

definition: the elemental ratio of lanthanum to thorium.
broader term: element or compound ratio
synonym: La/Th

large-scale precipitation

definition: precipitation (rain+snow) that is grid-cell in scale and that originates from the model cloud scheme (CF: stratiform_precipitation_amount, stratiform_precipitation_flux, lwe_stratiform_precipitation_rate, lwe_thickness_of_stratiform_precipitation_amount).
broader term: precipitation

large-scale snowfall

definition: snowfall that is grid-cell in scale and that originates from the model cloud scheme (CF: stratiform_snowfall_amount, stratiform_snowfall_flux, lwe_stratiform_snowfall_rate, lwe_thickness_of_stratiform_snowfall_amount, thickness_of_stratiform_snowfall_amount).
broader term: snowfall

latent heat flux

definition: a turbulent heat flux that is the exchange of heat between the surface and the air on account of evaporation including sublimation
(CF: surface_downward_latent_heat_flux, surface_upward_latent_heat_flux).
broader term: turbulent flux variable

latewood

definition: wood that formed late in the growing season and that tends to consist of small and thick-walled cells.

broader term: wood

latewood density

definition: the density of xylem cells in wood that formed near the end of the growing season and that tend to be small and thick-walled.

broader term: density

latewood width

definition: the width of the segment of an annual radial growth increment in a tree that formed late in the growing season and that tends to consist of small and thick-walled cells.

broader term: length

latitude

definition: sampling metadata that identifies the latitude at which a sample was collected or a reconstruction was generated.

broader term: sampling metadata

layer thickness

definition: a measure of raw, or true, ice layer thickness, i.e. uncorrected for compaction and flow.

broader term: length

lead

definition: a chemical element with atomic number 82.

broader term: element or single-element molecule

synonym: Pb

lead/barium

definition: the elemental ratio of lead to barium.

broader term: element or compound ratio

synonym: Pb/Ba

lead/calcium

definition: the elemental ratio of lead to calcium.

broader term: element or compound ratio

synonym: Pb/Ca

leaf area index

definition: an ecosystem index that characterizes plant canopies and that is calculated as the one-sided green leaf area per unit ground surface area (Wikipedia; CF: leaf_area_index).

broader term: ecosystem index

leakeite

definition: an amphibole with the formula $\text{NaNa}_2(\text{Mg}_2\text{Al}_2\text{Li})(\text{Si}_8\text{O}_{22})(\text{OH}_2)$ (<https://www.mindat.org/min-43504.html>).

broader term: amphibole

length

definition: a physical property that is the measurement of the extent of something from end to end.

broader term: physical property

narrower term: average cell wall thickness
narrower term: earlywood width
narrower term: latewood width
narrower term: layer thickness
narrower term: total ring width
narrower term: varve thickness

letovicite

definition: a sulfate mineral with the formula $(\text{NH}_4)_3\text{H}(\text{SO}_4)_2$ (Dana 8th ed.: 28.1.3.1; Nickel-Strunz 10th (pending) ed.: 7.AD.20; <https://www.mindat.org/min-2382.html>).
broader term: sulfate mineral

leucine

definition: an amino acid with the formula $\text{C}_6\text{H}_{13}\text{NO}_2$ (CHEBI: 25017).
broader term: amino acid

levoglucosan

definition: a carbohydrate with the formula $\text{C}_6\text{H}_{10}\text{O}_5$ and IUPAC stereodescriptor (1R,2S,3S,4R,5R) (CHEBI: 30997; PubChem: 2724705).
broader term: carbohydrate

lightness

definition: an axis of the CIELAB color system, with the darkest black at 0 and the brightest white at 100.
broader term: CIE $L^*a^*b^*$ color system
synonym: L^*

lignin

definition: an aromatic compound that is part of a class of complex organic polymers (CHEBI: 6457).
broader term: aromatic compound

lithium

definition: a chemical element with atomic number 3.
broader term: element or single-element molecule
synonym: Li

lithium/calcium

definition: the elemental ratio of lithium to calcium.
broader term: element or compound ratio
synonym: Li/Ca

lithium/magnesium

definition: the elemental ratio of lithium to magnesium.
broader term: element or compound ratio
synonym: Li/Mg

litter carbon

definition: the quantity of carbon contained in dead inorganic material in or above the soil (CF: litter_carbon_content, litter_carbon_flux).
broader term: ecosystem quantity

lock-in depth

definition: a formation property that quantifies the depth in a glacier or ice sheet at which atmospheric air is locked into bubbles within the ice.
broader term: formation property

long-chain alkyl diol

definition: an alcohol that consists of a long hydrocarbon chain and two hydroxy groups.
broader term: alcohol

longitude

definition: sampling metadata that describes the longitude at which a sample was collected or a reconstruction was generated.
broader term: sampling metadata

longwave cloud radiative effect

definition: the difference in longwave radiative flux at the top of the atmosphere resulting from the presence of clouds, that is the difference between the outgoing longwave flux assuming clear sky conditions and the outgoing longwave flux with clouds present (CF: toa_longwave_cloud_radiative_effect).
broader term: radiative flux variable

luminescence

definition: an electromagnetic property that measures the emission of light by a substance not resulting from heat.
broader term: electromagnetic property
narrower term: fluorescence

lutetium

definition: a chemical element with atomic number 71.
broader term: element or single-element molecule
synonym: Lu

lysine

definition: an amino acid with the formula C₆H₁₄N₂O₂ (CHEBI: 25094).
broader term: amino acid

maghemite

definition: an oxide or hydroxide mineral with the formula Fe₃+2O₃ (Dana 8th ed.: 4.3.7.1; Nickel-Strunz 10th (pending) ed.: 4.BB.15; <https://www.mindat.org/min-2533.html>).
broader term: oxide and hydroxide minerals

magnesium

definition: a chemical element with atomic number 12.
broader term: element or single-element molecule
synonym: Mg

magnesium oxide

definition: an inorganic compound that has the chemical formula MgO (CHEBI: 31794).
broader term: inorganic compound
synonym: MgO

magnesium/aluminum

definition: the elemental ratio of magnesium to aluminum.

broader term: element or compound ratio
synonym: Mg/Al

magnesium/calcium

definition: the elemental ratio of magnesium to calcium.
broader term: element or compound ratio
synonym: Mg/Ca

magnetic field properties

definition: a magnetic property that measures the direction and/or strength of a magnetic field.
broader term: magnetic property
narrower term: coercivity
narrower term: median destructive field

magnetic moments

definition: a magnetic property that measures the tendency of a material to interact with an external magnetic field.
broader term: magnetic property
narrower term: magnetic susceptibility
narrower term: remanent magnetization
narrower term: saturation magnetization

magnetic property

definition: properties relating to a material's magnetism.
broader term: what
narrower term: magnetic field properties
narrower term: magnetic moments
narrower term: magnetic ratios

magnetic ratios

definition: ratios of two magnetic properties, commonly used as indicators of past environmental conditions.
broader term: magnetic property
narrower term: anhysteretic remanent magnetization/isothermal remanent magnetization
narrower term: anhysteretic remanent magnetization/magnetic susceptibility
narrower term: anhysteretic remanent magnetization/saturation isothermal remanent magnetization
narrower term: coercivity of remanence/coercivity
narrower term: initial magnetization slope
narrower term: natural remanent magnetization/anhysteretic remanent magnetization
narrower term: natural remanent magnetization/isothermal remanent magnetization
narrower term: S-ratio
narrower term: saturation isothermal remanent magnetization/initial magnetization slope
narrower term: saturation isothermal remanent magnetization/magnetic susceptibility
narrower term: saturation isothermal remanent magnetization/saturation isothermal magnetization
narrower term: saturation remanent magnetization/saturation magnetization

magnetic susceptibility

definition: the degree to which a material can be magnetized in an external magnetic field.
broader term: magnetic moments
synonym: chi
synonym: K
synonym: MS

narrower term: mass magnetic susceptibility
narrower term: volume magnetic susceptibility

magnetite

definition: an oxide or hydroxide mineral with the formula: $\text{Fe}_2+\text{Fe}_3+2\text{O}_4$ (Dana 8th ed.: 7.2.2.3; Nickel-Strunz 10th (pending) ed.: 4.BB.05; <https://www.mindat.org/min-2538.html>).

broader term: oxide and hydroxide minerals

manganese

definition: a chemical element with atomic number 25.

broader term: element or single-element molecule

synonym: Mn

manganese oxide

definition: an inorganic compound that is any of the oxides of manganese, containing oxygen and manganese atoms.

broader term: inorganic compound

synonym: MnO

manganese/aluminum

definition: the elemental ratio of manganese to aluminum.

broader term: element or compound ratio

synonym: Mn/Al

manganese/calcium

definition: the elemental ratio of manganese to calcium.

broader term: element or compound ratio

synonym: Mn/Ca

manganese/iron

definition: the elemental ratio of manganese to iron.

broader term: element or compound ratio

synonym: Mn/Fe

manganese/titanium

definition: the elemental ratio of manganese to titanium.

broader term: element or compound ratio

synonym: Mn/Ti

mannosan

definition: a carbohydrate with the formula $\text{C}_6\text{H}_{10}\text{O}_5$ and IUPAC stereodescriptor (1R,2S,3S,4S,5R) (PubChem: 10374739).

broader term: carbohydrate

Margalef diversity index

definition: a diversity index that measures species richness (biodiversity) as: $(S-1)/\ln N$ where S is the number of species observed and N is the total number of individuals in the sample.

broader term: diversity index

mass

definition: a physical property that is the amount of matter in an object and that is generally measured using a balance scale.

broader term: physical property
narrower term: basal area mass increment

mass magnetic susceptibility

definition: the magnetic susceptibility of a material per unit mass. This quantity has units of cubic meter per kilogram in SI units and cubic centimeter per gram in CGS units. It is equal to the volume magnetic susceptibility divided by the density of the material.
broader term: magnetic susceptibility

maximum air temperature

definition: the maximum temperature of air at a level of the atmosphere that should be specified in the "Additional Information" field.
broader term: maximum temperature

maximum angular deviation

definition: a measure of the likely directional error affecting the recovered magnetic field direction from a single sample, usually provided by demagnetization techniques and principal component analysis.
broader term: characteristic remanent magnetization

maximum density

definition: the single largest value for wood density obtained for a particular annual growth ring in a tree.
broader term: density

maximum surface temperature

definition: the maximum temperature at the earth surface over a particular time period in a given location.
broader term: maximum temperature

maximum temperature

definition: the highest temperature over a particular time period.
broader term: temperature variable
narrower term: maximum air temperature
narrower term: maximum surface temperature

median destructive field

definition: the peak alternating field strength at which 50% of a remanent magnetization is demagnetized (Encyclopedia of Geomagnetism and Paleomagnetism).
broader term: magnetic field properties
synonym: MDF

Melonis barleeanus

definition: a particular species of the genus Melonis (TSN: 46048; urn:lsid:marinespecies.org:taxname:113563).
broader term: identified foraminifer

melt

definition: a formation property that quantifies the degree of melting that occurred during the process of snow or ice accumulation in a glacier.
broader term: formation property

mercallite

definition: a sulfate mineral with the formula KHSO_4 (Dana 8th ed.: 28.1.1.1; Nickel-Strunz 10th (pending) ed.: 7.AD.10; <https://www.mindat.org/min-2646.html>).

broader term: sulfate mineral

mercury

definition: a chemical element with atomic number 80.

broader term: element or single-element molecule

synonym: Hg

meridional overturning streamfunction

definition: a circulation of the ocean defined for latitude and depth and obtained as the integral of the ocean velocity between the east and west boundaries of the basin and from the surface to a given depth (CF: ocean_meridional_overturning_streamfunction, ocean_meridional_overturning_mass_streamfunction).

broader term: circulation variable

methane

definition: an alkane that has the formula CH₄ (CHEBI: 16183).

broader term: n-alkane

synonym: CH₄

methanesulfonate

definition: an organosulfur compound that has the chemical formula CH₃O₃S (CHEBI: 25224).

broader term: organosulfur compound

methanesulfonic acid

definition: an organosulfur compound that has the chemical formula CH₄O₃S (CHEBI: 27376).

broader term: organosulfur compound

methylation index of branched tetraethers

definition: an organic compound index that is calculated as the ratio of various branched tetraethers, as defined by Weijers et al. 2007 as: $(Ia+Ib+Ic)/(Ia+Ib+Ic+IIa+IIb+IIc+IIIa+IIIb+IIIc)$ and that reflects both temperature and soil pH.

broader term: organic compound index

synonym: MBT index

mica group

definition: a silicate mineral with the general formula (K,Na,Ca)(Mg,Fe,Li,Al)₂₋₃(Al,Si)₄O₁₀(OH,F)₂ (www.mindat.org/min-6728.html).

broader term: silicate mineral

synonym: phengite

narrower term: biotite series

narrower term: glauconite

narrower term: illite

narrower term: muscovite

narrower term: polyolithionite

microcline

definition: a potassium feldspar with the formula KAlSi₃O₈ (Dana 8th ed.: 76.1.1.5; Nickel-Strunz 10th (pending) ed.: 9.FA.30; <https://www.mindat.org/min-2704.html>).

broader term: potassium feldspar

midge index

definition: a measurement of organisms belonging to several families of the Order Diptera, such as a ratio or count, that is derived from a series of observations and that is used as an indicator or measure.

broader term: insect index

narrower term: total head capsules

mineral index

definition: a summation or ratio of identified minerals that is significant to paleoclimate or paleoenvironment. The specific mineral index should be described in the "Additional Information" field.

broader term: identified mineral

mineral matter

definition: a bulk geological material that consists of particles composed of minerals. In many contexts, mineral matter is exogenic (detrital) inorganic matter. This quantity is derived using a variety of methods, e.g., high-temperature loss-on-ignition, or by subtracting measurements of various organic and endogenic (e.g., authigenic carbonate, biogenic silica) components from total bulk sediment.

broader term: bulk geological material

synonym: detrital matter

synonym: detrital sediment

synonym: exogenic sediment

synonym: terrigenous matter

synonym: terrigenous sediment

narrower term: ice rafted debris

narrower term: volcanic material

minimum air temperature

definition: the minimum temperature of air at a level of the atmosphere that should be specified in the "Additional Information" field.

broader term: minimum temperature

minimum density

definition: the single smallest value for wood density obtained for a particular annual growth ring in a tree.

broader term: density

minimum surface temperature

definition: the minimum temperature at the earth surface over a particular time period in a given location.

broader term: minimum temperature

minimum temperature

definition: the lowest temperature over a particular time period.

broader term: temperature variable

narrower term: minimum air temperature

narrower term: minimum surface temperature

mixed layer depth

definition: the thickness of the upper, well-mixed portion of the ocean (CF: `ocean_mixed_layer_thickness`).

broader term: circulation variable

modal chain length

definition: a chain length index that is the most frequently measured value of the number of carbon atoms in organic compound chains within a sample.

broader term: chain length index

mode-of-variability variable

definition: an earth system variable that describes or quantifies a climate pattern with identifiable characteristics, specific regional effects, and often oscillatory behavior (Wikipedia).

broader term: earth system variable

narrower term: Arctic Oscillation Index

narrower term: Atlantic Multidecadal Oscillation Index

narrower term: Atlantic Multidecadal Variability Index

narrower term: California Current Index

narrower term: Dipole Mode Index

narrower term: El Nino Southern Oscillation Index

narrower term: Interdecadal Pacific Oscillation Index

narrower term: North Atlantic Oscillation Index

narrower term: Northern Oscillation Index

narrower term: Pacific Decadal Oscillation Index

narrower term: Pacific-North American Pattern

narrower term: South Asian Summer Monsoon Index

narrower term: Southern Annular Mode

narrower term: Upwelling Index

moisture index

definition: a hydroclimatic index that describes conditions on a scale ranging from "wetter" to "drier."

broader term: hydroclimate index

molybdenum

definition: a chemical element with atomic number 42.

broader term: element or single-element molecule

synonym: Mo

molybdenum/aluminum

definition: the elemental ratio of molybdenum to aluminum.

broader term: element or compound ratio

synonym: Mo/Al

mortality

definition: an ecosystem process variable that quantifies the death rate, often expressed in terms of biomass per time, within a particular group of organisms.

broader term: ecosystem process

multivariate eigenvector-based variable

definition: a statistical variable that is calculated using eigenvector-based methods to combine multiple data variables for data compression and dimensionality reduction.

broader term: statistical variable

narrower term: correspondence analysis axis

narrower term: empirical orthogonal function

narrower term: factor score

narrower term: principal component

Munsell color system

definition: reflectance that is quantified according to three independent dimensions and based in human visual perception.

broader term: reflectance

narrower term: chroma
narrower term: hue
narrower term: value

muscovite

definition: a mica group mineral with the formula $KAl_2(AlSi_3O_{10})(OH)_2$ (Dana 8th ed.: 71.2.2a.1; Nickel-Strunz 10th (pending) ed.: 9.EC.15; <https://www.mindat.org/min-2815.html>).
broader term: mica group

n-alkane

definition: an alkane that has a linear, or straight chain, structure.

broader term: alkane

narrower term: C10 n-alkane

narrower term: C11 n-alkane

narrower term: C12 n-alkane

narrower term: C13 n-alkane

narrower term: C14 n-alkane

narrower term: C15 n-alkane

narrower term: C16 n-alkane

narrower term: C17 n-alkane

narrower term: C18 n-alkane

narrower term: C19 n-alkane

narrower term: C20 n-alkane

narrower term: C21 n-alkane

narrower term: C22 n-alkane

narrower term: C23 n-alkane

narrower term: C24 n-alkane

narrower term: C25 n-alkane

narrower term: C26 n-alkane

narrower term: C27 n-alkane

narrower term: C28 n-alkane

narrower term: C29 n-alkane

narrower term: C30 n-alkane

narrower term: C31 n-alkane

narrower term: C32 n-alkane

narrower term: C33 n-alkane

narrower term: C34 n-alkane

narrower term: C35 n-alkane

narrower term: methane

n-alkanoic acid

definition: a saturated fatty acid with the general formula $C_nH_{2n+1}COOH$.

broader term: saturated fatty acid

narrower term: C16 n-alkanoic acid

narrower term: C17 n-alkanoic acid

narrower term: C18 n-alkanoic acid

narrower term: C19 n-alkanoic acid

narrower term: C20 n-alkanoic acid

narrower term: C21 n-alkanoic acid

narrower term: C22 n-alkanoic acid

narrower term: C23 n-alkanoic acid

narrower term: C24 n-alkanoic acid

narrower term: C25 n-alkanoic acid
narrower term: C26 n-alkanoic acid
narrower term: C27 n-alkanoic acid
narrower term: C28 n-alkanoic acid
narrower term: C29 n-alkanoic acid
narrower term: C30 n-alkanoic acid
narrower term: C31 n-alkanoic acid
narrower term: C32 n-alkanoic acid
narrower term: C33 n-alkanoic acid
narrower term: C34 n-alkanoic acid
narrower term: formic acid

natural remanent magnetization

definition: the permanent magnetism of a rock or sediment present before any treatment. The NRM includes primary components (ChRM) that were acquired when the rock formed, and secondary components that were acquired after rock formation due to exposure to other large magnetic fields.
broader term: remanent magnetization
synonym: NRM
narrower term: characteristic remanent magnetization

natural remanent magnetization/anhysteretic remanent magnetization

definition: a magnetic ratio of the natural remanent magnetization to the anhysteretic remanent magnetization, which can yield a qualitative measure of paleointensity of the geomagnetic field.
broader term: magnetic ratios
synonym: NRM/ARM

natural remanent magnetization/isothermal remanent magnetization

definition: a magnetic ratio of the natural remanent magnetization to the isothermal remanent magnetization, which can yield a qualitative measure of paleointensity of the geomagnetic field.
broader term: magnetic ratios
synonym: NRM/IRM

neodymium

definition: a chemical element with atomic number 60.
broader term: element or single-element molecule
synonym: Nd

Neogloboquadrina dutertrei

definition: a particular species of the genus *Neogloboquadrina* (urn:lsid:marinespecies.org:taxname:113473).
broader term: identified foraminifer

Neogloboquadrina incompta

definition: a particular species of the genus *Neogloboquadrina* (urn:lsid:marinespecies.org:taxname:113474).
broader term: identified foraminifer

Neogloboquadrina pachyderma

definition: a particular species of the genus *Neogloboquadrina* (urn:lsid:marinespecies.org:taxname:113458).
broader term: identified foraminifer
narrower term: *Neogloboquadrina pachyderma dextral*

narrower term: Neogloboquadrina pachyderma sinistral

Neogloboquadrina pachyderma dextral

definition: the right-coiling morphotype of Neogloboquadrina pachyderma.

broader term: Neogloboquadrina pachyderma

Neogloboquadrina pachyderma sinistral

definition: the left-coiling morphotype of Neogloboquadrina pachyderma.

broader term: Neogloboquadrina pachyderma

neon

definition: a chemical element with atomic number 10.

broader term: element or single-element molecule

synonym: Ne

neritic:pelagic diatom

definition: the ratio of neritic to pelagic diatoms in a sample.

broader term: diatom ratio

nickel

definition: a chemical element with atomic number 28.

broader term: element or single-element molecule

synonym: Ni

Nino 1+2 sea surface temperature index

definition: an index of the El Nino Southern Oscillation that is calculated as the sea surface temperature anomaly averaged over 0-10 degrees south latitude and 90 to 80 degrees west longitude.

broader term: El Nino Southern Oscillation Index

Nino 3 sea surface temperature index

definition: an index of the El Nino Southern Oscillation that is calculated as the sea surface temperature anomaly averaged over 5 degrees north to 5 degrees south latitude and 150 to 90 degrees west longitude.

broader term: El Nino Southern Oscillation Index

Nino 3.4 sea surface temperature index

definition: an index of the El Nino Southern Oscillation that is calculated as the sea surface temperature anomaly averaged over 5 degrees north to 5 degrees south latitude and 170 to 120 degrees west longitude.

broader term: El Nino Southern Oscillation Index

Nino 4 sea surface temperature index

definition: an index of the El Nino Southern Oscillation that is calculated as the sea surface temperature anomaly averaged over 5 degrees north to 5 degrees south latitude and 160 degrees east to 150 degrees west longitude.

broader term: El Nino Southern Oscillation Index

niobium

definition: a chemical element with atomic number 41.

broader term: element or single-element molecule

synonym: Nb

niobium/titanium

definition: the elemental ratio of niobium to titanium.
broader term: element or compound ratio
synonym: Nb/Ti

nitrate

definition: an inorganic compound that has the chemical formula NO_3^- (CHEBI: 17632).
broader term: inorganic compound
synonym: NO_3^-

nitrite

definition: an inorganic compound that has the chemical formula NO_2^- (CHEBI: 16301).
broader term: inorganic compound
synonym: NO_2^-

nitrogen

definition: a chemical element with atomic number 7.
broader term: element or single-element molecule
synonym: N
narrower term: dissolved organic nitrogen
narrower term: nitrogen gas

nitrogen fixation

definition: an ecosystem process variable that quantifies the production of ammonia from nitrogen gas by nitrogen-fixing organisms, called diazotrophs.
broader term: ecosystem process

nitrogen gas

definition: nitrogen that exists as a diatomic gas.
broader term: nitrogen
synonym: N_2

nitrogen/phosphorus

definition: the elemental ratio of nitrogen to phosphorus.
broader term: element or compound ratio
synonym: N/P

nitrogen/sulfur

definition: the elemental ratio of nitrogen to sulfur.
broader term: element or compound ratio
synonym: N/S

nitrous oxide

definition: an inorganic compound that has the chemical formula N_2O .
broader term: inorganic compound
synonym: N_2O

non-freezing days

definition: a temperature index that counts the number of days with minimum temperatures above 0 degrees Celsius.

broader term: temperature index

non-sea-salt calcium

definition: calcium that is derived from sources other than sea salt.
broader term: calcium
synonym: nss Ca
synonym: nss calcium

non-sea-salt sulfate

definition: sulfate that is derived from sources other than sea salt.
broader term: sulfate
synonym: nss sulfate
synonym: nss sulphate

non-sea-salt sulfur

definition: sulfur that is derived from sources other than sea salt.
broader term: sulfur
synonym: non-sea-salt sulphur
synonym: nss S
synonym: nss sulfur
synonym: nss sulphur

North Atlantic Deep Water

definition: a circulation variable that measures the flux of the deep water mass formed in the North Atlantic Ocean.
broader term: circulation variable
synonym: NADW

North Atlantic Oscillation Index

definition: a circulation index that is calculated from the sea level pressure difference between the subtropical (Azores) high and the subpolar low in the North Atlantic.
broader term: mode-of-variability variable
synonym: NAO

North Pacific Intermediate Water

definition: a circulation variable that measures the flux of the intermediate-depth water mass formed in the North Pacific Ocean.
broader term: circulation variable
synonym: NPIW

Northern Oscillation Index

definition: a circulation index that is calculated as the difference in sea level pressure anomalies at the North Pacific High and at Darwin, Australia.
broader term: mode-of-variability variable
synonym: NOI

northward ocean heat transport

definition: the transport of heat by all processes in the ocean, and both sea water and sea ice, with northward transport being positive (CF: northward_ocean_heat_transport).
broader term: circulation variable

northward ocean salt transport

definition: the transport of salt by all processes in the ocean, and both sea water and sea ice, with northward transport being positive (CF: northward_ocean_salt_transport).
broader term: circulation variable

northward wind speed

definition: the magnitude of the northward vector component of wind at some level in the atmosphere. Height within the atmosphere should be described in the "Additional Information" field. (CF: northward_wind).
broader term: wind speed

notes

definition: sampling metadata that describes study-specific aspects of sample collection and/or analysis.
broader term: sampling metadata

number of samples

definition: sampling metadata that quantifies the number of samples or measurements that were combined, either physically or statistically, into a resultant data series.
broader term: sampling metadata

Nuttallides umbonifera

definition: a particular species of the genus Nuttallides (urn:lsid:marinespecies.org:taxname:466429).
broader term: identified foraminifer

ocean area

definition: a hydrographic variable that quantifies the surface area of the ocean over specified geographic bounds.
broader term: hydrographic variable

octacosanol

definition: An alcohol with the chemical formula C₂₈H₅₈O that is a biomarker of terrestrial plants (CHEBI: 28243).
broader term: alcohol

oligoclase

definition: a plagioclase feldspar mineral that has the general formula (Ca,Na)Al(Si,Al)Si₂O₈ with 70-90% Na and 10-30% Ca.
broader term: plagioclase feldspar series

orbital parameter

definition: a forcing variable that quantifies an aspect of the earth's orbit (e.g., eccentricity, obliquity, precession).
broader term: forcing variable

Orbulina universa

definition: a particular species of the genus Orbulina (TSN: 45817; urn:lsid:marinespecies.org:taxname:113460).
broader term: identified foraminifer

organic carbon

definition: carbon that is derived from an organic source.
broader term: carbon
synonym: organic C

narrower term: dissolved organic carbon

organic carbon/nitrogen

definition: the elemental ratio of organic carbon to nitrogen.

broader term: carbon/nitrogen

synonym: C/N organic

organic compound

definition: a compound that consists of one or more atoms of carbon covalently linked to atoms of other elements, most commonly hydrogen, oxygen, or nitrogen.

broader term: compound

narrower term: aromatic compound

narrower term: hydrocarbon

narrower term: organic compound index

narrower term: organic hydroxy compound

narrower term: organic pigment

narrower term: organohalogen compound

narrower term: organooxygen compound

narrower term: organosulfur compound

organic compound index

definition: a measurement of specific organic compounds, such as a ratio or count, that is derived from a series of observations and that is used as an indicator or measure of environmental conditions.

broader term: organic compound

narrower term: alkenone unsaturation index

narrower term: branched and isoprenoid tetraether index

narrower term: carbon preference index

narrower term: chain length index

narrower term: cyclization index of branched tetraethers

narrower term: dinosterol ice proxy with 25 carbon atoms index

narrower term: hydrogen index

narrower term: methylation index of branched tetraethers

narrower term: oxygen index

narrower term: P-aqueous

narrower term: terrestrial to aquatic ratio

narrower term: tetraether index of 86 carbon atoms

narrower term: vegetation change index

organic compound mineral

definition: an identified mineral that is a hydrocarbon, a salt of an organic acid, or has some other source from a biological material.

broader term: identified mineral

narrower term: kafehydrocyanite

organic hydroxy compound

definition: an organic compound having at least one hydroxy group attached to a carbon atom (CHEBI: 33822).

broader term: organic compound

narrower term: alcohol

narrower term: glycerol dialkyl glycerol tetraether

narrower term: sterol

organic matter

definition: a bulk biological material that consists of complex substances of mainly carbon, hydrogen, and oxygen with subordinate amounts of nitrogen, sulfur, and other elements, produced by the growth of organisms (Smol et al. 2001 Tracking Environmental Change Using Lake Sediments).

broader term: bulk biological material

organic pigment

definition: an organic compound that changes the color of reflected or transmitted light as the result of wavelength-selective absorption (Wikipedia).

broader term: organic compound

narrower term: carotenoid

narrower term: chlorophyll

organism

definition: a biological material that allows for the taxonomic identification, either broadly or generally, of an individual animal, plant, or single-celled life form.

broader term: biological material

narrower term: brachiopod

narrower term: chlorophyte

narrower term: chrysophyte

narrower term: cladoceran

narrower term: coccolithophore

narrower term: diatom

narrower term: dinoflagellate

narrower term: echinoid

narrower term: fish

narrower term: foraminifer

narrower term: gastropod

narrower term: insect

narrower term: organism index

narrower term: ostracod

narrower term: radiolarian

narrower term: silicoflagellate

narrower term: sponge

narrower term: testate amoeba

organism index

definition: a measurement, such as a ratio or count, of organisms not belonging to the same high-level taxonomic group that is derived from a series of observations and that is used as an indicator or measure.

broader term: organism

organohalogen compound

definition: an organic compound containing at least one carbon-halogen bond (CHEBI: 36684).

broader term: organic compound

narrower term: chlorofluorocarbon

organooxygen compound

definition: an organic compound that contains at least one carbon-oxygen bond (CHEBI: 36963).

broader term: organic compound

narrower term: acetate

narrower term: amino acid

narrower term: carbohydrate

narrower term: fatty acid
narrower term: formaldehyde
narrower term: formate
narrower term: ketone
narrower term: oxalate

organosulfur compound

definition: an organic compound that contains at least one carbon-sulfur bond (CHEBI: 33261).
broader term: organic compound
narrower term: methanesulfonate
narrower term: methanesulfonic acid

Oridorsalis umbonatus

definition: a particular species of the genus Oridorsalis (urn:lsid:marinespecies.org:taxname:254690).
broader term: identified foraminifer

orthoclase

definition: a potassium feldspar with the formula $KAlSi_3O_8$ (Dana 8th ed.: 76.1.1.1; Nickel-Strunz 10th (pending) ed.: 9.FA.30; <https://www.mindat.org/min-3026.html>).
broader term: potassium feldspar
synonym: adularia

osmium

definition: a chemical element with atomic number 76.
broader term: element or single-element molecule
synonym: Os

ostracod

definition: an identifiable organism that belongs to the kingdom Animalia, phylum Arthropoda, class Ostracoda (TSN: 84195).
broader term: organism
narrower term: identified ostracod
narrower term: ostracod index

ostracod index

definition: a measurement of ostracods, such as a ratio or count, that is derived from a series of observations and that is used as an indicator or measure.
broader term: ostracod
narrower term: total ostracods

oxalate

definition: an organooxygen compound with the formula $C_2O_4^{2-}$ (CHEBI: 132952).
broader term: organooxygen compound
synonym: ethanedioate

oxide and hydroxide minerals

definition: an identified mineral that is characterized by the linkage of oxygen or hydroxide (OH) with one or more metallic elements (Dictionary of Geological Terms).
broader term: identified mineral
narrower term: billietite
narrower term: birnessite
narrower term: bismite

narrower term: chrysoberyl
narrower term: goethite
narrower term: hematite group
narrower term: maghemite
narrower term: magnetite

oxygen

definition: a chemical element with atomic number 8.
broader term: element or single-element molecule
synonym: O
narrower term: oxygen gas

oxygen gas

definition: oxygen that exists as a diatomic gas.
broader term: oxygen
synonym: O₂
narrower term: dissolved oxygen

oxygen index

definition: an organic compound index that measures the amount of oxygen relative to the amount of organic carbon present in a sample.
broader term: organic compound index

P-aqueous

definition: an organic compound index that measures the relative predominance of submerged versus emergent aquatic plants and that is generally calculated from n-alkanes as $(C_{23} + C_{25}) / (C_{23} + C_{25} + C_{29} + C_{31})$.
broader term: organic compound index
synonym: Paq

p-value

definition: a hypothesis testing variable that is the probability of finding either the observed or more extreme results when the null hypothesis (H₀) of a study question is true.
broader term: hypothesis testing variable

P-wave amplitude

definition: a wave property that is a measure of the magnitude of a compressional (P) wave.
broader term: wave property

P-wave velocity

definition: a wave property that is a measure of the rate of movement of a compressional (P) wave.
broader term: wave property

Pacific Decadal Oscillation Index

definition: a circulation index that is calculated as the normalized first principal component of monthly sea surface temperature anomalies over the Pacific Ocean north of 20 degrees north latitude after the global average sea surface temperature has been removed.
broader term: mode-of-variability variable
synonym: PDO
synonym: PDO Index
synonym: PDOI

Pacific-North American Pattern

definition: a circulation index that is calculated from 500 hPa geopotential height anomalies at four locations over the Pacific and North America or from the second principal component of Northern Hemisphere extratropical sea level pressure anomalies, and that relates to temperature and precipitation anomalies over North America.

broader term: mode-of-variability variable

synonym: PNA

paleodrainage direction

definition: a hydrographic variable that describes the direction of streamflow in the past.

broader term: hydrographic variable

paleointensity

definition: a measure obtained from the characteristic remanent magnetization of a sample of the strength of the magnetic field in earth's past.

broader term: characteristic remanent magnetization

palladium

definition: a chemical element with atomic number 46.

broader term: element or single-element molecule

synonym: Pd

Palmer Drought Severity Index

definition: a hydroclimate index that employs temperature and precipitation information to estimate relative dryness taking into consideration the cumulative nature of long-term drought.

broader term: hydroclimate index

synonym: PDSI

Palmer Hydrologic Drought Index

definition: a hydroclimate index that employs temperature and precipitation information to estimate hydrological impacts of drought (e.g., reservoir levels, groundwater levels, etc) taking into consideration the cumulative nature of long-term drought.

broader term: hydroclimate index

synonym: PHDI

Palmer Modified Drought Index

definition: a hydroclimate index that employs temperature and precipitation information, as an operational version of the Palmer Drought Severity Index, to estimate relative dryness taking into consideration the cumulative nature of long-term drought.

broader term: hydroclimate index

particles

definition: a bulk geological material that consists of a small quantity of a substance that is measurable in its size or composition.

broader term: bulk geological material

peat

definition: a bulk biological material that consists of an unconsolidated combustible deposit of partially carbonized plant remains, common in bogs, fens, and lakes in tundra or periglacial regions (Smol et al. 2001 Tracking Environmental Change Using Lake Sediments).

broader term: bulk biological material

narrower term: humification index

pH

definition: a measure of acidity that is calculated as the negative logarithm of the hydrogen ion concentration.

broader term: acidity

phenol

definition: an aromatic compound with the formula C₆H₅OH (CHEBI: 15882).

broader term: aromatic compound

phenological event

definition: an ecosystem variable that is a periodic animal or plant life cycle event that is influenced by climate and other habitat factors (Wikipedia).

broader term: ecosystem phenomenon

narrower term: grain harvest date

narrower term: grape harvest date

phenylalanine

definition: an amino acid with the formula C₉H₁₁NO₂ (CHEBI: 28044).

broader term: amino acid

phosphate

definition: an inorganic compound that has the chemical formula PO₄³⁻.

broader term: inorganic compound

synonym: PO₄

narrower term: dissolved phosphate

phosphate mineral

definition: an identified mineral that contains tetrahedral PO₄³⁻ groups (Dictionary of Geological Terms).

broader term: identified mineral

narrower term: anapaite

narrower term: bearsite

narrower term: brushite

narrower term: chalcociderite

narrower term: vivianite

phosphorus

definition: a chemical element with atomic number 15.

broader term: element or single-element molecule

synonym: P

narrower term: dissolved organic phosphorus

phosphorus oxide

definition: an inorganic compound that is any one of a number of oxides of phosphorus, containing oxygen and phosphorus atoms (CHEBI: 37349).

broader term: inorganic compound

narrower term: phosphorus pentoxide

phosphorus pentoxide

definition: a phosphorus oxide with the chemical formula P₄O₁₀.

broader term: phosphorus oxide

synonym: P₂O₅

phosphorus/aluminum

definition: the elemental ratio of phosphorus to aluminum.

broader term: element or compound ratio

synonym: P/Al

phosphorus/calcium

definition: the elemental ratio of phosphorus to calcium..

broader term: element or compound ratio

synonym: P/Ca

phosphorus/titanium

definition: the elemental ratio of phosphorus to titanium.

broader term: element or compound ratio

synonym: P/Ti

photosynthetically active radiation

definition: the amount of light available for photosynthesis, which is generally the sum of light (photons) in the wavelength range of 400 to 700 nanometers per area per time.

broader term: radiative flux variable

physical property

definition: properties that describe the physical characteristics of a substance.

broader term: what

narrower term: angle

narrower term: area

narrower term: density

narrower term: diameter

narrower term: length

narrower term: mass

narrower term: porosity

narrower term: volume

narrower term: wave property

narrower term: weight

phytane

definition: a branched alkane that has the formula C₂₀H₄₂ (CHEBI 48937).

broader term: branched alkane

phytol

definition: an alcohol with the formula C₂₀H₄₀O (CHEBI: 17327).

broader term: alcohol

phytoliths

definition: a bulk biological material that consists of any element, such as calcium or silica, deposited within various structures and tissues of plants (Smol et al. 2001 Tracking Environmental Change Using Lake Sediments).

broader term: bulk biological material

phytoplankton

definition: the quantity of autotrophic prokaryotic or eukaryotic algae that live near the water surface where there is sufficient light to support photosynthesis

(CF: mole_concentration_of_phytoplankton_expressed_as_carbon_in_sea_water, mole_concentration_of_phytoplankton_expressed_as_nitrogen_in_sea_water, mole_concentration_of_phytoplankton_expressed_as_phosphorus_in_sea_water).

broader term: ecosystem quantity

narrower term: diazotroph

plagioclase feldspar series

definition: a feldspar group mineral that exists on the continuum of $\text{CaAl}_2\text{Si}_2\text{O}_8$ to $\text{NaAlSi}_3\text{O}_8$ (www.mindat.org/min-3231.html).

broader term: feldspar group

narrower term: albite

narrower term: andesine

narrower term: anorthite

narrower term: bytownite

narrower term: labradorite

narrower term: oligoclase

planetary albedo

definition: the ratio of reflected light to incident light at the top of the atmosphere (CF: planetary_albedo).

broader term: radiative flux variable

planktic:benthic diatom

definition: the ratio of planktic to benthic diatoms in a sample.

broader term: diatom ratio

planktic:benthic foraminifer

definition: a foraminiferal index that is the ratio of planktic to benthic foraminifers (or benthic to planktic foraminifers) in a sample.

broader term: foraminiferal index

plant available moisture

definition: an ecosystem variable that quantifies the difference in water content in soil between field capacity and the permanent wilting point.

broader term: ecosystem quantity

platinum

definition: a chemical element with atomic number 78.

broader term: element or single-element molecule

synonym: Pt

polonium

definition: a chemical element with atomic number 84.

broader term: element or single-element molecule

synonym: Po

polycyclic aromatic hydrocarbon

definition: an aromatic compound that is a hydrocarbon and that is composed of multiple aromatic rings and no branching structures.

broader term: aromatic compound

polyolithionite

definition: a mica group mineral with the formula: $\text{KLi}_2\text{AlSi}_4\text{O}_{10}\text{F}_2$ (Dana 8th ed.: 71.2.2b.8; Nickel-Strunz 10th (pending) ed.: 9.EC.20; <https://www.mindat.org/min-3260.html>).
broader term: mica group

porosity

definition: a physical property that compares the volume or area of empty spaces in a material to the total volume or area.
broader term: physical property
narrower term: air content
narrower term: water content

potassium

definition: a chemical element with atomic number 19.
broader term: element or single-element molecule
synonym: K

potassium feldspar

definition: alkali feldspar minerals of the chemical composition KAlSi_3O_8 but with varying crystal structures.
broader term: alkali feldspar series
narrower term: microcline
narrower term: orthoclase

potassium oxide

definition: an inorganic compound that has the chemical formula K_2O (CHEBI: 88321).
broader term: inorganic compound
synonym: K_2O

potassium/aluminum

definition: the elemental ratio of potassium to aluminum.
broader term: element or compound ratio
synonym: K/Al

potassium/titanium

definition: the elemental ratio of potassium to titanium.
broader term: element or compound ratio
synonym: K/Ti

potential temperature

definition: the temperature that a parcel of fluid would have if brought adiabatically to a reference pressure. For atmospheric parcels, the reference pressure is often 1 bar (100 kPa) and for ocean parcels it is often the pressure at the ocean surface.
broader term: temperature variable
narrower term: air potential temperature
narrower term: sea water potential temperature

praseodymium

definition: a chemical element with atomic number 59.
broader term: element or single-element molecule
synonym: Pr
synonym: praseodymium

precipitable water

definition: the vertical integral from the bottom to top of the atmosphere of water in all phases (CF: atmosphere_mass_content_of_water, lwe_thickness_of_atmosphere_mass_content_of_water_vapor).
broader term: hydroclimate quantity

precipitation

definition: the hydroclimatic rate of rain, snow, sleet or hail that falls to the ground (CF: lwe_precipitation_rate, lwe_thickness_of_precipitation_amount, precipitation_amount, precipitation_flux).
broader term: hydroclimate rate
narrower term: convective precipitation
narrower term: large-scale precipitation
narrower term: rainfall
narrower term: snowfall

precipitation minus evaporation

definition: the difference in rate between precipitation and evaporation at the earth's surface.
broader term: hydroclimate rate
synonym: P-E

precipitation minus evapotranspiration

definition: the difference in rate between precipitation at the land surface and evaporation and transpiration from the land surface.
broader term: hydroclimate rate
synonym: P-ET

precipitation minus potential evapotranspiration

definition: the difference in rate between precipitation at the land surface and the evaporation that would occur from the land surface if a sufficient water source were available.
broader term: hydroclimate rate
synonym: P-PET

primary productivity

definition: an ecosystem variable that quantifies the synthesis and storage of organic molecules during the growth and reproduction of photosynthetic organisms.
broader term: productivity

principal component

definition: a multivariate eigenvector-based variable that is one of a set of linearly uncorrelated time series patterns that are derived using an orthogonal transformation on a set of continuous data observations. Contributors should indicate which principal component is being reported (e.g., PC#1) and briefly describe the sort of data analyzed (e.g., grain size, multiple geochemical proxies) in the "Additional Information" field.
broader term: multivariate eigenvector-based variable

pristane

definition: a branched alkane that has the formula C₁₉H₄₀ (CHEBI: 53181).
broader term: branched alkane

productivity

definition: an ecosystem process variable that quantifies the rate of generation of biomass in an ecosystem.
broader term: ecosystem process

narrower term: primary productivity

proline

definition: an amino acid with the formula C₅H₉NO₂ (CHEBI: 26271).

broader term: amino acid

protactinium

definition: a chemical element with atomic number 91.

broader term: element or single-element molecule

synonym: Pa

proustite

definition: a sulfide mineral with the formula Ag₃AsS₃ (Dana 8th ed.: 3.4.1.1; Nickel-Strunz 10th (pending) ed.: 2.GA.05; <https://www.mindat.org/min-3294.html>).

broader term: sulfide mineral

provenance

definition: a formation property that describes or quantifies the location or nature of sediment source areas.

broader term: formation property

proxy composite

definition: a statistical variable that results from compositing multiple, usually normalized, proxy time series.

broader term: statistical variable

narrower term: tree ring standardized growth index

Pulleniatina obliquiloculata

definition: a particular species of the genus Pulleniatina (urn:lsid:marinespecies.org:taxname:221331).

broader term: identified foraminifer

pyrite

definition: a sulfide mineral with the formula FeS₂ (Dana 8th ed.: 2.12.1.1; Nickel-Strunz 10th (pending) ed.: 2.EB.05a; <https://www.mindat.org/min-3314.html>).

broader term: sulfide mineral

pyrope

definition: a silicate mineral with the formula Mg₃Al₂(SiO₄)₃ (Dana 8th ed.: 51.4.3a.1; Nickel-Strunz 10th (pending) ed.: 9.AD.25; <https://www.mindat.org/min-3321.html>).

broader term: silicate mineral

pyroxene

definition: a silicate mineral with the general formula AB₂Si₂O₆ where A is mainly Mg, Fe²⁺, Ca, or Na and B is mainly Mg, Fe²⁺, or Al (www.mindat.org/min-9767.html).

broader term: silicate mineral

narrower term: clinoenstatite

quartz

definition: a silicate with the formula SiO₂ (Dana 8th ed.: 75.1.3.1; Nickel-Strunz 10th (pending) ed.: 4.DA.05; <https://www.mindat.org/min-3337.html>).

broader term: silicate mineral

radiative flux variable

definition: an energy flux variable that is a measurement of fluxes of radiation within the Earth's atmosphere, at any levels ranging from the top of the atmosphere to the Earth surface.

broader term: energy flux variable

narrower term: aerosol optical depth

narrower term: effective aerosol radius

narrower term: longwave cloud radiative effect

narrower term: photosynthetically active radiation

narrower term: planetary albedo

narrower term: shortwave cloud radiative effect

narrower term: surface downwelling clear-sky longwave radiation

narrower term: surface downwelling clear-sky shortwave radiation

narrower term: surface downwelling longwave radiation

narrower term: surface downwelling shortwave radiation

narrower term: surface net downward clear-sky longwave radiation

narrower term: surface net downward clear-sky shortwave radiation

narrower term: surface net downward longwave radiation

narrower term: surface net downward radiation

narrower term: surface net downward shortwave radiation

narrower term: surface net upward clear-sky longwave radiation

narrower term: surface net upward longwave radiation

narrower term: surface upwelling clear-sky longwave radiation

narrower term: surface upwelling clear-sky shortwave radiation

narrower term: surface upwelling longwave radiation

narrower term: surface upwelling shortwave radiation

narrower term: top-of-atmosphere net downward clear-sky longwave radiation

narrower term: top-of-atmosphere net downward clear-sky shortwave radiation

narrower term: top-of-atmosphere net downward longwave radiation

narrower term: top-of-atmosphere net downward radiation

narrower term: top-of-atmosphere net downward shortwave radiation

narrower term: top-of-atmosphere net upward clear-sky longwave radiation

narrower term: top-of-atmosphere net upward longwave radiation

narrower term: top-of-atmosphere net upward shortwave radiation

narrower term: top-of-atmosphere outgoing clear-sky longwave radiation

narrower term: top-of-atmosphere outgoing clear-sky shortwave radiation

narrower term: top-of-atmosphere outgoing longwave radiation

narrower term: top-of-atmosphere outgoing shortwave radiation

radiolarian

definition: an identifiable organism that belongs to the kingdom Protozoa, order Radiolaria (TSN: 46088).

broader term: organism

narrower term: identified radiolarian

narrower term: radiolarian index

radiolarian index

definition: a measurement of radiolarians, such as a ratio or count, that is derived from a series of observations and that is used as an indicator or measure.

broader term: radiolarian

narrower term: total radiolarians

rainfall

definition: the hydroclimatic rate of precipitation in the form of liquid water falling to the ground (CF: thickness_of_rainfall_amount, rainfall_amount, rainfall_flux, rainfall_rate)
broader term: precipitation

red intensity

definition: a component of the RGB color system that measures the level of red light required to produce the color of a substance.
broader term: RGB color system

red-green contrast

definition: an axis of the CIELAB color system, with negative values indicating green and positive values indicating red.
broader term: CIE L*a*b* color system
synonym: a*

reflectance

definition: an electromagnetic property that measures the amount of light that reflects from the surface of a material.
broader term: electromagnetic property
narrower term: CIE L*a*b* color system
narrower term: CIEXYZ color system
narrower term: grayscale
narrower term: Munsell color system
narrower term: RGB color system
narrower term: scattering

relative humidity

definition: the ratio of water vapor present in air to the amount of water needed to achieve saturation at the local temperature. Height within the atmosphere at which the measurement applies should be described in the "Additional Information" field (CF: relative_humidity).
broader term: hydroclimate ratio
synonym: RH

relative sea level

definition: sea level that is the result of the rising or falling of land relative to the ocean surface.
broader term: sea level

relative vorticity

definition: the vorticity, or spinning motion, of the velocity field of a fluid relative to the earth (CF: atmosphere_relative_vorticity, ocean_relative_vorticity).
broader term: circulation variable

remanent magnetization

definition: the magnetization remaining in a sample after exposure to an external magnetic field.
broader term: magnetic moments
narrower term: anhysteretic remanent magnetization
narrower term: isothermal remanent magnetization
narrower term: natural remanent magnetization
narrower term: saturation remanent magnetization

remineralization

definition: an ecosystem process variable that quantifies the the degradation of organic matter into inorganic forms of carbon, nitrogen, phosphorus and other micronutrients, which consumes oxygen and releases energy (CF definition).
broader term: ecosystem process

reservoir age

definition: the age offset caused by a disequilibrium between atmospheric ^{14}C and the ^{14}C of water in a lake or in the global ocean.
broader term: age variable
narrower term: delta reservoir age

resistivity

definition: an electrical property that quantifies how strongly a specified material opposes the flow of an electric current.
broader term: electrical property

RGB color system

definition: reflectance that is quantified within an additive color model of the three primary colors.
broader term: reflectance
narrower term: blue intensity
narrower term: green intensity
narrower term: red intensity

rhodium

definition: a chemical element with atomic number 75.
broader term: element or single-element molecule
synonym: Re

rhodochrosite

definition: a carbonate with the formula MnCO_3 (Dana 8th ed.: 14.1.1.4; Nickel-Strunz 10th (pending) ed.: 5.AB.05; <https://www.mindat.org/min-3406.html>).
broader term: carbonate
synonym: manganese carbonate
synonym: MnCO_3

richterite

definition: an amphibole with the formula $\text{Na}_2\text{CaMg}_5\text{Si}_8\text{O}_{22}(\text{OH})_2$ (Dana 8th ed.: 66.1.3b.9; Nickel-Strunz 10th (pending) ed.: 9.DE.20; <https://www.mindat.org/min-3416.html>).
broader term: amphibole

rubidium

definition: a chemical element with atomic number 37.
broader term: element or single-element molecule
synonym: Rb

runoff

definition: the liquid water than drains from land and is the sum of surface runoff and subsurface drainage (CF: runoff_amount, runoff_flux).
broader term: hydroclimate rate
narrower term: subsurface runoff
narrower term: surface runoff

runoff coefficient

definition: the ratio of catchment runoff to catchment precipitation.

broader term: hydroclimate ratio

S-ratio

definition: a magnetic ratio using different isothermal remanent magnetization measurements, which can indicate the relative amount of magnetic minerals in a sample. Values close to 1 indicate the presence of low-coercivity minerals (magnetite and/or maghemite); values that are negative or close to 0 indicate the presence of high coercivity minerals (hematite and/or goethite).

broader term: magnetic ratios

salinity

definition: the amount of salt dissolved in a body of water.

broader term: solution property

samarium

definition: a chemical element with atomic number 62.

broader term: element or single-element molecule

synonym: Sm

sample identification

definition: sampling metadata that designates either a widely-used or lab-specific name for a sample and which can contain such attributes as core, section, and/or site.

broader term: sampling metadata

narrower term: International Geo Sample Number

sampling metadata

definition: metadata about a sample that appears in the data table, generally as part of a core-top calibration study, gridded data product, or the like.

broader term: what

narrower term: collection date

narrower term: collection elevation

narrower term: collection water depth

narrower term: latitude

narrower term: longitude

narrower term: notes

narrower term: number of samples

narrower term: sample identification

narrower term: surface geopotential

narrower term: surface type

sand

definition: the abundance or concentration of particles with a diameter between 0.0625 and 2 millimeters.

broader term: grain size class

saponite

definition: a smectite with the formula: $\text{Ca}_{0.25}(\text{Mg},\text{Fe})_3((\text{Si},\text{Al})_4\text{O}_{10})(\text{OH})_2 \cdot n\text{H}_2\text{O}$ (Dana 8th ed.: 71.3.1b.2; Nickel-Strunz 10th (pending) ed.: 9.EC.45; <https://www.mindat.org/min-3528.html>).

broader term: smectite

saturated fatty acid

definition: a fatty acid that contains no carbon to carbon multiple bonds (CHEBI: 26607).

broader term: fatty acid
narrower term: n-alkanoic acid

saturation isothermal magnetization

definition: the saturation magnetization under constant temperature conditions.
broader term: saturation magnetization

saturation isothermal remanent magnetization

definition: the maximum isothermal remanent magnetization that a material can acquire.
broader term: isothermal remanent magnetization
synonym: SIRM

saturation isothermal remanent magnetization/initial magnetization slope

definition: a magnetic ratio of the saturation isothermal remanent magnetization to the initial magnetization slope.
broader term: magnetic ratios

saturation isothermal remanent magnetization/magnetic susceptibility

definition: a magnetic ratio of the saturation isothermal remanent magnetization to the magnetic susceptibility, which can yield a qualitative measure of magnetic grain size if the magnetic mineralogy is dominantly magnetite.
broader term: magnetic ratios
synonym: SIRM/K
synonym: SIRM/MS

saturation isothermal remanent magnetization/saturation isothermal magnetization

definition: a magnetic ratio of the saturation isothermal remanent magnetization to the saturation isothermal magnetization.
broader term: magnetic ratios

saturation magnetization

definition: the maximum magnetization of a material within an applied magnetic field.
broader term: magnetic moments
synonym: Ms
narrower term: saturation isothermal magnetization

saturation remanent magnetization

definition: the remanent magnetization of a sample after removal of a magnetic field large enough to achieve saturation.
broader term: remanent magnetization
synonym: Mr
synonym: Mrs
synonym: saturation remanence

saturation remanent magnetization/saturation magnetization

definition: a magnetic ratio of the saturation remanent magnetization to the saturation magnetization, which can yield a qualitative measure of magnetic grain size.
broader term: magnetic ratios
synonym: Mrs/Ms

scandium

definition: a chemical element with atomic number 21.

broader term: element or single-element molecule
synonym: Sc

scattering

definition: an electromagnetic property that measures the amount of light in a unidirectional beam that is deflected in multiple directions by a material.

broader term: reflectance

narrower term: coherent scattering

narrower term: incoherent scattering

narrower term: incoherent scattering

sea ice cover

definition: a measure of the extent to which the ocean surface is covered by sea ice (CF: sea_ice_area, sea_ice_area_fraction).

broader term: cryospheric quantity

sea ice thickness

definition: the vertical extent of sea ice (CF: sea_ice_thickness).

broader term: cryospheric quantity

sea ice velocity

definition: the magnitude of a vector indicating sea ice motion.

broader term: circulation variable

narrower term: sea ice x velocity

narrower term: sea ice y velocity

sea ice volume

definition: the volume of sea ice per specified area (CF: sea_ice_volume).

broader term: cryospheric quantity

sea ice x velocity

definition: the magnitude of a vector component along the sea ice grid x-axis, positive with increasing x, and generally in an eastward direction (CF: sea_ice_x_velocity, eastward_sea_ice_velocity).

broader term: sea ice velocity

sea ice y velocity

definition: the magnitude of a vector component along the sea ice grid y-axis, positive with increasing y, and generally in a northward direction (CF: sea_ice_y_velocity, northward_sea_ice_velocity).

broader term: sea ice velocity

sea level

definition: a hydrographic variable that quantifies the height of the sea's surface.

broader term: hydrographic variable

narrower term: eustatic sea level

narrower term: relative sea level

sea level pressure

definition: the atmospheric pressure at sea level at a given location and time. When observed at a reporting station that is not at sea level, which is nearly all stations, it is a correction of the station pressure to sea level (CF: air_pressure_at_mean_sea_level).

broader term: circulation variable

synonym: SLP

sea salt

definition: a bulk geological material that is derived from the evaporation of sea water and that consists of sodium chloride with other trace elements.

broader term: bulk geological material

sea surface temperature

definition: the mean temperature of the ocean surface (CF: sea_surface_temperature).

broader term: sea water temperature

synonym: sst

sea water potential temperature

definition: the temperature that a parcel of sea water would have if brought adiabatically to a reference pressure, often the pressure at the ocean surface (CF: sea_water_potential_temperature).

broader term: potential temperature

sea water temperature

definition: the mean temperature at or below the surface of the ocean. Depth under the surface should be described in the "Additional Information" field (CF: sea_water_temperature).

broader term: temperature

narrower term: sea surface temperature

sea water velocity

definition: the magnitude of a vector indicating sea water motion at some level in the ocean. Depth within the ocean should be described in the "Additional Information" field.

broader term: circulation variable

narrower term: sea water x velocity

narrower term: sea water y velocity

narrower term: upward sea water velocity

sea water x velocity

definition: the magnitude of a vector component along the ocean grid x-axis, positive with increasing x, and generally in an eastward direction. Depth within the ocean should be described in the "Additional Information" field. (CF: sea_water_x_velocity, eastward_sea_water_velocity).

broader term: sea water velocity

sea water y velocity

definition: the magnitude of a vector component along the ocean grid y-axis, positive with increasing y, and generally in a northward direction. Depth within the ocean should be described in the "Additional Information" field (CF: sea_water_y_velocity, northward_sea_water_velocity).

broader term: sea water velocity

sea-salt sodium

definition: sodium that is derived from sea salt.

broader term: sodium

synonym: ss Na

synonym: ss sodium

sedimentation rate

definition: the amount of sediment deposited during a certain time span, normally expressed as a length per time (e.g., cm/yr).

broader term: formation rate

selenium

definition: a chemical element with atomic number 34.
broader term: element or single-element molecule
synonym: Se

sensible heat flux

definition: a turbulent heat flux that is the exchange of heat between the surface and the air by motion of air (CF: surface_downward_sensible_heat_flux, surface_upward_sensible_heat_flux).
broader term: turbulent flux variable

serine

definition: an amino acid with the formula C₃H₇NO₃ (CHEBI: 17822).
broader term: amino acid

serpentine

definition: a silicate mineral with the general formula D₃[Si₂O₅](OH)₄ where D is Mg, Fe, Ni, Mn, Al, Zn (<https://www.mindat.org/min-11135.html>).
broader term: silicate mineral
narrower term: cronstedtite

Shannon diversity index

definition: a diversity index that combines the number of different types and the evenness of their proportional abundances as: $-\sum(\pi \ln \pi)$ where π is the proportion of individuals belonging to a type and the summation is across all types.
broader term: diversity index
synonym: Shannon entropy
synonym: Shannon-Weaver diversity index
synonym: Shannon-Wiener diversity index

shortwave cloud radiative effect

definition: the difference in shortwave radiative flux at the top of the atmosphere resulting from the presence of clouds, that is the difference between the net downward shortwave flux assuming clear sky conditions and the net downward shortwave flux with clouds present (CF: toa_shortwave_cloud_radiative_effect).
broader term: radiative flux variable

siderite

definition: a carbonate with the formula FeCO₃ (Dana 8th ed.: 14.1.1.3; Nickel-Strunz 10th (pending) ed.: 5.AB.05; <https://www.mindat.org/min-3647.html>).
broader term: carbonate
synonym: FeCO₃
synonym: iron carbonate

sigma-t

definition: the density of seawater that is calculated using in situ temperature and salinity, but pressure equal to zero rather than the in situ pressure, and 1000 kilogram per cubic meter is subtracted (Naval Postgraduate School). Also explained as the density a parcel of seawater would have if raised to the surface.
broader term: density

sigma-theta

definition: the density of seawater that is calculated using in situ salinity and potential temperature, but pressure equal to zero rather than the in situ pressure, and 1000 kilogram per cubic meter is subtracted. Also explained as the potential density a parcel of seawater would have if raised to the surface adiabatically.
broader term: density

silicate mineral

definition: an identified mineral whose crystal structure contains SiO₄ tetrahedra.
broader term: identified mineral
narrower term: almandine
narrower term: amphibole
narrower term: andradite
narrower term: chkalovite
narrower term: chlorite
narrower term: cordierite
narrower term: cristobalite
narrower term: elpidite
narrower term: feldspar group
narrower term: gaultite
narrower term: kaolinite
narrower term: mica group
narrower term: pyrope
narrower term: pyroxene
narrower term: quartz
narrower term: serpentine
narrower term: smectite
narrower term: titanite
narrower term: zircon

silicoflagellate

definition: an identifiable organism that is a unicellular algae and that belongs to kingdom Chromista, order Dictyochales (TSN: 1802).
broader term: organism
narrower term: identified silicoflagellate
narrower term: silicoflagellate index

silicoflagellate index

definition: a measurement of silicoflagellates, such as a ratio or count, that is derived from a series of observations and that is used as an indicator or measure.
broader term: silicoflagellate
narrower term: total silicoflagellates

silicon

definition: a chemical element with atomic number 14.
broader term: element or single-element molecule
synonym: Si

silicon dioxide

definition: an inorganic compound that has the chemical formula SiO₂ (CHEBI: 30563). Note that when the material has a crystal structure, the term quartz should be used.
broader term: inorganic compound
synonym: opal

synonym: silica
synonym: SiO₂
narrower term: biogenic silica

silicon dioxide/phosphorus
definition: the ratio of silicon dioxide to phosphorus.
broader term: element or compound ratio
synonym: SiO₂/P

silicon/aluminum
definition: the elemental ratio of silicon to aluminum.
broader term: element or compound ratio
synonym: Si/Al

silicon/potassium
definition: the elemental ratio of silicon to potassium.
broader term: element or compound ratio
synonym: Si/K

silicon/strontium
definition: the elemental ratio of silicon to strontium.
broader term: element or compound ratio
synonym: Si/Sr

silicon/titanium
definition: the elemental ratio of silicon to titanium.
broader term: element or compound ratio
synonym: Si/Ti

silt
definition: the abundance or concentration of particles with a diameter between 0.004 and 0.0625 millimeters.
broader term: grain size class

silver
definition: a chemical element with atomic number 47.
broader term: element or single-element molecule
synonym: Ag

Simpson diversity index
definition: a diversity index that measures how evenly individuals are distributed across types, as $\sum \pi_i^2$ where π_i is the proportional abundance of a type and the summation is across all types.
broader term: diversity index

single isotope concentration
definition: a measurement of the concentration of a single isotope.
broader term: isotope
narrower term: ¹⁰Be
narrower term: ¹³⁷Cs
narrower term: ¹³C
narrower term: ¹⁴C
narrower term: ²¹⁰Pb

narrower term: 230Th
narrower term: 231Pa
narrower term: 232Th
narrower term: 234U
narrower term: 238U
narrower term: 32S
narrower term: 36Cl
narrower term: 3H
narrower term: 3He
narrower term: 4He
narrower term: 7Be

sitostanol

definition: a sterol that has the chemical formula C₂₉H₅₂O (CHEBI: 89400; PubChem: 241572).
broader term: sterol

sitosterol

definition: a sterol that has the chemical formula C₂₉H₅₀O (CHEBI: 27693; PubChem: 222284).
broader term: sterol

smectite

definition: a silicate mineral with the general formula A_{0.3}Al₂[Si₄O₁₀]_Z·nH₂O where A is Na⁺, K⁺, Mg²⁺, Ca²⁺ or other (<https://www.mindat.org/min-11119.html>).
broader term: silicate mineral
narrower term: saponite

snow cover

definition: a measure of the extent to which the land or sea ice surface is covered by snow (CF: surface_snow_area_fraction).
broader term: cryospheric quantity

snow depth

definition: the vertical extent of snow on the land surface or sea ice, expressed as a measured depth rather than as a liquid water equivalent (CF: surface_snow_thickness).
broader term: cryospheric quantity

snow temperature

definition: the mean temperature at or below the surface of an ice sheet or glacier. Depth under the surface should be described in the "Additional Information" field (CF: temperature_in_surface_snow).
broader term: temperature

snow volume

definition: the volume of snow covering the land surface or sea ice per given area.
broader term: cryospheric quantity

snow water equivalent

definition: the amount of water contained in snowpack, typically expressed as a depth (CF: liquid_water_content_of_surface_snow, lwe_thickness_of_surface_snow_amount).
broader term: cryospheric quantity
synonym: SWE

snowfall

definition: the hydroclimatic rate of precipitation in the form of ice crystals falling to the ground (CF: thickness_of_snowfall_amount, snowfall_amount, snowfall_flux, lwe_snowfall_rate).

broader term: precipitation

narrower term: convective snowfall

narrower term: large-scale snowfall

societal event

definition: an earth system variable that relates to the occurrence of a event within human society, often as a consequence of weather or climate.

broader term: earth system variable

sodium

definition: a chemical element with atomic number 11.

broader term: element or single-element molecule

synonym: Na

narrower term: sea-salt sodium

sodium oxide

definition: an inorganic compound that has the chemical formula Na₂O.

broader term: inorganic compound

synonym: Na₂O

sodium/calcium

definition: the elemental ratio of sodium to calcium.

broader term: element or compound ratio

synonym: Na/Ca

soil carbon

definition: the quantity of carbon contained in a soil column or layer (CF: soil_carbon_content).

broader term: ecosystem quantity

soil moisture

definition: the content of water in all phases present in a specified soil layer or vertically integrated from the bottom to the top of the soil

column (CF: lwe_thickness_of_soil_moisture_content, mass_content_of_water_in_soil, mass_content_of_water_in_soil_layer).

broader term: hydroclimate quantity

soil respiration

definition: an ecosystem process that refers to the production of carbon dioxide when soil organisms, both decomposers and producers, respire (CF: soil_respiration_carbon_flux).

broader term: ecosystem process

soil temperature

definition: the mean temperature at or below the soil surface. Depth under the surface should be described in the "Additional Information" field (CF: soil_temperature).

broader term: temperature

solar irradiance

definition: the radiation from the sun integrated over the whole electromagnetic spectrum and over the entire solar disk. The quantity applies outside the atmosphere, by default at a distance of one astronomical unit from the sun. (CF: solar_irradiance).

broader term: forcing variable
synonym: solar constant
synonym: total solar irradiance
synonym: TSI

solar modulation potential

definition: a parameter that is used to approximate the modulation of galactic cosmic rays by the sun's activity as they pass through the heliosphere.
broader term: forcing variable

solution property

definition: a chemical composition that relates to the amount of particular solutes dissolved in a solution.
broader term: chemical composition
narrower term: acidity
narrower term: alkalinity
narrower term: apparent oxygen utilization
narrower term: aragonite saturation state
narrower term: calcite saturation state
narrower term: dissociation constant
narrower term: ion balance
narrower term: salinity
narrower term: total dissolved solids

sortable silt mean grain size

definition: the mean diameter of particles in generally the 10-63 micrometer fraction of terrigenous material.
broader term: grain size mean

South Asian Summer Monsoon Index

definition: a circulation index that describes the South Asian monsoon circulation using the difference between 850 hPa and 200 hPa wind speeds averaged over the region 10-30N, 70-110 E.
broader term: mode-of-variability variable
synonym: SASM

Southern Annular Mode

definition: a circulation index that describes the low-frequency variability of the Southern Hemisphere extratropics and that is calculated from the difference of zonal mean sea level pressure between 40S and 65S latitude.
broader term: mode-of-variability variable
synonym: AAO
synonym: Antarctic oscillation
synonym: SAM

Southern Oscillation Index

definition: an index of the El Nino Southern Oscillation that is calculated as the difference in atmospheric pressure at sea level between Tahiti and Darwin (Australia).
broader term: El Nino Southern Oscillation Index
synonym: SOI

specific humidity

definition: a hydroclimate ratio that is the mass fraction of water vapor in air. Height within the atmosphere at which the measurement applies should be described in the "Additional Information" field (CF: specific_humidity, surface_specific_humidity).
broader term: hydroclimate ratio

sponge

definition: an identifiable organism that belongs to the kingdom Animalia, phylum Porifera (TSN: 46861).
broader term: organism
narrower term: identified sponge
narrower term: sponge index

sponge index

definition: a measurement of sponges, such as a ratio or count, that is derived from a series of observations and that is used as an indicator or measure.
broader term: sponge
narrower term: total sponge spicules

standardized precipitation evapotranspiration index

definition: a hydroclimate index that is based on the cumulative probability of a given rainfall event at a particular station in combination with the role of temperature on evapotranspiration.
broader term: hydroclimate index
synonym: SPEI

standardized precipitation index

definition: a hydroclimate index that is based on the cumulative probability of a given rainfall event at a particular station.
broader term: hydroclimate index
synonym: SPI

statistical variable

definition: a variable that is derived through the analysis of numerical data.
broader term: what
narrower term: hypothesis testing variable
narrower term: multivariate eigenvector-based variable
narrower term: proxy composite

sterol

definition: an organic hydroxy compound that has a hydroxyl group at the 3-position of the A-ring (CHEBI: 15889).
broader term: organic hydroxy compound
narrower term: brassicasterol
narrower term: cholestanol
narrower term: cholesterol
narrower term: coprostanol
narrower term: dinosterol
narrower term: epicoprostanol
narrower term: sitostanol
narrower term: sitosterol
narrower term: taraxerol

storm track

definition: a circulation variable that quantifies aspects of storms that travel in relatively narrow zones driven by the prevailing winds, including their location or their strength.
broader term: storm variable

storm variable

definition: a circulation variable that relates to the frequency or strength of tropical or extratropical storms.
broader term: circulation variable
narrower term: storm track
narrower term: tropical cyclone

streamflow

definition: the flow of water in streams, rivers, and other channels (CF: water_volume_transport_in_river_channel, water_volume_transport_into_sea_water_from_rivers, water_flux_into_sea_water_from_rivers).
broader term: hydroclimate rate

strontium

definition: a chemical element with atomic number 38.
broader term: element or single-element molecule
synonym: Sr

strontium oxide

definition: an inorganic compound that has the chemical formula SrO.
broader term: inorganic compound
synonym: SrO
synonym: strontia

strontium/calcium

definition: the elemental ratio of strontium to calcium.
broader term: element or compound ratio
synonym: Sr/Ca

strontium/potassium

definition: the elemental ratio of strontium to potassium.
broader term: element or compound ratio
synonym: Sr/K

strontium/titanium

definition: the elemental ratio of strontium to titanium.
broader term: element or compound ratio
synonym: Sr/Ti

subsurface runoff

definition: the runoff that drains through the soil column (CF: subsurface_runoff_amount, subsurface_runoff_flux).
broader term: runoff

sulfate

definition: an inorganic compound that has the formula SO₄²⁻.
broader term: inorganic compound
synonym: SO₄²⁻
synonym: sulphate

narrower term: non-sea-salt sulfate

sulfate mineral

definition: an identified mineral with the sulfate radical SO₄.

broader term: identified mineral

narrower term: amarillite

narrower term: anglesite

narrower term: blödite

narrower term: butlerite

narrower term: caracolite

narrower term: glauberite

narrower term: gypsum

narrower term: letovicite

narrower term: mercallite

narrower term: thenardite

sulfide mineral

definition: an identified mineral characterized by the linkage of sulfur with a metal.

broader term: identified mineral

narrower term: chalcocite

narrower term: covellite

narrower term: geocronite

narrower term: proustite

narrower term: pyrite

sulfur

definition: a chemical element with atomic number 16.

broader term: element or single-element molecule

synonym: S

narrower term: non-sea-salt sulfur

sulfur/calcium

definition: the elemental ratio of sulfur to calcium.

broader term: element or compound ratio

synonym: S/Ca

sulfur/organic carbon

definition: the elemental ratio of sulfur to organic carbon.

broader term: element or compound ratio

synonym: S/organic C

sulfur/potassium

definition: the elemental ratio of sulfur to potassium.

broader term: element or compound ratio

synonym: S/K

sulfur/titanium

definition: the elemental ratio of sulfur to titanium.

broader term: element or compound ratio

synonym: S/Ti

sulfuric acid

definition: an inorganic compound that has the chemical formula H₂SO₄ (CHEBI: 26836).
broader term: inorganic compound
synonym: H₂SO₄
synonym: sulphuric acid

sunspot number

definition: an index of the activity of the sun, measured through counts of individual and grouped sunspots on the visible disk of the sun.
broader term: forcing variable

surface air temperature

definition: the mean temperature of air generally 1.25 to 2 meters above the earth surface.
broader term: air temperature

surface downward x stress

definition: a downward flux of momentum in the grid x direction, generally eastward, at the lower boundary of the atmosphere, which accelerates the lower medium in the grid x direction and the upper medium in the negative grid x direction (CF: surface_downward_x_stress, downward_x_stress_at_sea_ice_base, surface_downward_eastward_stress, downward_eastward_stress_at_sea_ice_base).
broader term: surface stress

surface downward y stress

definition: a downward flux of momentum in the grid y direction, generally northward, at the lower boundary of the atmosphere, which accelerates the lower medium in the grid y direction and the upper medium in the negative grid y direction (CF: surface_downward_y_stress, downward_y_stress_at_sea_ice_base, surface_downward_northward_stress, downward_northward_stress_at_sea_ice_base).
broader term: surface stress

surface downwelling clear-sky longwave radiation

definition: the amount of longwave (thermal) radiation from above that is measured at the lower boundary of the atmosphere under the hypothetical condition of a cloud-free sky (CF: surface_downwelling_longwave_flux_in_air_assuming_clear_sky).
broader term: radiative flux variable

surface downwelling clear-sky shortwave radiation

definition: the amount of shortwave (solar) radiation from above that is measured at the lower boundary of the atmosphere under the hypothetical condition of a cloud-free sky (CF: surface_downwelling_shortwave_flux_in_air_assuming_clear_sky).
broader term: radiative flux variable

surface downwelling longwave radiation

definition: the amount of longwave (thermal) radiation from above that is measured at the lower boundary of the atmosphere (CF: surface_downwelling_longwave_flux_in_air).
broader term: radiative flux variable

surface downwelling shortwave radiation

definition: the amount of shortwave (solar) radiation from above that is measured at the lower boundary of the atmosphere (CF: surface_downwelling_shortwave_flux_in_air).
broader term: radiative flux variable

surface geopotential

definition: the sum of the specific gravitational potential energy relative to the geoid and the specific centripetal potential energy. This quantity yields surface elevation when divided by g (CF: surface_geopotential).
broader term: sampling metadata

surface heat flux

definition: the sum of all heat fluxes at the lower boundary of the atmosphere, including radiative, latent, and sensible heat fluxes (CF: surface_downward_heat_flux_in_air, surface_downward_heat_flux_in_sea_water, surface_downward_heat_flux_in_snow, surface_upward_heat_flux_in_air).
broader term: energy flux variable

surface net downward clear-sky longwave radiation

definition: the difference between longwave radiation from above (downwelling) and longwave radiation from below (upwelling) that is measured at the lower boundary of the atmosphere under the hypothetical condition of a cloud-free sky (CF: surface_net_downward_longwave_flux_assuming_clear_sky).
broader term: radiative flux variable

surface net downward clear-sky shortwave radiation

definition: the difference between shortwave radiation from above (downwelling) and shortwave radiation from below (upwelling) that is measured at the lower boundary of the atmosphere under the hypothetical condition of a cloud-free sky (CF: surface_net_downward_shortwave_flux_assuming_clear_sky).
broader term: radiative flux variable

surface net downward longwave radiation

definition: the difference between longwave radiation from above (downwelling) and longwave radiation from below (upwelling) that is measured at the lower boundary of the atmosphere (CF: surface_net_downward_longwave_flux).
broader term: radiative flux variable

surface net downward radiation

definition: the difference between shortwave+longwave radiation from above (downwelling) and shortwave+longwave radiation from below (upwelling) that is measured at the lower boundary of the atmosphere (CF: surface_net_downward_radiative_flux).
broader term: radiative flux variable

surface net downward shortwave radiation

definition: the difference between shortwave radiation from above (downwelling) and shortwave radiation from below (upwelling) that is measured at the lower boundary of the atmosphere (CF: surface_net_downward_shortwave_flux).
broader term: radiative flux variable

surface net upward clear-sky longwave radiation

definition: the difference between longwave radiation from below (upwelling) and longwave radiation from above (downwelling) that is measured at the lower boundary of the atmosphere under the hypothetical condition of a cloud-free sky (CF: surface_net_upward_longwave_flux_assuming_clear_sky).
broader term: radiative flux variable

surface net upward longwave radiation

definition: the difference between longwave radiation from below (upwelling) and longwave radiation from above (downwelling) that is measured at the lower boundary of the atmosphere (CF: surface_net_upward_longwave_flux).

broader term: radiative flux variable

surface pressure

definition: the atmospheric pressure at the earth's surface at a given location and time (CF: surface_air_pressure).

broader term: circulation variable

surface runoff

definition: the runoff that drains across the land surface (CF: surface_runoff_amount, surface_runoff_flux).

broader term: runoff

surface stress

definition: a downward flux of momentum at the lower boundary of the atmosphere.

broader term: circulation variable

narrower term: surface downward x stress

narrower term: surface downward y stress

surface temperature

definition: the mean temperature at the earth surface. This term can refer to any of several specific surface terms (e.g., sea surface, land surface, air surface) and is particularly useful for gridded products that integrate more than one of these surface types (CF: surface_temperature).

broader term: temperature

surface type

definition: sampling metadata that is the prescribed type (e.g., land, ocean, ice) at the bottom of the atmospheric column.

broader term: sampling metadata

surface upwelling clear-sky longwave radiation

definition: the amount of longwave (thermal) radiation from below that is measured at the lower boundary of the atmosphere under the hypothetical condition of a cloud-free sky (CF:

surface_upwelling_longwave_flux_in_air_assuming_clear_sky).

broader term: radiative flux variable

surface upwelling clear-sky shortwave radiation

definition: the amount of shortwave (solar) radiation from below that is measured at the lower boundary of the atmosphere under the hypothetical condition of a cloud-free sky (CF:

surface_upwelling_shortwave_flux_in_air_assuming_clear_sky).

broader term: radiative flux variable

surface upwelling longwave radiation

definition: the amount of longwave (thermal) radiation from below that is measured at the lower boundary of the atmosphere (CF: surface_upwelling_longwave_flux_in_air).

broader term: radiative flux variable

surface upwelling shortwave radiation

definition: the amount of shortwave (solar) radiation from below that is measured at the lower boundary of the atmosphere (CF: surface_upwelling_shortwave_flux_in_air).

broader term: radiative flux variable

t-statistic

definition: a hypothesis testing variable that is the ratio of the departure of the estimated value of a parameter from its hypothesized value relative to its standard error (Wikipedia).
broader term: hypothesis testing variable

tantalum

definition: a chemical element with atomic number 73.
broader term: element or single-element molecule
synonym: Ta

taraxerol

definition: a sterol that has the chemical formula C₃₀H₅₀O (CHEBI: 9402).
broader term: sterol

technetium

definition: a chemical element with atomic number 43.
broader term: element or single-element molecule
synonym: Tc

temperature

definition: the mean temperature over a particular time period.
broader term: temperature variable
narrower term: air temperature
narrower term: ice temperature
narrower term: lake water temperature
narrower term: land temperature
narrower term: sea water temperature
narrower term: snow temperature
narrower term: soil temperature
narrower term: surface temperature

temperature index

definition: a temperature variable that combines temperature information to yield an indicator of hot or cold conditions.
broader term: temperature variable
narrower term: growing degree days
narrower term: non-freezing days

temperature tendency

definition: a temperature variable that quantifies the change in temperature per time (CF: tendency_of_air_temperature, tendency_of_sea_water_temperature).
broader term: temperature variable

temperature variable

definition: an earth system variable that quantifies the degree or intensity of heat present in a material.
broader term: earth system variable
narrower term: maximum temperature
narrower term: minimum temperature
narrower term: potential temperature
narrower term: temperature
narrower term: temperature index
narrower term: temperature tendency

terbium

definition: a chemical element with atomic number 65.
broader term: element or single-element molecule
synonym: Tb

terrestrial to aquatic ratio

definition: an organic compound of n-alkanes that is defined as $(C_{27}+C_{29}+C_{31})/(C_{17}+C_{19}+C_{21})$ by Bourbonniere and Meyers 1997 to reflect the ratio of higher-order terrestrial plant material to aquatic plant material derived from algae, photosynthetic bacteria, and submerged and emergent aquatics.
broader term: organic compound index
synonym: TAR

testate amoeba

definition: an identifiable organism that is an ameboid protist with a test and that belongs to the kingdom Protozoa. Traditionally, those species that form large networks of anastomosing pseudopodia, despite of some of them having tests e.g. Foraminifera, are not counted amongst testate amoebae (Wikipedia).
broader term: organism
narrower term: identified testate amoeba
narrower term: testate amoeba index

testate amoeba index

definition: a measurement of testate amoebae, such as a ratio or count, that is derived from a series of observations and that is used as an indicator or measure.
broader term: testate amoeba
narrower term: total testate amoebae

tetraether index of 86 carbon atoms

definition: an organic compound index that is calculated as the ratio of different isoprenoidal glycerol dialkyl glycerol tetraethers, eg Schouten et al. 2002.
broader term: organic compound index
synonym: TEX86

thallium

definition: a chemical element with atomic number 81.
broader term: element or single-element molecule
synonym: Tl

thenardite

definition: a sulfate mineral with the formula Na_2SO_4 (Dana 8th ed.: 28.2.3.1; Nickel-Strunz 10th (pending) ed.: 7.AC.25; <https://www.mindat.org/min-3935.html>).
broader term: sulfate mineral

thinning function

definition: a formation property that quantifies the thinning of layers in a glacier or ice sheet related to ice flow and deformation.
broader term: formation property

thorium

definition: a chemical element with atomic number 90.
broader term: element or single-element molecule
synonym: Th

thorium/uranium

definition: the elemental ratio of thorium to uranium.
broader term: element or compound ratio
synonym: Th/U

threonine

definition: an amino acid with the formula C₄H₉NO₃ (CHEBI: 26986).
broader term: amino acid

thulium

definition: a chemical element with atomic number 69.
broader term: element or single-element molecule
synonym: Tm

tin

definition: a chemical element with atomic number 50.
broader term: element or single-element molecule
synonym: Sn

tin/calcium

definition: the elemental ratio of tin to calcium.
broader term: element or compound ratio
synonym: Sn/Ca

tissue

definition: a biological material that consists of an ensemble of similar cells from the same origin that together carry out a similar function.
broader term: biological material
narrower term: wood

titanite

definition: a silicate mineral with the formula CaTiSiO₅ (Dana 8th ed.: 52.4.3.1; Nickel-Strunz 10th (pending) ed.: 9.AG.15; <https://www.mindat.org/min-3977.html>).
broader term: silicate mineral

titanium

definition: a chemical element with atomic number 22.
broader term: element or single-element molecule
synonym: Ti

titanium dioxide

definition: an inorganic compound that has the chemical formula TiO₂ (CHEBI: 32234).
broader term: titanium oxide
synonym: TiO₂
synonym: titania
synonym: titanium(IV) oxide

titanium oxide

definition: an inorganic compound that is any of the oxides of titanium, containing oxygen and titanium atoms.
broader term: inorganic compound
synonym: TiO

narrower term: titanium dioxide

titanium/aluminum

definition: the elemental ratio of titanium to aluminum.
broader term: element or compound ratio
synonym: Ti/Al

titanium/calcium

definition: the elemental ratio of titanium to calcium.
broader term: element or compound ratio
synonym: Ti/Ca

titanium/potassium

definition: the elemental ratio of titanium to potassium.
broader term: element or compound ratio
synonym: Ti/K

top-of-atmosphere net downward clear-sky longwave radiation

definition: the difference between longwave radiation from above (downwelling) and longwave radiation from below (upwelling) that is measured at the top of the atmosphere under the hypothetical condition of a cloud-free sky (CF: `toa_net_downward_longwave_flux_assuming_clear_sky`).
broader term: radiative flux variable

top-of-atmosphere net downward clear-sky shortwave radiation

definition: the difference between shortwave radiation from above (downwelling) and shortwave radiation from below (upwelling) that is measured at the top of the atmosphere under the hypothetical condition of a cloud-free sky (CF: `toa_net_downward_shortwave_flux_assuming_clear_sky`).
broader term: radiative flux variable

top-of-atmosphere net downward longwave radiation

definition: the difference between longwave radiation from above (downwelling) and longwave radiation from below (upwelling) that is measured at the top of the atmosphere (CF: `toa_net_downward_longwave_flux_assuming_clear_sky`).
broader term: radiative flux variable

top-of-atmosphere net downward radiation

definition: the difference between shortwave+longwave radiation from above (downwelling) and shortwave+longwave radiation from below (upwelling) that is measured at the top of the atmosphere (CF: `toa_net_downward_radiative_flux`).
broader term: radiative flux variable

top-of-atmosphere net downward shortwave radiation

definition: the difference between shortwave radiation from above (downwelling) and shortwave radiation from below (upwelling) that is measured at the top of the atmosphere (CF: `toa_net_downward_shortwave_flux`).
broader term: radiative flux variable

top-of-atmosphere net upward clear-sky longwave radiation

definition: the difference between longwave radiation from below (upwelling) and longwave radiation from above (downwelling) that is measured at the top of the atmosphere under the hypothetical condition of a cloud-free sky (CF: `toa_net_upward_longwave_flux_assuming_clear_sky`).
broader term: radiative flux variable

top-of-atmosphere net upward longwave radiation

definition: the difference between longwave radiation from below (upwelling) and longwave radiation from above (downwelling) that is measured at the top of the atmosphere (CF: toa_net_upward_longwave_flux).
broader term: radiative flux variable

top-of-atmosphere net upward shortwave radiation

definition: the difference between shortwave radiation from below (upwelling) and shortwave radiation from above (downwelling) that is measured at the top of the atmosphere (CF: toa_net_upward_shortwave_flux).
broader term: radiative flux variable

top-of-atmosphere outgoing clear-sky longwave radiation

definition: the amount of longwave (thermal) radiation from below that is measured at the top of the atmosphere under the hypothetical condition of a cloud-free sky (CF: toa_outgoing_longwave_flux_assuming_clear_sky).
broader term: radiative flux variable

top-of-atmosphere outgoing clear-sky shortwave radiation

definition: the amount of shortwave (solar) radiation from below that is measured at the top of the atmosphere under the hypothetical condition of a cloud-free sky (CF: toa_outgoing_shortwave_flux_assuming_clear_sky).
broader term: radiative flux variable

top-of-atmosphere outgoing longwave radiation

definition: the amount of longwave (thermal) radiation from below that is measured at the top of the atmosphere (CF: toa_outgoing_longwave_flux).
broader term: radiative flux variable

top-of-atmosphere outgoing shortwave radiation

definition: the amount of shortwave (solar) radiation from below that is measured at the top of the atmosphere (CF: toa_outgoing_shortwave_flux).
broader term: radiative flux variable

total acidiphilic diatoms

definition: the total count or percentage of diatoms in an assemblage tolerant of low pH environments.
broader term: diatom tolerance-based index

total aerophilic diatoms

definition: the total count or percentage of diatoms in an assemblage whose habitats include air, shorelines, and wet walls.
broader term: diatom habitat-based index

total agglutinated foraminifers

definition: the total count or percentage of foraminifers in an assemblage that have a test constructed from existing sedimentary grains as opposed to secreted by the organism.
broader term: foraminiferal index

total alkaliphilic diatoms

definition: the total count or percentage of diatoms in an assemblage tolerant of high pH environments.
broader term: diatom tolerance-based index

total araphid diatoms

definition: the total count or percentage of diatoms in an assemblage that meet the following morphological criteria according to "Diatoms of the United States": valves with bilateral symmetry (symmetric about a line); cells lack a raphe system and lack significant motility; rimoportulae (labiate process) may be present.

broader term: total pennate diatoms

total asymmetrical biraphid diatoms

definition: the total count or percentage of diatoms in an assemblage that meet the following morphological criteria according to Diatoms of the United States: Valves asymmetrical to apical axis OR asymmetrical to the transapical axis, or both; Raphe system well developed; Some genera possess apical porefields that secrete mucilaginous stalks; Other genera secrete mucilaginous tubes.

broader term: total raphid diatoms

total benthic diatoms

definition: the total count or percentage of diatoms in an assemblage who live free on or in sediments (motile) or attached to substrata (sessile).

broader term: diatom habitat-based index

synonym: epontic diatoms

synonym: periphytic diatoms

narrower term: total epilithic diatoms

narrower term: total epipelagic diatoms

narrower term: total epiphytic diatoms

narrower term: total epipsammic diatoms

narrower term: total epizoic diatoms

narrower term: total tychoplanktic diatoms

total benthic foraminifers

definition: the total count or percentage of foraminifers in an assemblage who live free on or in sediments or attached to substrata.

broader term: foraminiferal index

total calcareous foraminifers

definition: the total count or percentage of foraminifers in an assemblage that secrete a rigid calcite or aragonite shell.

broader term: foraminiferal index

total calcareous nannofossils

definition: a coccolithophore index that is the total number of calcareous nannofossils, primarily coccoliths but additionally small calcite nannoliths of uncertain origin, in a sample.

broader term: coccolithophore index

total centric diatoms

definition: the total count or percentage of diatoms in an assemblage that meet the following morphological criteria according to "Diatoms of the United States": valves with radial symmetry (symmetric about a point); cells lack a raphe system and lack significant motility; cells may possess fultoportulae (strutted processes) and rimoportulae (labiate processes); sexual reproduction is oogamous.

broader term: diatom morphology-based index

total chrysophyte cysts

definition: the total count of siliceous stomatocysts (resistant spores) of Chrysophyte algae.

broader term: chrysophyte

total chrysophyte scales

definition: the total count of siliceous scales (produced by vegetative planktonic cells) of chrysophyte algae.

broader term: chrysophyte

total coccoliths

definition: a coccolithophore index that is the total number of coccoliths, the individual plates of calcium carbonate produced by coccolithophores, in a sample.

broader term: coccolithophore index

total cold water diatoms

definition: the total count or percentage of diatoms in an assemblage tolerant of cold water.

broader term: diatom tolerance-based index

synonym: dicothermal diatoms

total copiotrophic diatoms

definition: the total count or percentage of diatoms in an assemblage tolerant of plentiful nutrients, eg, as occur in upwelling zones.

broader term: diatom tolerance-based index

total deep water diatoms

definition: the total count or percentage of diatoms in an assemblage living in deep water environments characterized by, eg, low turbulence and low light levels.

broader term: diatom tolerance-based index

total diatoms

definition: a diatom index that is the total number of diatoms in a sample.

broader term: diatom index

total dinocysts

definition: the total count of dinocysts in a sample.

broader term: dinoflagellate index

total dissolved solids

definition: a solution concentration that is the combined content of all inorganic and organic substances contained in a liquid in molecular, ionized or micro-granular (colloidal sol) suspended form (Wikipedia).

broader term: solution property

total edaphic diatoms

definition: the total count or percentage of diatoms in an assemblage whose habitats include soil.

broader term: diatom habitat-based index

total ehippia

definition: The total count of eggs of cladocerans in a sample.

broader term: cladoceran index

total epilithic diatoms

definition: the total count or percentage of benthic diatoms in an assemblage whose habitat is attached to rocks.

broader term: total benthic diatoms

total epipelagic diatoms

definition: the total count or percentage of benthic diatoms in an assemblage whose habitat is attached to mud.

broader term: total benthic diatoms

total epiphytic diatoms

definition: the total count or percentage of benthic diatoms in an assemblage whose habitat is attached to plants.

broader term: total benthic diatoms

total epipsammic diatoms

definition: the total count or percentage of benthic diatoms in an assemblage whose habitat is attached to sand.

broader term: total benthic diatoms

total epithemioid diatoms

definition: the total count or percentage of diatoms in an assemblage that meet the following morphological criteria according to Diatoms of the United States: Valves with bilateral symmetry (symmetric about a line); Valves asymmetrical to apical axis; Raphe system well developed and enclosed within a canal; Raphe system positioned near the valve margin.

broader term: total raphid diatoms

total epizoic diatoms

definition: the total count or percentage of benthic diatoms in an assemblage whose habitat is attached to a biotic host.

broader term: total benthic diatoms

total eunotioid diatoms

definition: the total count or percentage of diatoms in an assemblage that meet the following morphological criteria according to Diatoms of the United States: Valves with bilateral symmetry (symmetric about a line); Valves often asymmetrical to the apical axis; Raphe system is short and provides weak motility; Raphe located on valve mantle and face; Cells may possess 2 or more rimoportulae (labiate processes).

broader term: total raphid diatoms

total foraminifers

definition: the total count of foraminifers in a sample.

broader term: foraminiferal index

total freshwater diatoms

definition: the total count or percentage of diatoms in an assemblage that are present in freshwater environments.

broader term: diatom tolerance-based index

total gastropods

definition: the count of total gastropod shells in a sample.

broader term: gastropod index

total head capsules

definition: the count of total midge head capsules present in a sample.

broader term: midge index

total ice diatoms

definition: the total count or percentage of diatoms in an assemblage whose habitat is near sea ice.
broader term: diatom habitat-based index

total meroplanktic diatoms

definition: the total count or percentage of diatoms in an assemblage that spend some of their lifecycle resting on the sediment and some floating in the water column.
broader term: diatom habitat-based index

total monoraphid diatoms

definition: the total count or percentage of diatoms in an assemblage that meet the following morphological criteria according to Diatoms of the United States: Valves with bilateral symmetry (symmetric about a line); Raphe system present on one valve (raphe valve); Raphe system absent on one valve (rapheless valve); Heterovalvar ornamentation.
broader term: total raphid diatoms

total neritic diatoms

definition: the total count or percentage of planktic or benthic diatoms in an assemblage whose habitat is the marine near-coastal zone.
broader term: diatom habitat-based index

total nitzschioid diatoms

definition: the total count or percentage of diatoms in an assemblage that meet the following morphological criteria according to Diatoms of the United States: Valves with bilateral symmetry (symmetric about a line); Valves usually symmetrical to both apical and transapical axes; Raphid system well developed, and positioned near the valve margin; Raphe is enclosed within a canal and may be raised onto a keel.
broader term: total raphid diatoms

total oligotrophic diatoms

definition: the total count or percentage of diatoms in an assemblage that are present in environments with low nutrient levels.
broader term: diatom tolerance-based index

total ostracods

definition: the count of total ostracod valves in a sample.
broader term: ostracod index

total pelagic diatoms

definition: the total count or percentage of planktic diatoms in an assemblage whose habitat is the open ocean, away from coastal zones.
broader term: total planktic diatoms

total pennate diatoms

definition: the total count or percentage of diatoms in an assemblage that are bilaterally, not radially, symmetric.
broader term: diatom morphology-based index
narrower term: total araphid diatoms
narrower term: total raphid diatoms

total planktic diatoms

definition: the total count or percentage of diatoms in an assemblage whose habitat is floating in the water column.

broader term: diatom habitat-based index

narrower term: total pelagic diatoms

total planktic foraminifers

definition: the total count or percentage of foraminifers in an assemblage whose habitat is floating in the water column.

broader term: foraminiferal index

total radiolarians

definition: the count of total radiolarians in a sample.

broader term: radiolarian index

total raphid diatoms

definition: the total count or percentage of diatoms in an assemblage that are bilaterally symmetric and that possess a raphe (longitudinal groove in the valve).

broader term: total pennate diatoms

narrower term: total asymmetrical biraphid diatoms

narrower term: total epithemioid diatoms

narrower term: total eunotioid diatoms

narrower term: total monoraphid diatoms

narrower term: total nitzschioid diatoms

narrower term: total surirelloid diatoms

narrower term: total symmetrical biraphid diatoms

total rheophilic diatoms

definition: the total count or percentage of diatoms in an assemblage whose habitats include flowing water and waves.

broader term: diatom habitat-based index

total ring density

definition: the density of the wood within one annual ring from a tree.

broader term: density

total ring width

definition: the width of an annual radial growth increment in a tree.

broader term: length

total saline diatoms

definition: the total count or percentage of diatoms in an assemblage tolerant of saline conditions. Any sub-category of salinity tolerance, eg hyposaline or hypersaline, should be indicated in the "Additional Information" free-text field.

broader term: diatom tolerance-based index

synonym: hypersaline diatoms

synonym: hyposaline diatoms

synonym: mesosaline diatoms

synonym: subsaline diatoms

total salinity indifferent diatoms

definition: the total count or percentage of diatoms in an assemblage that may occur in either saline or fresh environments.

broader term: diatom tolerance-based index

total shallow water diatoms

definition: the total count or percentage of diatoms in an assemblage living in shallow water environments characterized by, eg, high turbulence and high light levels.

broader term: diatom tolerance-based index

total silicoflagellates

definition: the count of total silicoflagellates in a sample.

broader term: silicoflagellate index

total species

definition: a diversity index that is a count of the total number of species in a sample.

broader term: diversity index

total sponge spicules

definition: the total count of spicules, structural elements of sponges.

broader term: sponge index

total surirelloid diatoms

definition: the total count or percentage of diatoms in an assemblage that meet the following morphological criteria according to Diatoms of the United States: Valves with bilateral symmetry (symmetric about a line); Raphe system extremely well developed and enclosed within a canal; Raphe positioned around the entire valve margin and raised onto a keel.

broader term: total raphid diatoms

total symmetrical biraphid diatoms

definition: the total count or percentage of diatoms in an assemblage that meet the following morphological criteria according to Diatoms of the United States: Valves with bilateral symmetry (symmetric about a line); Valves symmetrical to both apical and transapical axis; Raphe system well developed and cells may be highly motile; This group has the greatest diversity among the freshwater diatoms.

broader term: total raphid diatoms

total testate amoebae

definition: the total count of testate amoebae in a sample.

broader term: testate amoeba index

total tychoplanktic diatoms

definition: the total count or percentage of benthic diatoms in an assemblage that can often be found resuspended in the water column.

broader term: total benthic diatoms

total warm water diatoms

definition: the total count or percentage of diatoms in an assemblage tolerant of warm water.

broader term: diatom tolerance-based index

tracheid diameter

definition: the diameter of elongated cells in the xylem of vascular plants.

broader term: diameter

narrower term: earlywood tracheid diameter

transmittance

definition: an electromagnetic property that measures the amount of light transmitted by a material.

broader term: electromagnetic property

transpiration

definition: the hydroclimatic rate of water transfer from the land to the atmosphere from transpiration from plants (CF: transpiration_amount, transpiration_flux).

broader term: hydroclimate rate

tree demographic and fire event code

definition: event layers that relate to tree growth or wildfires.

broader term: event layer

tree demographic and injury and fire event code

definition: event layers that relate to tree growth, tree injury, or wildfire.

broader term: event layer

tree ring standardized growth index

definition: a proxy composite that is generated from multiple tree ring records, generally by statistically removing trends specific to individual trees and by combining into one index.

broader term: proxy composite

Trilobatus sacculifer

definition: a particular species of the genus Trilobatus (urn:lsid:marinespecies.org:taxname:1026286).

broader term: identified foraminifer

narrower term: Trilobatus sacculifer with sac

narrower term: Trilobatus sacculifer without sac

Trilobatus sacculifer with sac

definition: a morphotype of Trilobatus sacculifer that has a sac-like terminal chamber.

broader term: Trilobatus sacculifer

Trilobatus sacculifer without sac

definition: a morphotype of Trilobatus sacculifer that lacks a sac-like terminal chamber.

broader term: Trilobatus sacculifer

trophic position index

definition: an ecosystem variable that uses amino-acid-specific stable nitrogen isotopic compositions to measure trophic structure within an ecosystem.

broader term: ecosystem index

tropical cyclone

definition: a circulation variable that quantifies the occurrence of rotating, organized systems of clouds and thunderstorms that originate over tropical or subtropical waters and have a closed low-level circulation.

broader term: storm variable

synonym: hurricane

synonym: typhoon

tungsten

definition: a chemical element with atomic number 74.
broader term: element or single-element molecule
synonym: W

turbulent flux variable

definition: an energy flux that is largely driven by the wind.
broader term: energy flux variable
narrower term: latent heat flux
narrower term: sensible heat flux

tyrosine

definition: an amino acid with the formula C₉H₁₁NO₃ (CHEBI: 18186).
broader term: amino acid

unsaturated fatty acid

definition: a fatty acid that contains at least one carbon to carbon double or triple bond (CHEBI: 27208).
broader term: fatty acid

upward ice sheet velocity

definition: the velocity of ice in the vertical direction at some depth, with positive indicating upward movement. Depth within the ice sheet should be described in the "Additional Information" field.
broader term: ice sheet velocity

upward sea water velocity

definition: the velocity of sea water in the vertical direction at some depth, with positive indicating upward movement. Depth within the ocean should be described in the "Additional Information" field (CF: upward_sea_water_velocity).
broader term: sea water velocity

Upwelling Index

definition: a circulation index that is a measure of the volume of water upwelling in the ocean.
broader term: mode-of-variability variable

uranium

definition: a chemical element with atomic number 92.
broader term: element or single-element molecule
synonym: U

uranium/calcium

definition: the elemental ratio of uranium to calcium.
broader term: element or compound ratio
synonym: U/Ca

uranium/thorium

definition: the elemental ratio of uranium to thorium.
broader term: element or compound ratio
synonym: U/Th

Uvigerina peregrina

definition: a particular species of the genus *Uvigerina* (TSN: 45437; urn:lsid:marinespecies.org:taxname:113773).
broader term: identified foraminifer

valine

definition: an amino acid with the formula C₅H₁₁NO₂ (CHEBI: 27266).

broader term: amino acid

value

definition: a dimension of the Munsell color system that represents lightness, with zero being black and 10 being white.

broader term: Munsell color system

vanadium

definition: a chemical element with atomic number 23.

broader term: element or single-element molecule

synonym: V

vanadium/aluminum

definition: the elemental ratio of vanadium to aluminum.

broader term: element or compound ratio

synonym: V/Al

vanillic acid

definition: an aromatic compound that has the formula C₈H₈O₄ (CHEBI: 30816).

broader term: aromatic compound

varve thickness

definition: the thickness of a sublayer of or an entire annually-resolved varve in a sediment sequence. To indicate the thickness of a varve sublayer (e.g., varve organic layer thickness), describe the sublayer in the "Additional Information" field.

broader term: length

vegetation carbon

definition: the quantity of carbon contained in plants, including grasses, shrubs, and trees (CF: vegetation_carbon_content).

broader term: ecosystem quantity

vegetation change index

definition: an organic compound index that measures changes in the composition of terrestrial vegetation and that is calculated from n-alkanes as C₃₁/(C₂₉+C₃₁).

broader term: organic compound index

synonym: Norm31

ventilation age

definition: a circulation variable that measures the time elapsed since ocean water was last in contact with the atmosphere (CF: sea_water_age_since_surface_contact).

broader term: circulation variable

vertical pressure velocity

definition: the upward component of air velocity when air pressure is being used as the vertical coordinate. If the vertical air velocity is upwards, it is negative when expressed as a tendency of air pressure; downwards is positive. (CF: Lagrangian_tendency_of_air_pressure; vertical_air_velocity_expressed_as_tendency_of_pressure).

broader term: circulation variable

synonym: omega

virtual salt flux

definition: a virtual (computational) flux of salt applied to fixed-volume ocean models to account for the salinification or dilution effects that precipitation, evaporation, river outflow, sea-ice etc can have through changing the volume of the ocean surface layer (CF: virtual_salt_flux_into_sea_water).

broader term: hydroclimate rate

vivianite

definition: a phosphate mineral with the formula $(\text{Fe}^{2+})_3(\text{PO}_4)_2 \cdot 8\text{H}_2\text{O}$ (Dana 8th ed.: 40.3.6.1; Nickel-Strunz 10th (pending) ed.: 8.CE.40; <https://www.mindat.org/min-4194.html>).

broader term: phosphate mineral

volcanic forcing

definition: a forcing variable that quantifies the radiative forcing, often expressed in watt per square meter, of volcanism.

broader term: forcing variable

volcanic material

definition: mineral matter that consists of particles that originated from a volcano.

broader term: mineral matter

volcanic sulfate

definition: a forcing variable that quantifies the atmospheric loading of sulfate from volcanism.

broader term: forcing variable

volume

definition: a physical property that is a measure of the three-dimensional space filled by a sample.

broader term: physical property

volume magnetic susceptibility

definition: the magnetic susceptibility of a material per unit volume. This is a dimensionless quantity that relates magnetization per unit volume to the strength of the magnetic field, which both have units of ampere per meter.

broader term: magnetic susceptibility

water content

definition: a measure of the amount of water that is contained within a material, often expressed as a weight percent.

broader term: porosity

water table depth

definition: a hydrographic variable that quantifies the depth from the land surface to the upper surface of the zone of saturation in the soil.

broader term: hydrographic variable

wave property

definition: a physical property relating to the characteristics of waves.

broader term: physical property

narrower term: P-wave amplitude

narrower term: P-wave velocity

narrower term: wavelength

wavelength

definition: a wave property that is the distance over which a wave's shape repeats.

broader term: wave property

weight

definition: a physical property that is the force on a object due to gravity and that is generally measured using a spring scale.

broader term: physical property

wetland area

definition: a hydrographic variable that quantifies the surface area of wetlands over specified geographic bounds.

broader term: hydrographic variable

wind direction

definition: the direction of the wind at an unspecified height in the atmosphere (CF: wind_from_direction).

broader term: circulation variable

wind speed

definition: the velocity of wind at some height in the atmosphere. Height within the atmosphere should be described in the "Additional Information" field. (CF: wind_speed).

broader term: circulation variable

narrower term: eastward wind speed

narrower term: northward wind speed

wood

definition: a porous and fibrous structural tissue that is found in the stems and roots of trees and other woody plants (Wikipedia).

broader term: tissue

narrower term: earlywood

narrower term: latewood

xenon

definition: a chemical element with atomic number 54.

broader term: element or single-element molecule

synonym: Xe

ytterbium

definition: a chemical element with atomic number 70.

broader term: element or single-element molecule

synonym: Yb

yttrium

definition: a chemical element with atomic number 39.

broader term: element or single-element molecule

synonym: Y

yttrium/calcium

definition: the elemental ratio of yttrium to calcium.

broader term: element or compound ratio

synonym: Y/Ca

zinc

definition: a chemical element with atomic number 30.
broader term: element or single-element molecule
synonym: Zn

zinc/silicon

definition: the elemental ratio of zinc to silicon.
broader term: element or compound ratio
synonym: Zn/Si

zircon

definition: a silicate mineral with the formula $Zr(SiO_4)$ (Dana 8th ed.: 51.5.2.1; Nickel-Strunz 10th (pending) ed.: 9.AD.30; <https://www.mindat.org/min-4421.html>).
broader term: silicate mineral

zirconium

definition: a chemical element with atomic number 40.
broader term: element or single-element molecule
synonym: Zr

zirconium dioxide

definition: an inorganic compound that has the chemical formula ZrO_2 .
broader term: inorganic compound
synonym: ZrO_2
synonym: zirconia

zirconium/aluminum

definition: the elemental ratio of zirconium to aluminum.
broader term: element or compound ratio
synonym: Zr/Al

zirconium/potassium

definition: the elemental ratio of zirconium to potassium.
broader term: element or compound ratio
synonym: Zr/K

zirconium/strontium

definition: the elemental ratio of zirconium to strontium.
broader term: element or compound ratio
synonym: Zr/Sr

zooplankton

definition: the quantity of plankton consisting of small animals near the surface of aquatic environments that consume phytoplankton
(CF: mole_concentration_of_zooplankton_expressed_as_carbon_in_sea_water, mole_concentration_of_zooplankton_expressed_as_nitrogen_in_sea_water).
broader term: ecosystem quantity

material

definition: the material on which measurements were made or from which reconstructions were created.
narrower term: atmospheric material
narrower term: biological material
narrower term: chemical composition
narrower term: geological material
narrower term: hydrologic material
narrower term: reconstruction material

acetic acid

definition: an organooxygen compound with the chemical formula C₂H₃O₂ (CHEBI: 15366).
broader term: organooxygen compound
narrower term: insoluble acetic acid
narrower term: soluble acetic acid

Acropora cervicornis

definition: a particular species of the *Acropora* genus that is commonly known as the staghorn coral (TSN: 52862; urn:lsid:marinespecies.org:taxname:206989).
broader term: *Acropora* sp.

Acropora humilis

definition: a particular species of the *Acropora* genus that is commonly known as finger coral (TSN: 52868; urn:lsid:marinespecies.org:taxname:207094).
broader term: *Acropora* sp.

Acropora palmata

definition: a particular species of the *Acropora* genus that is commonly known as the elkhorn coral (TSN: 52861; urn:lsid:marinespecies.org:taxname:288227).
broader term: *Acropora* sp.

Acropora samoensis

definition: a particular species of the *Acropora* genus (TSN: 52877; urn:lsid:marinespecies.org:taxname:207055).
broader term: *Acropora* sp.

Acropora sp.

definition: any coral that belongs to the genus *Acropora* (TSN: 52860; urn:lsid:marinespecies.org:taxname:205469).
broader term: coral
narrower term: *Acropora cervicornis*
narrower term: *Acropora humilis*
narrower term: *Acropora palmata*
narrower term: *Acropora samoensis*

agglutinated foraminifer

definition: a benthic foraminifer whose test, or shell, consists of foreign particles from the environment cemented together.
broader term: benthic foraminifer

alanine

definition: an amino acid with the formula C₃H₇NO₂ (CHEBI: 16449).
broader term: amino acid

alcohol

definition: an organic hydroxy compound that has a hydroxyl functional group bound to a saturated carbon atom (CHEBI: 30879).
broader term: organic hydroxy compound

alkane

definition: a hydrocarbon that is an acyclic and saturated with the general chemical formula C_nH_{2n+2} (CHEBI: 18310).
broader term: hydrocarbon
narrower term: n-alkane

alkene

definition: a hydrocarbon that is unsaturated with at least one carbon-carbon double bond (CHEBI: 32878).
broader term: hydrocarbon
narrower term: highly-branched isoprenoid alkene

alkenone

definition: a ketone that is a long-chain unsaturated methyl and ethyl n-ketone produced by a few phytoplankton species of the class Prymnesiophyceae (Wikipedia).
broader term: ketone
narrower term: C₃₇ alkenone
narrower term: C₃₈ alkenone

alkenone unsaturation index

broader term: organic compound index

alpha cellulose

definition: one of three classes of cellulose, and the one that has the highest degree of polymerization.
broader term: cellulose
narrower term: earlywood alpha cellulose
narrower term: latewood alpha cellulose

amino acid

definition: an organooxygen compound that contains one or more amino groups of NH₂ (CHEBI: 33709).
broader term: organooxygen compound
narrower term: alanine
narrower term: arginine
narrower term: asparagine
narrower term: aspartic acid
narrower term: cysteine
narrower term: glutamic acid
narrower term: glutamine
narrower term: glycine

narrower term: histidine
narrower term: isoleucine
narrower term: leucine
narrower term: lysine
narrower term: methionine
narrower term: phenylalanine
narrower term: proline
narrower term: serine
narrower term: threonine
narrower term: tryptophan
narrower term: tyrosine
narrower term: valine

Antipathes sp.

definition: any coral that belongs to the genus *Antipathes*, commonly known as black coral (TSN: 51942; urn:lsid:marinespecies.org:taxname:103302).
broader term: coral

aragonite

definition: a calcium carbonate with orthorhombic crystal structure.
broader term: calcium carbonate

arginine

definition: an amino acid with the formula C₆H₁₄N₄O₂ (CHEBI: 29016).
broader term: amino acid

aromatic compound

definition: an organic compound that is highly-stable, cyclic, and planar with a ring of resonance bonds (CHEBI: 33659).
broader term: organic compound
narrower term: lignin

asparagine

definition: an amino acid with the formula C₄H₈N₂O₃ (CHEBI: 22653).
broader term: amino acid
synonym: Asn

aspartic acid

definition: an amino acid with the formula C₄H₇NO₄ (CHEBI: 22660).
broader term: amino acid
synonym: Asp

Astrosclera sp.

definition: any sclerosponge that belongs to the genus *Astrosclera* (TSN: 659474; urn:lsid:marinespecies.org:taxname:164848).
broader term: sclerosponge
narrower term: *Astrosclera willeyana*

Astrosclera willeyana

definition: a particular species of the genus *Astrosclera* (urn:lsid:marinespecies.org:taxname:164849).
broader term: *Astrosclera* sp.

atmospheric material

definition: a material derived from the atmosphere.

broader term: material

narrower term: bulk atmosphere

benthic foraminifer

definition: a foraminifer who lives free on or in sediments (motile) or attached to substrata (sessile).

broader term: foraminifer

narrower term: agglutinated foraminifer

narrower term: calcareous benthic foraminifer

biological assemblage

definition: the collection of organisms that occur together in space and time.

broader term: reconstruction material

narrower term: chrysophyte assemblage

narrower term: diatom assemblage

narrower term: dinoflagellate assemblage

narrower term: foraminifer assemblage

narrower term: midge assemblage

narrower term: ostracod assemblage

narrower term: radiolarian assemblage

narrower term: testate amoebae assemblage

biological material

definition: a material derived from a living thing.

broader term: material

narrower term: bulk biological material

narrower term: organism

narrower term: tissue

bivalve

definition: an identifiable organism including clams and mussels that belongs to the kingdom Animalia, phylum Mollusca, class Bivalvia (TSN: 79118).

broader term: organism

borate ion

definition: any inorganic compound that is formally derived from boric acid (CHEBI: 22909).

broader term: inorganic compound

boron/calcium

definition: the elemental ratio of boron to calcium.

broader term: element or compound ratio

brassicasterol

definition: a sterol that has the chemical formula C₂₈H₄₆O and is synthesised by several unicellular algae(phytoplankton) and some terrestrial plants (CHEBI: 3168).

broader term: sterol

bulk atmosphere

definition: a whole sample of the atmosphere, without any separation of components.

broader term: atmospheric material

bulk biological material

definition: a biological material that consists of undifferentiated components, often from different sources.

broader term: biological material

narrower term: organic matter

narrower term: peat

bulk geological material

definition: a geological material that consists of undifferentiated components, often from different sources.

broader term: geological material

narrower term: dust

narrower term: particles

narrower term: rock

narrower term: sediment

narrower term: soil

narrower term: volcanic material

bulk ice

definition: a whole sample of recrystallized and compacted snow, without any separation of components.

broader term: hydrologic material

C16 n-alkanoic acid

definition: a n-alkanoic acid with the formula $C_{15}H_{31}COOH$.

broader term: n-alkanoic acid

C17 n-alkanoic acid

definition: a n-alkanoic acid with the formula $C_{16}H_{33}COOH$.

broader term: n-alkanoic acid

C18 n-alkanoic acid

definition: a n-alkanoic acid with the formula $C_{17}H_{35}COOH$.

broader term: n-alkanoic acid

C19 n-alkanoic acid

definition: a n-alkanoic acid with the formula $C_{18}H_{37}COOH$.

broader term: n-alkanoic acid

C20 n-alkanoic acid

definition: a n-alkanoic acid with the formula $C_{19}H_{39}COOH$.

broader term: n-alkanoic acid

C21 n-alkane

definition: a n-alkane with the chemical formula $C_{21}H_{44}$.

broader term: n-alkane

C21 n-alkanoic acid

definition: a n-alkanoic acid with the formula $C_{20}H_{41}COOH$.

broader term: n-alkanoic acid

C22 n-alkane

definition: a n-alkane with the chemical formula $C_{22}H_{46}$.

broader term: n-alkane

- C22 n-alkanoic acid
definition: a n-alkanoic acid with the formula C₂₁H₄₃COOH.
broader term: n-alkanoic acid
- C23 n-alkane
definition: a n-alkane with the chemical formula C₂₃H₄₈.
broader term: n-alkane
- C23 n-alkanoic acid
definition: a n-alkanoic acid with the formula C₂₂H₄₅COOH.
broader term: n-alkanoic acid
- C24 n-alkane
definition: a n-alkane with the chemical formula C₂₄H₅₀.
broader term: n-alkane
- C24 n-alkanoic acid
definition: a n-alkanoic acid with the formula C₂₃H₄₇COOH.
broader term: n-alkanoic acid
- C25 n-alkane
definition: a n-alkane with the chemical formula C₂₅H₅₂.
broader term: n-alkane
- C25 n-alkanoic acid
definition: a n-alkanoic acid with the formula C₂₄H₄₉COOH.
broader term: n-alkanoic acid
- C26 n-alkane
definition: a n-alkane with the chemical formula C₂₆H₅₄.
broader term: n-alkane
- C26 n-alkanoic acid
definition: a n-alkanoic acid with the formula C₂₅H₅₁COOH.
broader term: n-alkanoic acid
- C27 n-alkane
definition: a n-alkane with the chemical formula C₂₇H₅₆.
broader term: n-alkane
- C27 n-alkanoic acid
definition: a n-alkanoic acid with the formula C₂₆H₅₃COOH.
broader term: n-alkanoic acid
- C28 n-alkane
definition: a n-alkane with the chemical formula C₂₈H₅₈.
broader term: n-alkane
- C28 n-alkanoic acid
definition: a n-alkanoic acid with the formula C₂₇H₅₅COOH.
broader term: n-alkanoic acid

- C29 n-alkane
definition: a n-alkane with the chemical formula C₂₉H₆₀.
broader term: n-alkane
- C29 n-alkanoic acid
definition: a n-alkanoic acid with the formula C₂₈H₅₇COOH.
broader term: n-alkanoic acid
- C30 n-alkane
definition: a n-alkane with the chemical formula C₃₀H₆₂.
broader term: n-alkane
- C30 n-alkanoic acid
definition: a n-alkanoic acid with the formula C₂₉H₅₉COOH.
broader term: n-alkanoic acid
- C31 n-alkane
definition: a n-alkane with the chemical formula C₃₁H₆₄.
broader term: n-alkane
- C31 n-alkanoic acid
definition: a n-alkanoic acid with the formula C₃₀H₆₁COOH.
broader term: n-alkanoic acid
- C32 n-alkane
definition: a n-alkane with the chemical formula C₃₂H₆₆.
broader term: n-alkane
- C32 n-alkanoic acid
definition: a n-alkanoic acid with the formula C₃₁H₆₃COOH.
broader term: n-alkanoic acid
- C33 n-alkane
definition: a n-alkane with the chemical formula C₃₃H₆₈.
broader term: n-alkane
- C33 n-alkanoic acid
definition: a n-alkanoic acid with the formula C₃₂H₆₅COOH.
broader term: n-alkanoic acid
- C34 n-alkane
definition: a n-alkane with the chemical formula C₃₄H₇₀.
broader term: n-alkane
- C34 n-alkanoic acid
definition: a n-alkanoic acid with the formula C₃₃H₆₇COOH.
broader term: n-alkanoic acid
- C35 n-alkane
definition: a n-alkane with the chemical formula C₃₅H₇₂.
broader term: n-alkane

C37 alkenone

definition: an alkenone that contains 37 carbon atoms.
broader term: alkenone
narrower term: C37:2 alkenone
narrower term: C37:3 alkenone
narrower term: C37:4 alkenone

C37:2 alkenone

definition: a C37 alkenone that is di-unsaturated.
broader term: C37 alkenone

C37:3 alkenone

definition: a C37 alkenone that is tri-unsaturated.
broader term: C37 alkenone

C37:4 alkenone

definition: a C37 alkenone that is tetra-unsaturated.
broader term: C37 alkenone

C38 alkenone

definition: an alkenone that contains 38 carbon atoms.
broader term: alkenone
narrower term: C38:2 alkenone

C38:2 alkenone

definition: a C38 alkenone that is di-unsaturated.
broader term: C38 alkenone

cadmium/calcium

definition: the elemental ratio of cadmium to calcium.
broader term: element or compound ratio

calcareous benthic foraminifer

definition: a benthic foraminifer that secretes a rigid calcite or aragonite test, or shell.
broader term: benthic foraminifer
narrower term: Cibicides sp.
narrower term: Cibicidoides sp.
narrower term: Melonis sp.
narrower term: Nuttallides sp.
narrower term: Oridorsalis sp.
narrower term: Planulina sp.
narrower term: Uvigerina sp.

calcareous nannofossil

definition: remains of coccolithophores or their likely relatives consisting primarily of coccoliths but additionally small calcite nannoliths of uncertain origin.
broader term: coccolithophore

calcite

definition: a calcium carbonate with rhombohedral crystal structure.
broader term: calcium carbonate

calcium carbonate

definition: a carbonate with the chemical formula CaCO_3 but of unspecified crystal structure.

broader term: carbonate

synonym: CaCO_3

narrower term: aragonite

narrower term: calcite

narrower term: mixed calcite/aragonite

carbon dioxide

definition: an inorganic compound that has the chemical formula CO_2 (CHEBI: 16526).

broader term: inorganic compound

synonym: CO_2

carbon monoxide

definition: an inorganic compound that has the chemical formula CO (CHEBI: 17245).

broader term: inorganic compound

synonym: CO

carbonate

definition: an identified mineral characterized by a fundamental anionic structure of CO_3^{2-} (Dictionary of Geological Terms).

broader term: identified mineral

narrower term: calcium carbonate

narrower term: dolomite

cellulose

definition: an organooxygen compound with the general formula $(\text{C}_6\text{H}_{10}\text{O}_5)_n$ and that is an important structural component of the cell walls of green plants (Wikipedia).

broader term: organooxygen compound

narrower term: alpha cellulose

narrower term: earlywood cellulose

narrower term: latewood cellulose

Ceratoporella nicholsoni

definition: a particular species of the genus *Ceratoporella* (urn:lsid:marinespecies.org:taxname:164851).

broader term: *Ceratoporella* sp.

Ceratoporella sp.

definition: any sclerosponge that belongs to the genus *Ceratoporella* (TSN: 659475;

urn:lsid:marinespecies.org:taxname:164850).

broader term: sclerosponge

narrower term: *Ceratoporella nicholsoni*

chemical composition

definition: a material used to create a climate reconstruction that is based on a measurement of chemical composition.

broader term: material

narrower term: compound

narrower term: element or single-element molecule

cholesterol

definition: a sterol that has the chemical formula $\text{C}_{27}\text{H}_{46}\text{O}$ (CHEBI: 16113).

broader term: sterol

chrysophyte assemblage

definition: an assemblage of golden or golden-brown algae that belong to the kingdom Chromista, class Chrysophyceae (TSN: 1448).

broader term: biological assemblage

Cibicides kullenbergi

definition: a particular species of the genus *Cibicides* (TSN: 45700; urn:lsid:marinespecies.org:taxname:112873).

broader term: *Cibicides* sp.

Cibicides sp.

definition: any foraminifer that belongs to the genus *Cibicides* (TSN: 45687; urn:lsid:marinespecies.org:taxname:112082).

broader term: calcareous benthic foraminifer

narrower term: *Cibicides kullenbergi*

Cibicoides lobatulus

definition: a particular species of the genus *Cibicoides* (urn:lsid:marinespecies.org:taxname:988323).

broader term: *Cibicoides* sp.

Cibicoides mundula

definition: a particular species of the genus *Cibicoides* (urn:lsid:marinespecies.org:taxname:418067).

broader term: *Cibicoides* sp.

Cibicoides pachyderma

definition: a particular species of the genus *Cibicoides* (urn:lsid:marinespecies.org:taxname:112884).

broader term: *Cibicoides* sp.

synonym: *Cibicides pachyderma*

Cibicoides sp.

definition: any foraminifer that belongs to the genus *Cibicoides* (urn:lsid:marinespecies.org:taxname:112084).

broader term: calcareous benthic foraminifer

narrower term: *Cibicoides lobatulus*

narrower term: *Cibicoides mundula*

narrower term: *Cibicoides pachyderma*

narrower term: *Cibicoides wuellerstorfi*

Cibicoides wuellerstorfi

definition: a particular species of the genus *Cibicoides* (urn:lsid:marinespecies.org:taxname:112890).

broader term: *Cibicoides* sp.

cladoceran

definition: an identifiable organism commonly known as a water flea that belongs to the kingdom Animalia, phylum Arthropoda, class Branchiopoda, order Cladocera (TSN: 83832).

broader term: organism

narrower term: ephippia

Clathromorphum compactum

definition: a particular species of the genus Clathromorphum (TSN: 12433;
urn:lsid:marinespecies.org:taxname:145105).
broader term: Clathromorphum sp.
synonym: Lithothamnium compactum

Clathromorphum nereostratum

definition: a particular species of the genus Clathromorphum
(urn:lsid:marinespecies.org:taxname:373749).
broader term: Clathromorphum sp.

Clathromorphum sp.

definition: any coralline algae that belongs to the genus Clathromorphum (TSN: 12431;
urn:lsid:marinespecies.org:taxname:144006).
broader term: coralline algae
narrower term: Clathromorphum compactum
narrower term: Clathromorphum nereostratum

coccolithophore

definition: an identifiable organism that is a unicellular phytoplankton and that belongs to the kingdom
Chromista, phylum Haptophyta, class Prymnesiophyceae (TSN: 2135).
broader term: organism
narrower term: calcareous nannofossil

compound

broader term: chemical composition
narrower term: inorganic compound
narrower term: organic compound

coral

definition: an identifiable organism that belongs to the kingdom Animalia, phylum Cnidaria (TSN:
48738; urn:lsid:marinespecies.org:taxname:1267).
broader term: organism
narrower term: Acropora sp.
narrower term: Antipathes sp.
narrower term: Desmophyllum sp.
narrower term: Diploastrea sp.
narrower term: Diploria sp.
narrower term: Dipsastraea sp.
narrower term: Gardinersoseris sp.
narrower term: Goniopora sp.
narrower term: Hydnothya sp.
narrower term: Isidella sp.
narrower term: Isopora sp.
narrower term: Kulamanamana sp.
narrower term: Montastraea sp.
narrower term: Muricella sp.
narrower term: Mussismilia sp.
narrower term: Orbicella sp.
narrower term: Pavona sp.
narrower term: Platygyra sp.
narrower term: Pocillopora sp.
narrower term: Porites sp.

narrower term: Pseudodiploria sp.
narrower term: Siderastrea sp.
narrower term: Solenastrea sp.

coralline algae

definition: an identifiable organism that belongs to the kingdom Plantae and order Corallinales (TSN: 660049; urn:lsid:marinespecies.org:taxname:15308).
broader term: organism
narrower term: Clathromorphum sp.

cysteine

definition: an amino acid with the formula C₃H₇NO₂S (CHEBI: 15356).
broader term: amino acid
synonym: Cys

delta 11B

definition: the ratio of 11B/10B in a sample compared to that of a standard, typically NIST SRM 951, as in: $((11\text{B}/10\text{B sample})/(11\text{B}/10\text{B standard}) - 1) \times 1000$.
broader term: isotope ratio
synonym: d11B
synonym: delta B11

delta 13C

definition: the ratio of 13C/12C in a sample compared to that of a standard, typically the Pee Dee Belemnite, as in: $((13\text{C}/12\text{C sample})/(13\text{C}/12\text{C standard}) - 1) \times 1000$.
broader term: isotope ratio
synonym: d13C
synonym: delta C13

delta 15N excess

definition: a measure of the deviation of a delta 15N value from the value calculated from delta 40Ar measured on the same sample assuming that differences between the two isotopic ratios are caused only by differences in gravitational settling, that is $\delta 15\text{N} - \delta 40\text{Ar}/4$. This quantity is used to reconstruct temperature.
broader term: isotope ratio
synonym: d15N excess

delta 18O

definition: the ratio of 18O/16O in a sample compared to that of a standard, typically either Pee Dee Belemnite or standard mean ocean water, as in: $((18\text{O}/16\text{O sample})/(18\text{O}/16\text{O standard}) - 1) \times 1000$.
broader term: isotope ratio
synonym: d18O
synonym: delta O18

delta 2H

definition: the ratio of 2H/1H in a sample compared to that of a standard, typically standard mean ocean water, as in: $((2\text{H}/1\text{H sample})/(2\text{H}/1\text{H standard}) - 1) \times 1000$.
broader term: isotope ratio
synonym: d2H
synonym: dD
synonym: delta D
synonym: delta H2

Desmophyllum dianthus

definition: a particular species of the genus Desmophyllum that is commonly known as cockscomb cup coral (TSN: 572071; urn:lsid:marinespecies.org:taxname:135159).

broader term: Desmophyllum sp.

Desmophyllum sp.

definition: any coral that belongs to the genus Desmophyllum (TSN: 53588; urn:lsid:marinespecies.org:taxname:135093).

broader term: coral

narrower term: Desmophyllum dianthus

diatom

definition: an identifiable organism that is a unicellular phytoplankton and that belongs to the kingdom Chromista, phylum Ochrophyta, class Bacillariophyceae (TSN: 2287).

broader term: organism

diatom assemblage

definition: an assemblage of unicellular phytoplankton that belong to the kingdom Chromista, phylum Ochrophyta, class Bacillariophyceae (TSN: 2287).

broader term: biological assemblage

dinoflagellate assemblage

definition: an assemblage of organisms that belong to the kingdom Chromista, division Pyrrophytophyta (TSN: 9873).

broader term: biological assemblage

dinosterol

definition: a sterol that has the chemical formula C₃₀H₅₂O and that is synthesized by several genera of dinoflagellates.

broader term: sterol

Diploastrea heliopora

definition: a particular species of the Diploastrea genus that is commonly known as double-star coral (TSN: 53335; urn:lsid:marinespecies.org:taxname:207417).

broader term: Diploastrea sp.

Diploastrea sp.

definition: any coral that belongs to the genus Diploastrea (TSN: 53334; urn:lsid:marinespecies.org:taxname:204221).

broader term: coral

narrower term: Diploastrea heliopora

Diploria labyrinthiformis

definition: a particular species of the Diploria genus that is commonly known as grooved brain coral (TSN: 53286; urn:lsid:marinespecies.org:taxname:289826).

broader term: Diploria sp.

Diploria sp.

definition: any coral that belongs to the genus Diploria, commonly known as brain corals (TSN: 53284; urn:lsid:marinespecies.org:taxname:267392).

broader term: coral

narrower term: *Diploria labyrinthiformis*

Dipsastraea sp.

definition: any coral that belongs to the genus *Dipsastraea* (urn:lsid:marinespecies.org:taxname:718746).

broader term: coral

narrower term: *Dipsastraea speciosa*

Dipsastraea speciosa

definition: a particular species of the genus *Dipsastraea* that is commonly known as knob coral (urn:lsid:marinespecies.org:taxname:758219).

broader term: *Dipsastraea* sp.

synonym: *Astraea speciosa*

synonym: *Favia speciosa*

dissolved inorganic carbon

definition: the sum of all inorganic carbon species dissolved in a solution. The inorganic carbon species include carbon dioxide, carbonic acid, bicarbonate anion, and carbonate.

broader term: element or single-element molecule

dolomite

definition: a carbonate with the formula $\text{CaMg}(\text{CO}_3)_2$ (Dana 8th ed.: 14.2.1.1; Nickel-Strunz 10th (pending) ed.: 5.AB.10; <https://www.mindat.org/min-1304.html>).

broader term: carbonate

dry sediment

definition: sediment from which all water has been removed.

broader term: sediment

dust

definition: a bulk geological material that consists of organic or inorganic particles of typically clay and silt size that are transportable by wind.

broader term: bulk geological material

narrower term: loess

earlywood

definition: wood that formed early in the growing season and that tends to consist of large and thin-walled cells.

broader term: wood

earlywood alpha cellulose

definition: alpha cellulose from wood that formed early in the growing season and that tends to consist of large and thin-walled cells.

broader term: alpha cellulose

earlywood cellulose

definition: cellulose from wood that formed early in the growing season and that tends to consist of large and thin-walled cells.

broader term: cellulose

element or compound ratio

definition: the ratio of elements or of compounds.

broader term: reconstruction material

narrower term: boron/calcium
narrower term: cadmium/calcium
narrower term: magnesium/calcium
narrower term: manganese/calcium
narrower term: strontium/calcium
narrower term: uranium/calcium

element or single-element molecule

definition: a measurement of a single element.
broader term: chemical composition
narrower term: dissolved inorganic carbon
narrower term: nitrogen gas
narrower term: oxygen gas

ephippia

definition: the eggs of a cladoceran.
broader term: cladoceran

extension rate

definition: a rate of linear growth in corals and related species, usually calculated from the width of an annual growth band.
broader term: physical measurement

fatty acid

definition: an organooxygen compound with the general formula CHO_2R where R is a long aliphatic chain (i.e., lacking an especially stable ring of atoms) (CHEBI: 35366).
broader term: organooxygen compound
narrower term: n-alkanoic acid
narrower term: palmitic acid

firn

definition: a hydrological material that is transitional between snow and ice (Dictionary of Geological Terms).
broader term: hydrologic material

fish

definition: an identifiable organism that belongs to the kingdom Animalia, phylum Chordata and that is a gill-bearing aquatic crinate animal that lacks limbs with digits (TSN: 158852).
broader term: organism

fluid inclusion

definition: microscopic bubbles of liquid or gas that are trapped within crystals (Wikipedia).
broader term: hydrologic material

foraminifer

definition: an identifiable organism that belongs to the kingdom Protozoa, order Foraminiferida (TSN: 44030).
broader term: organism
narrower term: benthic foraminifer
narrower term: planktic foraminifer

foraminifer assemblage

definition: an assemblage of organisms that belong to the kingdom Protozoa, order Foraminiferida (TSN: 44030).

broader term: biological assemblage

Gardinersoseris planulata

definition: a particular species of the genus Gardinersoseris that is commonly known as Gardiner's coral (urn:lsid:marinespecies.org:taxname:207274).

broader term: Gardinersoseris sp.

Gardinersoseris sp.

definition: any coral that belongs to the genus Gardinersoseris (urn:lsid:marinespecies.org:taxname:204594).

broader term: coral

narrower term: Gardinersoseris planulata

gastropod

definition: an identifiable organism including the slugs and snails that belongs to the kingdom Animalia, phylum Mollusca, class Gastropoda (TSN: 69459).

broader term: organism

geological material

definition: a material that consists of minerals, rocks, and unconsolidated materials such as soils and sediments.

broader term: material

narrower term: bulk geological material

narrower term: identified mineral

Globigerina bulloides

definition: a particular species of the genus Globigerina (TSN: 45797; urn:lsid:marinespecies.org:taxname:113434).

broader term: Globigerina sp.

Globigerina sp.

definition: any foraminifer that belongs to the genus Globigerina (TSN: 45796; urn:lsid:marinespecies.org:taxname:112197).

broader term: planktic foraminifer

narrower term: Globigerina bulloides

Globigerinella siphonifera

definition: a particular species of the genus Globigerinella (urn:lsid:marinespecies.org:taxname:113440).

broader term: Globigerinella sp.

Globigerinella sp.

definition: any foraminifer that belongs to the genus Globigerinella (urn:lsid:marinespecies.org:taxname:112198).

broader term: planktic foraminifer

narrower term: Globigerinella siphonifera

Globigerinoides ruber

definition: a particular species of the genus Globigerinoides (TSN: 180980; urn:lsid:marinespecies.org:taxname:113444).

broader term: Globigerinoides sp.

synonym: *Globigerinoides rubra*
narrower term: *Globigerinoides ruber* pink
narrower term: *Globigerinoides ruber sensu lato*
narrower term: *Globigerinoides ruber sensu stricto*
narrower term: *Globigerinoides ruber* white

Globigerinoides ruber pink

definition: a chromotype of *Globigerinoides ruber* that produces pink-pigmented tests.
broader term: *Globigerinoides ruber*

Globigerinoides ruber sensu lato

definition: a morphotype of *Globigerinoides ruber* that forms compact, non-spherical chambers.
broader term: *Globigerinoides ruber*

Globigerinoides ruber sensu stricto

definition: a morphotype of *Globigerinoides ruber* that is symmetrical with spherical chambers.
broader term: *Globigerinoides ruber*

Globigerinoides ruber white

definition: a chromotype of *Globigerinoides ruber* that produces unpigmented, or white, tests.
broader term: *Globigerinoides ruber*

Globigerinoides sp.

definition: any foraminifer that belongs to the genus *Globigerinoides* (TSN: 180976; urn:lsid:marinespecies.org:taxname:112199).
broader term: planktic foraminifer
narrower term: *Globigerinoides ruber*

Globorotalia crassaformis

definition: a particular species of the genus *Globorotalia* (urn:lsid:marinespecies.org:taxname:418113).
broader term: *Globorotalia* sp.

Globorotalia hirsuta

definition: a particular species of the genus *Globorotalia* (urn:lsid:marinespecies.org:taxname:113448).
broader term: *Globorotalia* sp.

Globorotalia inflata

definition: a particular species of the genus *Globorotalia* (urn:lsid:marinespecies.org:taxname:906779).
broader term: *Globorotalia* sp.

Globorotalia menardii

definition: a particular species of the genus *Globorotalia* (urn:lsid:marinespecies.org:taxname:113450).
broader term: *Globorotalia* sp.

Globorotalia sp.

definition: any foraminifer that belongs to the genus *Globorotalia* (TSN: 45782; urn:lsid:marinespecies.org:taxname:112200).
broader term: planktic foraminifer
narrower term: *Globorotalia crassaformis*
narrower term: *Globorotalia hirsuta*
narrower term: *Globorotalia inflata*
narrower term: *Globorotalia menardii*

narrower term: Globorotalia truncatulinoides

narrower term: Globorotalia tumida

Globorotalia truncatulinoides

definition: a particular species of the genus Globorotalia (urn:lsid:marinespecies.org:taxname:113453).

broader term: Globorotalia sp.

narrower term: Globorotalia truncatulinoides encrusted

narrower term: Globorotalia truncatulinoides non-encrusted

Globorotalia truncatulinoides encrusted

definition: the encrusted variant of Globorotalia truncatulinoides.

broader term: Globorotalia truncatulinoides

Globorotalia truncatulinoides non-encrusted

definition: the non-encrusted variant of Globorotalia truncatulinoides.

broader term: Globorotalia truncatulinoides

Globorotalia tumida

definition: a particular species of the genus Globorotalia (TSN: 45788; urn:lsid:marinespecies.org:taxname:418114).

broader term: Globorotalia sp.

glutamic acid

definition: an amino acid with the formula C₅H₉NO₄ (CHEBI: 18237).

broader term: amino acid

synonym: Glu

glutamine

definition: an amino acid with the formula C₅H₁₀N₂O₃ (CHEBI: 28300).

broader term: amino acid

synonym: Gln

glycerol dialkyl glycerol tetraether

definition: an organic hydroxy compound that is a membrane lipid and that contains between 0 and 4 cyclopentane moieties, with an increasing number of cyclopentane moieties related to the temperature of formation.

broader term: organic hydroxy compound

synonym: GDGT

glycerol dialkyl glycerol tetraether index

broader term: organic compound index

glycine

definition: an amino acid with the formula C₂H₅NO₂ (CHEBI: 15428).

broader term: amino acid

synonym: Gly

Goniopora hilli

definition: a particular species of the genus Goniopora.

broader term: Goniopora sp.

Goniopora sp.

definition: any coral that belongs to the genus *Goniopora* (TSN: 53214; urn:lsid:marinespecies.org:taxname:205476).
broader term: coral
narrower term: *Goniopora hilli*

growth rate

definition: a rate of linear growth of a deposit (e.g., speleothem, mollusk shell), sometimes calculated from the width of an annual growth band. The term extension rate should be used for corals.
broader term: physical measurement

gypsum

definition: a sulfate mineral with the formula $\text{CaSO}_4 \cdot 2(\text{H}_2\text{O})$ (Dana 8th ed.: 29.6.3.1; Nickel-Strunz 10th (pending) ed.: 7.CD.40; <https://www.mindat.org/min-1784.html>).
broader term: identified mineral

highly-branched isoprenoid alkene

definition: an alkene that is highly-branched and composed of a number of isoprene (C_5H_8) units and that is produced by a relatively small number of marine and freshwater diatoms belonging to the *Haslea*, *Navicula*, *Pleurosigma*, and *Rhizosolenia* genera (Belt et al. 2013).
broader term: alkene

histidine

definition: an amino acid with the formula $\text{C}_6\text{H}_9\text{N}_3\text{O}_2$ (CHEBI: 27570).
broader term: amino acid
synonym: His

Hydnophora microconos

definition: a particular species of the genus *Hydnophora* that is commonly known as spine coral (TSN: 53445; urn:lsid:marinespecies.org:taxname:207402).
broader term: *Hydnophora* sp.

Hydnophora sp.

definition: any coral that belongs to the genus *Hydnophora* (TSN: 53441; urn:lsid:marinespecies.org:taxname:204976).
broader term: coral
narrower term: *Hydnophora microconos*

hydrocarbon

definition: an organic compound that consists of carbon and hydrogen only (CHEBI: 24632).
broader term: organic compound
narrower term: alkane
narrower term: alkene

hydrologic material

definition: a material that consists of liquid or frozen water.
broader term: material
narrower term: bulk ice
narrower term: firn
narrower term: fluid inclusion
narrower term: lake water
narrower term: precipitation
narrower term: river water

narrower term: sea water
narrower term: sediment pore water

identified mineral

definition: a geological material that has been identified based on composition and crystal structure as a specific mineral or as belonging to a certain mineral class.

broader term: geological material
narrower term: carbonate
narrower term: gypsum
narrower term: quartz

inorganic compound

broader term: compound
narrower term: borate ion
narrower term: carbon dioxide
narrower term: carbon monoxide
narrower term: nitrate
narrower term: nitrous oxide
narrower term: sulfate

insoluble acetic acid

definition: acetic acid that is insoluble.
broader term: acetic acid

Isidella sp.

definition: any coral that belongs to the genus *Isidella* (TSN: 719033; urn:lsid:marinespecies.org:taxname:125305).
broader term: coral

isoleucine

definition: an amino acid with the formula $C_6H_{13}NO_2$ and a different chemical structure than leucine (CHEBI: 24898).
broader term: amino acid
synonym: Ile

Isopora sp.

definition: any coral that belongs to the genus *Isopora* (urn:lsid:marinespecies.org:taxname:730685).
broader term: coral

isotope ratio

definition: the ratio of one isotope compared to another isotope.
broader term: reconstruction material
narrower term: delta 11B
narrower term: delta 13C
narrower term: delta 15N excess
narrower term: delta 18O
narrower term: delta 2H

ketone

definition: an organooxygen compound that has the general formula $RC(=O)R'$ (CHEBI: 17087).
broader term: organooxygen compound
narrower term: alkenone

Kulamanamana haumeaae

definition: a particular species of the genus Kulamanamana that is commonly known as Hawaiian gold coral (urn:lsid:marinespecies.org:taxname:715097).

broader term: Kulamanamana sp.

synonym: Gerardia sp.

Kulamanamana sp.

definition: any coral that belongs to the genus Kulamanamana (urn:lsid:marinespecies.org:taxname:715089).

broader term: coral

narrower term: Kulamanamana haumeaae

lake water

definition: a hydrologic material that consists of water sampled from a lake.

broader term: hydrologic material

latewood

definition: wood that formed late in the growing season and that tends to consist of small and thick-walled cells.

broader term: wood

latewood alpha cellulose

definition: alpha cellulose from wood that formed late in the growing season and that tends to consist of small and thick-walled cells.

broader term: alpha cellulose

latewood cellulose

definition: cellulose from wood that formed late in the growing season and that tends to consist of small and thick-walled cells.

broader term: cellulose

leucine

definition: an amino acid with the formula C₆H₁₃NO₂ (CHEBI: 25017).

broader term: amino acid

synonym: Leu

lignin

definition: an aromatic compound that is part of a class of complex organic polymers (CHEBI: 6457).

broader term: aromatic compound

loess

definition: dust that is deposited on the land surface by winds.

broader term: dust

luminescence

definition: an electromagnetic property that measures the emission of light by a substance not resulting from heat.

broader term: physical measurement

lysine

definition: an amino acid with the formula C₆H₁₄N₂O₂ (CHEBI: 25094).

broader term: amino acid

synonym: Lys

magnesium/calcium

definition: the elemental ratio of magnesium to calcium.

broader term: element or compound ratio

manganese/calcium

definition: the elemental ratio of manganese to calcium.

broader term: element or compound ratio

Melonis barleeanus

definition: a particular species of the genus Melonis

(TSN: 46048; urn:lsid:marinespecies.org:taxname:113563).

broader term: Melonis sp.

Melonis sp.

definition: any foraminifer that belongs to the genus Melonis

(TSN: 46045; urn:lsid:marinespecies.org:taxname:112230).

broader term: calcareous benthic foraminifer

narrower term: Melonis barleeanus

methane

definition: an alkane that has the formula CH₄ (CHEBI: 16183).

broader term: n-alkane

synonym: CH₄

methionine

definition: an amino acid with the formula C₅H₁₁NO₂S (CHEBI: 16811).

broader term: amino acid

synonym: Met

midge

definition: an identifiable organism that belongs to one of several families in the kingdom Animalia, phylum Arthropoda, class Insecta, order Diptera (TSN: 118831).

broader term: organism

midge assemblage

definition: an assemblage of organisms that belong to one of several families in the kingdom Animalia, phylum Arthropoda, class Insecta, order Diptera (TSN: 118831).

broader term: biological assemblage

mixed calcite/aragonite

definition: a calcium carbonate with mixed orthorhombic and rhombohedral crystal structure.

broader term: calcium carbonate

Montastraea cavernosa

definition: a particular species of the genus Montastraea that is commonly known as great star coral or false knob coral (TSN: 53255; urn:lsid:marinespecies.org:taxname:287962).

broader term: Montastraea sp.

Montastraea sp.

definition: any coral that belongs to the genus *Montastraea* (TSN 53254; urn:lsid:marinespecies.org:taxname:204717).

broader term: coral

narrower term: *Montastraea cavernosa*

multiple proxies

definition: a material used to create a climate reconstruction that consists of proxies from more than two proxy data types. List only "climate reconstructions" as the data type (i.e., don't list proxy data types in the "data type" field) and use this term for the "material" field.

broader term: reconstruction material

Muricella sp.

definition: any coral that belongs to the genus *Muricella* (urn:lsid:marinespecies.org:taxname:267602).

broader term: coral

Mussismilia braziliensis

definition: a particular species of the genus *Mussismilia* (TSN: 53491; urn:lsid:marinespecies.org:taxname:290421).

broader term: *Mussismilia* sp.

synonym: *Acanthastraea braziliensis*

Mussismilia sp.

definition: any coral that belongs to the genus *Mussismilia* (TSN: 53490; urn:lsid:marinespecies.org:taxname:267605).

broader term: coral

narrower term: *Mussismilia braziliensis*

n-alkane

definition: an alkane that has a linear, or straight chain, structure.

broader term: alkane

narrower term: C21 n-alkane

narrower term: C22 n-alkane

narrower term: C23 n-alkane

narrower term: C24 n-alkane

narrower term: C25 n-alkane

narrower term: C26 n-alkane

narrower term: C27 n-alkane

narrower term: C28 n-alkane

narrower term: C29 n-alkane

narrower term: C30 n-alkane

narrower term: C31 n-alkane

narrower term: C32 n-alkane

narrower term: C33 n-alkane

narrower term: C34 n-alkane

narrower term: C35 n-alkane

narrower term: methane

n-alkanoic acid

definition: a saturated fatty acid with the general formula $C_nH_{2n+1}COOH$.

broader term: fatty acid

narrower term: C16 n-alkanoic acid

narrower term: C17 n-alkanoic acid

narrower term: C18 n-alkanoic acid
narrower term: C19 n-alkanoic acid
narrower term: C20 n-alkanoic acid
narrower term: C21 n-alkanoic acid
narrower term: C22 n-alkanoic acid
narrower term: C23 n-alkanoic acid
narrower term: C24 n-alkanoic acid
narrower term: C25 n-alkanoic acid
narrower term: C26 n-alkanoic acid
narrower term: C27 n-alkanoic acid
narrower term: C28 n-alkanoic acid
narrower term: C29 n-alkanoic acid
narrower term: C30 n-alkanoic acid
narrower term: C31 n-alkanoic acid
narrower term: C32 n-alkanoic acid
narrower term: C33 n-alkanoic acid
narrower term: C34 n-alkanoic acid

n-alkanol

broader term: organic hydroxy compound

Neogloboquadrina dutertrei

definition: a particular species of the genus *Neogloboquadrina* (urn:lsid:marinespecies.org:taxname:113473).

broader term: *Neogloboquadrina* sp.

Neogloboquadrina incompta

definition: a particular species of the genus *Neogloboquadrina* (urn:lsid:marinespecies.org:taxname:113474).

broader term: *Neogloboquadrina* sp.

Neogloboquadrina pachyderma

definition: a particular species of the genus *Neogloboquadrina* (urn:lsid:marinespecies.org:taxname:113458).

broader term: *Neogloboquadrina* sp.

narrower term: *Neogloboquadrina pachyderma* dextral

narrower term: *Neogloboquadrina pachyderma* sinistral

Neogloboquadrina pachyderma dextral

definition: the right-coiling morphotype of *Neogloboquadrina pachyderma*.

broader term: *Neogloboquadrina pachyderma*

Neogloboquadrina pachyderma sinistral

definition: the left-coiling morphotype of *Neogloboquadrina pachyderma*.

broader term: *Neogloboquadrina pachyderma*

Neogloboquadrina sp.

definition: any foraminifer that belongs to the genus *Neogloboquadrina* (urn:lsid:marinespecies.org:taxname:112202).

broader term: planktic foraminifer

narrower term: *Neogloboquadrina dutertrei*

narrower term: *Neogloboquadrina incompta*

narrower term: *Neogloboquadrina pachyderma*

nitrate

definition: an inorganic compound that has the chemical formula NO_3^- (CHEBI: 17632).

broader term: inorganic compound

synonym: NO_3^-

nitrogen gas

definition: nitrogen that exists as a diatomic gas.

broader term: element or single-element molecule

synonym: N_2

nitrous oxide

definition: an inorganic compound that has the chemical formula N_2O .

broader term: inorganic compound

synonym: N_2O

non-sea-salt sulfate

definition: sulfate that is derived from sources other than sea salt.

broader term: sulfate

synonym: nss sulfate

synonym: nss sulphate

Nuttallides sp.

definition: any foraminifer that belongs to the genus *Nuttallides*

([urn:lsid:marinespecies.org:taxname:112089](https://marinespecies.org/taxname/112089)).

broader term: calcareous benthic foraminifer

narrower term: *Nuttallides umbonifera*

Nuttallides umbonifera

definition: a particular species of the genus *Nuttallides* ([urn:lsid:marinespecies.org:taxname:466429](https://marinespecies.org/taxname/466429)).

broader term: *Nuttallides* sp.

Orbicella annularis

definition: a particular species of the genus *Orbicella* that is commonly known as the Caribbean star coral or the boulder star coral ([urn:lsid:marinespecies.org:taxname:758260](https://marinespecies.org/taxname/758260)).

broader term: *Orbicella* sp.

synonym: *Montastraea annularis*

Orbicella faveolata

definition: a particular species of the genus *Orbicella* that is commonly known as the mountainous star coral ([urn:lsid:marinespecies.org:taxname:758261](https://marinespecies.org/taxname/758261)).

broader term: *Orbicella* sp.

synonym: *Montastraea faveolata*

Orbicella franksi

definition: a particular species of the genus *Orbicella* that is commonly known as the boulder star coral ([urn:lsid:marinespecies.org:taxname:758262](https://marinespecies.org/taxname/758262)).

broader term: *Orbicella* sp.

Orbicella sp.

definition: any coral that belongs to the genus *Orbicella* ([urn:lsid:marinespecies.org:taxname:758259](https://marinespecies.org/taxname/758259)).

broader term: coral
narrower term: *Orbicella annularis*
narrower term: *Orbicella faveolata*
narrower term: *Orbicella franksi*

Orbulina sp.

definition: any foraminifer that belongs to the genus *Orbulina* (TSN: 45816; urn:lsid:marinespecies.org:taxname:112203).
broader term: planktic foraminifer
narrower term: *Orbulina universa*

Orbulina universa

definition: a particular species of the genus *Orbulina* (TSN: 45817; urn:lsid:marinespecies.org:taxname:113460).
broader term: *Orbulina* sp.

organic compound

definition: a compound that consists of one or more atoms of carbon covalently linked to atoms of other elements, most commonly hydrogen, oxygen, or nitrogen.
broader term: compound
narrower term: aromatic compound
narrower term: hydrocarbon
narrower term: organic hydroxy compound
narrower term: organooxygen compound

organic compound index

broader term: reconstruction material
narrower term: alkenone unsaturation index
narrower term: glycerol dialkyl glycerol tetraether index

organic hydroxy compound

definition: an organic compound having at least one hydroxy group attached to a carbon atom (CHEBI: 33822).
broader term: organic compound
narrower term: alcohol
narrower term: glycerol dialkyl glycerol tetraether
narrower term: n-alkanol
narrower term: sterol

organic matter

definition: a bulk biological material that consists of complex substances of mainly carbon, hydrogen, and oxygen with subordinate amounts of nitrogen, sulfur, and other elements, produced by the growth of organisms (Smol et al. 2001 Tracking Environmental Change Using Lake Sediments).
broader term: bulk biological material

organism

definition: a biological material that allows for the taxonomic identification, either broadly or generally, of an individual animal, plant, or single-celled life form.
broader term: biological material
narrower term: bivalve
narrower term: cladoceran
narrower term: coccolithophore

narrower term: coral
narrower term: coralline algae
narrower term: diatom
narrower term: fish
narrower term: foraminifer
narrower term: gastropod
narrower term: midge
narrower term: ostracod
narrower term: sponge

organooxygen compound

broader term: organic compound
narrower term: acetic acid
narrower term: amino acid
narrower term: cellulose
narrower term: fatty acid
narrower term: ketone

Oridorsalis sp.

definition: any foraminifer that belongs to the genus Oridorsalis (TSN: 46032; urn:lsid:marinespecies.org:taxname:112178).
broader term: calcareous benthic foraminifer
narrower term: Oridorsalis umbonatus

Oridorsalis umbonatus

definition: a particular species of the genus Oridorsalis (urn:lsid:marinespecies.org:taxname:254690).
broader term: Oridorsalis sp.

ostracod

definition: an identifiable organism that belongs to the kingdom Animalia, phylum Arthropoda, class Ostracoda (TSN: 84195).
broader term: organism

ostracod assemblage

definition: an assemblage of organisms that belong to the kingdom Animalia, phylum Arthropoda, class Ostracoda (TSN: 84195).
broader term: biological assemblage

oxygen gas

definition: oxygen that exists as a diatomic gas.
broader term: element or single-element molecule
synonym: O₂

palmitic acid

definition: a fatty acid with the formula C₁₆H₃₂O₂ (CHEBI: 15756).
broader term: fatty acid
synonym: hexadecanoic acid

particles

definition: a bulk geological material that consists of a small quantity of a substance that is measurable in its size or composition.
broader term: bulk geological material

Pavona clavus

definition: a particular species of the genus Pavona that is commonly known as the leaf coral (TSN: 53070; urn:lsid:marinespecies.org:taxname:207318).

broader term: Pavona sp.

Pavona gigantea

definition: a particular species of the genus Pavona that is commonly known as the leaf coral (TSN: 53075; urn:lsid:marinespecies.org:taxname:289201).

broader term: Pavona sp.

Pavona sp.

definition: any coral that belongs to the genus Pavona (TSN: 53066; urn:lsid:marinespecies.org:taxname:206614).

broader term: coral

narrower term: Pavona clavus

narrower term: Pavona gigantea

peat

definition: a bulk biological material that consists of an unconsolidated combustible deposit of partially carbonized plant remains, common in bogs, fens, and lakes in tundra or periglacial regions (Smol et al. 2001 Tracking Environmental Change Using Lake Sediments).

broader term: bulk biological material

phenylalanine

definition: an amino acid with the formula C₉H₁₁NO₂ (CHEBI: 28044).

broader term: amino acid

synonym: Phe

physical measurement

definition: a material used to create a climate reconstruction that is a measurement of a physical characteristic (e.g., electromagnetic property, formation property, other physical property) of a substance.

broader term: reconstruction material

narrower term: extension rate

narrower term: growth rate

narrower term: luminescence

narrower term: ring density

narrower term: ring width

narrower term: varve thickness

planktic foraminifer

definition: a foraminifer who lives floating in the water column.

broader term: foraminifer

narrower term: Globigerina sp.

narrower term: Globigerinella sp.

narrower term: Globigerinoides sp.

narrower term: Globorotalia sp.

narrower term: Neogloboquadrina sp.

narrower term: Orbulina sp.

narrower term: Pulleniatina sp.

narrower term: Trilobatus sp.

Planulina sp.

definition: any foraminifer that belongs to the genus *Planulina* (urn:lsid:marinespecies.org:taxname:112091).
broader term: calcareous benthic foraminifer

Platygyra daedalea

definition: a particular species of the genus *Platygyra* that is commonly known as the lesser valley coral (TSN: 53318; urn:lsid:marinespecies.org:taxname:207489).
broader term: *Platygyra* sp.
synonym: *Platygyra rustica*

Platygyra lamellina

definition: a particular species of the genus *Platygyra* that is commonly known as the lesser valley coral (TSN: 53319; urn:lsid:marinespecies.org:taxname:207487).
broader term: *Platygyra* sp.

Platygyra sp.

definition: any coral that belongs to the genus *Platygyra* (TSN: 53317; urn:lsid:marinespecies.org:taxname:206621).
broader term: coral
narrower term: *Platygyra daedalea*
narrower term: *Platygyra lamellina*

Pocillopora damicornus

definition: a particular species of the genus *Pocillopora* that is commonly known as the cauliflower coral (TSN: 53018; urn:lsid:marinespecies.org:taxname:206953).
broader term: *Pocillopora* sp.

Pocillopora sp.

definition: any coral that belongs to the genus *Pocillopora* (TSN: 53017; urn:lsid:marinespecies.org:taxname:206938).
broader term: coral
narrower term: *Pocillopora damicornus*

Porites astreoides

definition: a particular species of the genus *Porites* that is commonly known as the yellow porites or the mustard hill coral (TSN: 53184; urn:lsid:marinespecies.org:taxname:288889).
broader term: *Porites* sp.

Porites australiensis

definition: a particular species of the genus *Porites* that is commonly known as the hump coral (TSN: 53196; urn:lsid:marinespecies.org:taxname:207249).
broader term: *Porites* sp.

Porites evermanni

definition: a particular species of the genus *Porites* that is commonly known as the hump coral (TSN: 572395; urn:lsid:marinespecies.org:taxname:288900).
broader term: *Porites* sp.

Porites lobata

definition: a particular species of the genus *Porites* that is commonly known as the lobe coral (TSN: 53194; urn:lsid:marinespecies.org:taxname:207225).

broader term: *Porites* sp.

Porites lutea

definition: a particular species of the genus *Porites* that is commonly known as the hump coral or the pore coral (TSN: 53192; urn:lsid:marinespecies.org:taxname:207246).

broader term: *Porites* sp.

Porites solida

definition: a particular species of the genus *Porites* that is commonly known as the hump coral or boulder coral (TSN: 53193; urn:lsid:marinespecies.org:taxname:207227).

broader term: *Porites* sp.

Porites sp.

definition: any coral that belongs to the genus *Porites* (TSN: 53178; urn:lsid:marinespecies.org:taxname:206485).

broader term: coral

narrower term: *Porites astreoides*

narrower term: *Porites australiensis*

narrower term: *Porites evermanni*

narrower term: *Porites lobata*

narrower term: *Porites lutea*

narrower term: *Porites solida*

precipitation

definition: a hydrologic material that consists of rain, snow, sleet or hail that falls to the ground.

broader term: hydrologic material

narrower term: snow

proline

definition: an amino acid with the formula C₅H₉NO₂ (CHEBI: 26271).

broader term: amino acid

synonym: Pro

Pseudodiploria sp.

definition: any coral that belongs to the genus *Pseudodiploria* (urn:lsid:marinespecies.org:taxname:718588).

broader term: coral

narrower term: *Pseudodiploria strigosa*

Pseudodiploria strigosa

definition: a particular species of the genus *Pseudodiploria* that is commonly known as symmetrical brain coral (TSN: 53287; urn:lsid:marinespecies.org:taxname:718718).

broader term: *Pseudodiploria* sp.

synonym: *Diploria strigosa*

Pulleniatina obliquiloculata

definition: a particular species of the genus *Pulleniatina* (urn:lsid:marinespecies.org:taxname:221331).

broader term: *Pulleniatina* sp.

Pulleniatina sp.

definition: any foraminifer that belongs to the genus *Pulleniatina* (urn:lsid:marinespecies.org:taxname:203961).

broader term: planktic foraminifer
narrower term: Pulleniatina obliquiloculata

quartz

definition: a silicate with the formula SiO₂ (Dana 8th ed.: 75.1.3.1; Nickel-Strunz 10th (pending) ed.: 4.DA.05; <https://www.mindat.org/min-3337.html>).
broader term: identified mineral

radiolarian assemblage

definition: an assemblage of organisms that belong to the kingdom Protozoa, order Radiolaria (TSN: 46088).
broader term: biological assemblage

reconstruction material

broader term: material
narrower term: biological assemblage
narrower term: element or compound ratio
narrower term: isotope ratio
narrower term: multiple proxies
narrower term: organic compound index
narrower term: physical measurement

ring density

definition: the density of all or of some subcomponent of wood within one annual ring from a tree.
broader term: physical measurement

ring width

definition: the width of all or of some subcomponent of one annual ring from a tree.
broader term: physical measurement

river water

definition: a hydrologic material that consists of water sampled from a river.
broader term: hydrologic material

rock

definition: an aggregate of one or more minerals (e.g., granite, shale, marble) or a body of undifferentiated mineral matter (e.g., obsidian) or of solid organic matter (e.g., coal) (Dictionary of Geological Terms).
broader term: bulk geological material

sclerosponge

definition: an identifiable organism that belongs to kingdom Animalia, phylum Porifera, class Demospongiae (TSN: 47528; urn:lsid:marinespecies.org:taxname:164811).
broader term: sponge
narrower term: Astrosclera sp.
narrower term: Ceratoporella sp.

sea surface

definition: a hydrologic material that consists of water sampled from the surface of the ocean.
broader term: sea water

sea water

definition: a hydrologic material that consists of water sampled from any level of the ocean.

broader term: hydrologic material
narrower term: sea surface

sediment

definition: a bulk geological material that consists of particles that settle to the bottom of a liquid, such as a lake or the ocean.
broader term: bulk geological material
narrower term: dry sediment
narrower term: wet sediment

sediment pore water

definition: a hydrologic material that consists of water filling the pores of a sediment sample.
broader term: hydrologic material

serine

definition: an amino acid with the formula C₃H₇NO₃ (CHEBI: 17822).
broader term: amino acid
synonym: Ser

Siderastrea radians

definition: a particular species of the genus *Siderastrea* that is commonly known as the lesser starlet coral (TSN: 53091; urn:lsid:marinespecies.org:taxname:207517).
broader term: *Siderastrea* sp.

Siderastrea siderea

definition: a particular species of the genus *Siderastrea* that is commonly known as the massive starlet coral (TSN: 53090; urn:lsid:marinespecies.org:taxname:207516).
broader term: *Siderastrea* sp.

Siderastrea sp.

definition: any coral that belongs to the genus *Siderastrea* (TSN: 53089; urn:lsid:marinespecies.org:taxname:204291).
broader term: coral
narrower term: *Siderastrea radians*
narrower term: *Siderastrea siderea*

snow

definition: precipitation in the form of ice crystals.
broader term: precipitation

soil

definition: the upper layer of the earth that consists of minerals, organic material, water, air, and organisms.
broader term: bulk geological material

Solenastrea bournoni

definition: a particular species of the genus *Solenastrea* that is commonly known as the smooth star coral (TSN: 53253; urn:lsid:marinespecies.org:taxname:291054).
broader term: *Solenastrea* sp.

Solenastrea sp.

definition: any coral that belongs to the genus *Solenastrea* (TSN: 53251; urn:lsid:marinespecies.org:taxname:267842).
broader term: coral
narrower term: *Solenastrea bournoni*

soluble acetic acid
definition: acetic acid that is soluble.
broader term: acetic acid

sponge
definition: an identifiable organism that belongs to the kingdom Animalia, phylum Porifera (TSN: 46861).
broader term: organism
narrower term: sclerosponge

sterol
definition: an organic hydroxy compound that has a hydroxyl group at the 3-position of the A-ring (CHEBI: 15889).
broader term: organic hydroxy compound
narrower term: brassicasterol
narrower term: cholesterol
narrower term: dinosterol
narrower term: taraxerol

strontium/calcium
definition: the elemental ratio of strontium to calcium.
broader term: element or compound ratio

sulfate
definition: an inorganic compound that has the formula SO_4^{2-} .
broader term: inorganic compound
synonym: SO_4^{2-}
synonym: sulphate
narrower term: non-sea-salt sulfate

taraxerol
definition: a sterol that has the chemical formula $\text{C}_{30}\text{H}_{50}\text{O}$ (CHEBI: 9402).
broader term: sterol

testate amoebae assemblage
definition: an assemblage of organisms that are an ameboid protist with a test and that belong to the kingdom Protozoa.
broader term: biological assemblage

threonine
definition: an amino acid with the formula $\text{C}_4\text{H}_9\text{NO}_2$ (CHEBI: 26986).
broader term: amino acid
synonym: Thr

tissue
definition: a biological material that consists of an ensemble of similar cells from the same origin that together carry out a similar function.
broader term: biological material

narrower term: wood

Trilobatus sacculifer

definition: a particular species of the genus *Trilobatus* (urn:lsid:marinespecies.org:taxname:1026286).

broader term: *Trilobatus* sp.

synonym: *Globigerinoides sacculifer*

narrower term: *Trilobatus sacculifer* with sac

narrower term: *Trilobatus sacculifer* without sac

Trilobatus sacculifer with sac

definition: a morphotype of *Trilobatus sacculifer* that has a sac-like terminal chamber.

broader term: *Trilobatus sacculifer*

Trilobatus sacculifer without sac

definition: a morphotype of *Trilobatus sacculifer* that lacks a sac-like terminal chamber.

broader term: *Trilobatus sacculifer*

Trilobatus sp.

definition: any foraminifer that belongs to the genus *Trilobatus* (urn:lsid:marinespecies.org:taxname:1026284).

broader term: planktic foraminifer

narrower term: *Trilobatus sacculifer*

tryptophan

definition: an amino acid with the formula C₁₁H₁₂N₂O₂ (CHEBI: 27897).

broader term: amino acid

synonym: Trp

tyrosine

definition: an amino acid with the formula C₉H₁₁NO₃ (CHEBI: 18186).

broader term: amino acid

synonym: Tyr

uranium/calcium

definition: the elemental ratio of uranium to calcium.

broader term: element or compound ratio

Uvigerina peregrina

definition: a particular species of the genus *Uvigerina* (TSN: 45437; urn:lsid:marinespecies.org:taxname:113773).

broader term: *Uvigerina* sp.

Uvigerina sp.

definition: any foraminifer that belongs to the genus *Uvigerina* (TSN: 45436; urn:lsid:marinespecies.org:taxname:112281).

broader term: calcareous benthic foraminifer

narrower term: *Uvigerina peregrina*

valine

definition: an amino acid with the formula C₅H₁₁NO₂ (CHEBI: 27266).

broader term: amino acid

synonym: Val

varve thickness

definition: the thickness of a sublayer of or an entire annually-resolved varve in a sediment sequence.

broader term: physical measurement

volcanic material

definition: mineral matter that consists of particles that originated from a volcano.

broader term: bulk geological material

wet sediment

definition: sediment that contains water.

broader term: sediment

wood

definition: a porous and fibrous structural tissue that is found in the stems and roots of trees and other woody plants (Wikipedia).

broader term: tissue

narrower term: earlywood

narrower term: latewood

error

definition: measures of the temporally-variable uncertainty that applies to the measured value.

narrower term: confidence interval

narrower term: ensemble member

narrower term: goodness-of-fit measure

narrower term: percentile

narrower term: range

narrower term: standard deviation

narrower term: standard error

narrower term: unspecified error

narrower term: variance

68% confidence interval lower bound

definition: the lower (minimum) bound of the confidence interval that captures the true value 68% of the time.

broader term: confidence interval

68% confidence interval margin of error

definition: the value, that when added to and subtracted from the mean estimate, creates a confidence interval that captures the true value 68% of the time.

broader term: confidence interval

68% confidence interval upper bound

definition: the upper (maximum) bound of the confidence interval that captures the true value 68% of the time.

broader term: confidence interval

90% confidence interval lower bound

definition: the lower (minimum) bound of the confidence interval that captures the true value 90% of the time.

broader term: confidence interval

90% confidence interval margin of error

definition: the value, that when added to and subtracted from the mean estimate, creates a confidence interval that captures the true value 90% of the time.

broader term: confidence interval

90% confidence interval upper bound

definition: the upper (maximum) bound of the confidence interval that captures the true value 90% of the time.

broader term: confidence interval

95% confidence interval lower bound

definition: the lower (minimum) bound of the confidence interval that captures the true value 95% of the time.

broader term: confidence interval

95% confidence interval margin of error

definition: the value, that when added to and subtracted from the mean estimate, creates a confidence interval that captures the true value 95% of the time.

broader term: confidence interval

95% confidence interval upper bound

definition: the upper (maximum) bound of the confidence interval that captures the true value 95% of the time.

broader term: confidence interval

97.5% confidence interval lower bound

definition: the lower (minimum) bound of the confidence interval that captures the true value 97.5% of the time.

broader term: confidence interval

97.5% confidence interval margin of error

definition: the value, that when added to and subtracted from the mean estimate, creates a confidence interval that captures the true value 97.5% of the time.

broader term: confidence interval

97.5% confidence interval upper bound

definition: the upper (maximum) bound of the confidence interval that captures the true value 97.5% of the time.

broader term: confidence interval

99% confidence interval lower bound

definition: the lower (minimum) bound of the confidence interval that captures the true value 99% of the time.

broader term: confidence interval

99% confidence interval margin of error

definition: the value, that when added to and subtracted from the mean estimate, creates a confidence interval that captures the true value 99% of the time.

broader term: confidence interval

99% confidence interval upper bound

definition: the upper (maximum) bound of the confidence interval that captures the true value 99% of the time.

broader term: confidence interval

average correlation coefficient

definition: an extension of the correlation coefficient that measures the common variance between series in a tree ring chronology and that is calculated by taking the average of the correlations calculated between all series.

broader term: correlation coefficient

synonym: \bar{r}

synonym: r-bar

synonym: RBAR

bias

definition: a goodness-of-fit measure that measures a systematic difference between the predictand and the predictor and is calculated as the difference between the average prediction and the average observed value.

broader term: goodness-of-fit measure

calibration coefficient of determination

definition: a coefficient of determination that quantifies the percent of instrumental variable variance explained by a reconstruction of the the calibration period. It ranges from 0 (no calibrated variance) to 1.0 (perfect agreement between instrumental and reconstructed time series).

broader term: coefficient of determination

synonym: calibration R-squared

synonym: calibration R2

synonym: calibration r2

calibration leave-one-out cross-validation reduction of error

definition: a coefficient of determination that quantifies whether a statistical or physically-based model is a better predictor of observed values than the mean climatology of the observed period and that is calculated as: $1 - (\sum((\text{observed} - \text{predicted})^2)/n) / (\sum((\text{observed} - \text{verification climatology})^2)/n)$, where each of the n data points is used to both train (calibrate) and test (validate) the model but never at the same time and the the measure is an average of the reduction of error over the n trials

broader term: coefficient of determination

chi-square

definition: a goodness-of-fit measure that quantifies how observed data fits expected data and that is calculated as the sum of $((\text{observed} - \text{expected})^2 / \text{expected})$.

broader term: goodness-of-fit measure

synonym: X2

coefficient of determination

definition: a goodness-of-fit measure that is is the proportion of the variance in the dependent variable that is predictable from the independent variable(s).

broader term: goodness-of-fit measure

synonym: R squared

synonym: R-squared

synonym: r2

synonym: R2

narrower term: calibration coefficient of determination

narrower term: calibration leave-one-out cross-validation reduction of error

narrower term: verification coefficient of determination

narrower term: verification coefficient of efficiency

narrower term: verification reduction of error

communality

definition: a goodness-of-fit measure that quantifies the proportion of a variable's total variance that is accounted for by certain factors or principal components.

broader term: goodness-of-fit measure

confidence interval

definition: an error estimate that measures the span of values likely to contain the true value at a specified confidence level.

broader term: error

narrower term: 68% confidence interval lower bound

narrower term: 68% confidence interval margin of error
narrower term: 68% confidence interval upper bound
narrower term: 90% confidence interval lower bound
narrower term: 90% confidence interval margin of error
narrower term: 90% confidence interval upper bound
narrower term: 95% confidence interval lower bound
narrower term: 95% confidence interval margin of error
narrower term: 95% confidence interval upper bound
narrower term: 97.5% confidence interval lower bound
narrower term: 97.5% confidence interval margin of error
narrower term: 97.5% confidence interval upper bound
narrower term: 99% confidence interval lower bound
narrower term: 99% confidence interval margin of error
narrower term: 99% confidence interval upper bound

correlation coefficient

definition: a goodness-of-fit measure that quantifies the strength and direction of the linear relationship between two variables and that is defined as the (sample) covariance of the variables divided by the product of their (sample) standard deviations.
broader term: goodness-of-fit measure
synonym: r
synonym: R
narrower term: average correlation coefficient
narrower term: expressed population signal

dissimilarity measure

definition: a goodness-of-fit measure that quantifies the relative similarity between a sample and its modern analogue for an analogue method calculation.
broader term: goodness-of-fit measure
narrower term: squared chord distance

ensemble member

definition: one of a series of realizations that are all equally probable and that together specify the likeliness of certain values being the true value.
broader term: error

expressed population signal

definition: an extension of the correlation coefficient that quantifies how well a chronology based on a finite number of trees represents the hypothetical perfect or true chronology and that is calculated as: $(n \cdot \text{RBAR}) / (n \cdot \text{RBAR} + 1 - \text{RBAR})$ where n is the number of trees and RBAR is the mean intertree correlation coefficient.
broader term: correlation coefficient
synonym: EPS

goodness-of-fit measure

definition: an error measure that quantifies how well a statistical or physically-based model fits a set of observations.
broader term: error
narrower term: bias
narrower term: chi-square
narrower term: coefficient of determination
narrower term: communality

narrower term: correlation coefficient
narrower term: dissimilarity measure
narrower term: root mean square error

one root mean square error

definition: a goodness-of-fit measure that is defined as the sample standard deviation of the differences between predicted values and observed values, or $\sqrt{\text{sum}(\text{predicted}-\text{observed})^2/\text{sample size}}$. Actual values are within one root mean square error of the predicted value 68% of the time.

broader term: root mean square error

one root mean square error lower bound

definition: the root mean square error subtracted from the predicted value, which yields a lower (minimum) bound of an interval that captures actual values 68% of the time.

broader term: root mean square error

one root mean square error upper bound

definition: the root mean square error added to the predicted value, which yields an upper (maximum) bound of an interval that captures actual values 68% of the time.

broader term: root mean square error

one standard deviation

definition: a measure that is defined as the square root of the sum of the square difference of individual observations from the mean divided by the total number of observations. If the data is distributed approximately normally and the sample size is large, about 68% of the observations will fall within one standard deviation of the mean.

broader term: standard deviation

one standard deviation lower bound

definition: a measure that is defined as the mean minus one standard deviation. If the data is distributed approximately normally and the sample size is large, this measure defines the minimum value of the interval that captures about 68% of the observations.

broader term: standard deviation

one standard deviation upper bound

definition: a measure that is defined as the mean plus one standard deviation. If the data is distributed approximately normally and the sample size is large, this measure defines the maximum value of the interval that captures about 68% of the observations.

broader term: standard deviation

one standard error

definition: a measure of how far the sample mean is expected to deviate from its actual value calculated as the sample standard deviation divided by the square root of the sample size. This value is approached by a 68% confidence interval margin of error at large sample sizes.

broader term: standard error

one standard error lower bound

definition: the lower bound (minimum) estimate of the actual mean calculated by subtracting one standard error from the sample mean. This value is approached by a 68% confidence interval lower bound at large sample sizes.

broader term: standard error

one standard error upper bound

definition: the upper bound (maximum) estimate of the actual mean calculated by adding one standard error from the sample mean. This value is approached by a 68% confidence interval upper bound at large sample sizes.

broader term: standard error

percentile

definition: the value below which a given percentage of observations in a group of observations fall. The specific percentile being reported (e.g., 20th percentile) should be specified in the "Additional Information" field.

broader term: error

range

definition: an error estimate that is the difference between the highest and lowest possible values.

broader term: error

narrower term: range lower bound

narrower term: range upper bound

range lower bound

definition: the minimum value from which the range is calculated.

broader term: range

synonym: minimum

range upper bound

definition: the maximum value from which the range is calculated.

broader term: range

synonym: maximum

relative standard deviation

definition: a standard deviation that is calculated as 100 multiplied by the sample standard deviation divided by the sample mean. It describes whether the standard deviation is large or small compared to the mean.

broader term: standard deviation

root mean square error

definition: a goodness-of-fit measure that measures the differences between values predicted by a model or an estimator and the values actually observed.

broader term: goodness-of-fit measure

synonym: RMSE

narrower term: one root mean square error

narrower term: one root mean square error lower bound

narrower term: one root mean square error upper bound

narrower term: two root mean square error

narrower term: two root mean square error lower bound

narrower term: two root mean square error upper bound

narrower term: verification root mean square error

squared chord distance

definition: a dissimilarity measure that is calculated as the proportional representation of a species P $(P_{ij}^{1/2} - P_{ik}^{1/2})^2$ summed across all species i for two samples j and k .

broader term: dissimilarity measure

standard deviation

definition: a measure of the amount of variation or dispersion across a group of data values.

broader term: error

narrower term: one standard deviation

narrower term: one standard deviation lower bound

narrower term: one standard deviation upper bound

narrower term: relative standard deviation

narrower term: two standard deviations

narrower term: two standard deviations lower bound

narrower term: two standard deviations upper bound

standard error

definition: a measure of how far the sample mean is expected to deviate from its actual value, based on the standard deviation of the sample and its size.

broader term: error

narrower term: one standard error

narrower term: one standard error lower bound

narrower term: one standard error upper bound

narrower term: two standard error

narrower term: two standard error lower bound

narrower term: two standard error upper bound

two root mean square error

definition: two times the root mean square error. Actual values are within two root mean square error of the predicted value 95% of the time.

broader term: root mean square error

two root mean square error lower bound

definition: two times the root mean square error subtracted from the predicted value, which yields a lower (minimum) bound of an interval that captures actual values 95% of the time.

broader term: root mean square error

two root mean square error upper bound

definition: two times the root mean square error added to the predicted value, which yields an upper (maximum) bound of an interval that captures actual values 95% of the time.

broader term: root mean square error

two standard deviations

definition: a measure that is defined as two times the square root of the sum of the square difference of individual observations from the mean divided by the total number of observations. If the data is distributed approximately normally and the sample size is large, about 95% of the observations will fall within two standard deviations of the mean.

broader term: standard deviation

two standard deviations lower bound

definition: a measure that is defined as the mean minus two standard deviations. If the data is distributed approximately normally and the sample size is large, this measure defines the minimum value of the interval that captures about 95% of the observations.

broader term: standard deviation

two standard deviations upper bound

definition: a measure that is defined as the mean plus two standard deviations. If the data is distributed approximately normally and the sample size is large, this measure defines the maximum value of the interval that captures about 95% of the observations.

broader term: standard deviation

two standard error

definition: a measure of how far the sample mean is expected to deviate from its actual value calculated as two times the sample standard deviation divided by the square root of the sample size. This value is approached by a 95% confidence interval margin of error at large sample sizes.

broader term: standard error

two standard error lower bound

definition: the lower bound (minimum) estimate of the actual mean calculated by subtracting two standard errors from the sample mean. This value is approached by a 95% confidence interval lower bound at large sample sizes.

broader term: standard error

two standard error upper bound

definition: the upper bound (maximum) estimate of the actual mean calculated by adding one standard error from the sample mean. This value is approached by a 95% confidence interval upper bound at large sample sizes.

broader term: standard error

unspecified error

definition: a measurement of error without explanation of its source or significance. These terms should be used only for legacy studies lacking explanatory information.

broader term: error

narrower term: unspecified error lower bound

narrower term: unspecified error upper bound

narrower term: unspecified margin of error

unspecified error lower bound

definition: the lower (minimum) bound of the interval believed to capture the true value according to an unspecified calculation. This term should be used only for legacy studies lacking explanatory information.

broader term: unspecified error

unspecified error upper bound

definition: the upper (maximum) bound of the interval believed to capture the true value according to an unspecified calculation. This term should be used only for legacy studies lacking explanatory information.

broader term: unspecified error

unspecified margin of error

definition: the value, that when added to and subtracted from the mean estimate, creates a interval that is believed to capture the true value according to an unspecified calculation. This term should be used only for legacy studies lacking explanatory information.

broader term: unspecified error

variance

definition: a measure that is defined as the sum of the square difference of individual observations from the mean divided by the total number of observations.

broader term: error

verification coefficient of determination

definition: a coefficient of determination that quantifies the percent of instrumental variable variance explained by a reconstruction of the verification period (i.e., the period of the instrumental record not used for calibration). It ranges from 0 (no correlation) to 1.0 (perfect correlation).

broader term: coefficient of determination

synonym: verification R squared

synonym: verification R-squared

synonym: verification r2

synonym: verification R2

verification coefficient of efficiency

definition: A coefficient of determination that quantifies whether a statistical or physically-based model is a better predictor of verification period values than the mean climatology of the verification period and that is calculated as: $1 - (\sum((\text{observed-predicted})^2)/n)/(\sum((\text{observed-verification climatology})^2)/n)$.

broader term: coefficient of determination

synonym: verification CE

verification reduction of error

definition: a coefficient of determination that quantifies whether a statistical or physically-based model is a better predictor of verification period values than the mean climatology of the calibration period and that is calculated as: $1 - (\sum((\text{observed-predicted})^2)/n)/(\sum((\text{observed-calibration climatology})^2)/n)$.

broader term: coefficient of determination

verification root mean square error

definition: the root mean square error applied to the verification period, defined as the sample standard deviation of the differences between predicted values and observed values over the verification period, or $\sqrt{\sum(\text{predicted-observed})^2/\text{sample size}}$.

RT: climate reconstructions

broader term: root mean square error

synonym: verification RMSE

unit

definition: the units of measurement.

narrower term: angle unit

narrower term: area unit

narrower term: concentration unit

narrower term: dimensionless

narrower term: electromagnetic unit

narrower term: energy unit

narrower term: length unit

narrower term: linear density unit

narrower term: mass density unit

narrower term: mass unit

narrower term: mathematical unit

narrower term: molar mass unit

narrower term: power unit

narrower term: pressure unit

narrower term: rate unit

narrower term: specific activity unit

narrower term: specific energy unit

narrower term: specific volume unit

narrower term: substance unit

narrower term: temperature unit

narrower term: time unit

narrower term: unspecified unit

narrower term: volume unit

acre foot

definition: a volume unit that is one acre of surface area to a depth of one foot. This is approximately 1233 cubic meters.

broader term: volume unit

age unit

definition: a time unit that places the occurrence of an event relative to fixed reference point in time.

broader term: time unit

narrower term: billion years ago

narrower term: calendar kiloyear before present

narrower term: calendar year before present

narrower term: day of month

narrower term: day of year

narrower term: hour of day

narrower term: million years ago

narrower term: month of year

narrower term: radiocarbon kiloyear before present

narrower term: radiocarbon year before present

narrower term: year Common Era

ampere

definition: an electric current unit which is equal to the constant current which, if maintained in two straight parallel conductors of infinite length, of negligible circular cross-section, and placed 1 m apart in vacuum, would produce between these conductors a force equal to 2×10^{-7} newton per meter of length (UO:0000011).

broader term: electric current unit

synonym: A

ampere per meter

definition: a magnetic field strength unit that is the strength of the field that is produced at the center of a single circular conductor with a one meter diameter carrying a steady current of 1 ampere.

broader term: magnetic field strength unit

ampere per meter per kilogram

definition: a magnetic field strength unit that is per unit mass of one kilogram.

broader term: magnetic field strength unit

ampere square meter per kilogram

definition: a magnetic moment unit that is the magnetic moment, in ampere square meter, per unit mass, in kilograms.

broader term: magnetic moment unit

angle unit

definition: a unit which is a standard measure of the figure or space formed by the junction of two lines or planes (UO:0000121).

broader term: unit

narrower term: arcminute

narrower term: arcsecond

narrower term: degree

arcminute

definition: an angle unit which is equal to 1/60 of a degree.

broader term: angle unit

arcsecond

definition: an angle unit which is equal to 1/60 of an arcminute.

broader term: angle unit

area per area per time unit

definition: a rate unit that is a standard measure of the area of a material per unit area of sample per time.

broader term: rate unit

narrower term: square micrometer per square centimeter per year

narrower term: square millimeter per square centimeter per year

area unit

definition: a unit which is a standard measure of the amount of a 2-dimensional flat surface (UO:0000047).

broader term: unit

narrower term: peak area integral

narrower term: square kilometer

narrower term: square meter

narrower term: square micrometer

narrower term: square millimeter

billion years ago

definition: an age unit of 10^9 years before present.

broader term: age unit

synonym: giga annum

calendar kiloyear

definition: a duration unit of 10^3 years, calibrated to actual years if derived from radiocarbon dating.

broader term: duration unit

calendar kiloyear before present

definition: an age unit of 10^3 years, calibrated to actual years if derived from radiocarbon dating, before present with present defined as 1950 Common Era. Times after 1950 CE are expressed as negative values.

broader term: age unit

calendar year

definition: a duration unit of years, calibrated to actual years if derived from radiocarbon dating.

broader term: duration unit

calendar year before present

definition: an age unit of years, calibrated to actual years if derived from radiocarbon dating, before present with present defined as 1950 Common Era. Times after 1950 CE are expressed as negative values.

broader term: age unit

synonym: year BP

synonym: yr BP

synonym: yrs BP

calorie

definition: an energy unit that is the energy needed to raise the temperature of 1 gram of water through 1 °C, and that is equivalent to 4.1868 joules.

broader term: energy unit

centimeter

definition: a length unit which is equal to one hundredth of a meter or 10^{-2} m (UO:0000015).

broader term: length unit

synonym: centimetre

synonym: cm

centimeter per kiloyear

definition: a length per time unit that is one hundredth of a meter, or 10^{-2} m, per one thousand years.

broader term: length per time unit

centimeter per second

definition: a length per time unit that is one hundredth of a meter, or 10^{-2} m, per second.

broader term: length per time unit

centimeter per year

definition: a length per time unit that is one hundredth of a meter, or 10^{-2} m, per one year.

broader term: length per time unit

concentration unit

definition: a unit which represents a standard measurement of how much of a given substance there is mixed with another substance (UO:0000051).

broader term: unit

narrower term: count per area unit

narrower term: count per mass unit

narrower term: count per volume unit

narrower term: equivalent per mass unit

narrower term: equivalent per volume unit

narrower term: mass fraction unit

narrower term: molality unit

narrower term: molarity unit

narrower term: mole fraction unit

narrower term: parts per notation unit

narrower term: percent

narrower term: volume area unit

narrower term: volume fraction unit

count

definition: a dimensionless unit that denotes a simple count of things (UO:0000189).

broader term: dimensionless

count per area per time unit

definition: a rate unit that is a standard measure of the occurrence of a counted material per area per time.

broader term: rate unit

narrower term: count per square centimeter per kiloyear

narrower term: count per square centimeter per second

narrower term: count per square centimeter per year

narrower term: count per square meter per second

count per area unit

definition: a concentration unit that is a simple count of the number of units of a given substance, as an agreed arbitrary amount (e.g., atoms, grains, tests), per a specific area of sample.

broader term: concentration unit

narrower term: count per square centimeter

narrower term: count per square meter

narrower term: count per square micrometer

count per century

definition: a count per time unit that is a simple count of the occurrence of a substance per one hundred years.

broader term: count per time unit

count per cubic centimeter

definition: a count per volume unit that applies to one cubic centimeter.

broader term: count per volume unit

count per cubic meter

definition: a count per volume unit that applies to one cubic meter.

broader term: count per volume unit

count per gram

definition: a count per mass unit that applies to one gram.

broader term: count per mass unit

count per gram per second

definition: a count per mass per time unit that is a simple count of a substance per one thousandth of a kilogram, or 10^{-3} kg, of sample per second.

broader term: count per mass per time unit

count per gram per year

definition: a count per mass per time unit that is a simple count of a substance per one thousandth of a kilogram, or 10^{-3} kg, of sample per year.

broader term: count per mass per time unit

count per kilogram

definition: a count per mass unit that applies to one kilogram.

broader term: count per mass unit

count per kilogram per hour

definition: a count per mass per time unit that is a simple count of a substance per kilogram of sample per hour.

broader term: count per mass per time unit

count per liter

definition: a count per volume unit that applies to one liter.

broader term: count per volume unit

count per mass per time unit

definition: a rate unit that is a standard measure of the count of a material per mass of sample per time.

broader term: rate unit

narrower term: count per gram per second

narrower term: count per gram per year

narrower term: count per kilogram per hour

count per mass unit

definition: a concentration unit that is a simple count of the number of units of a given substance, as an agreed arbitrary amount (e.g., atoms, grains, tests), per a specific mass of sample.

broader term: concentration unit

narrower term: count per gram

narrower term: count per kilogram

narrower term: count per microgram

count per microgram

definition: a count per mass unit that applies to one microgram.

broader term: count per mass unit

count per milliliter

definition: a count per volume unit that applies to one milliliter.

broader term: count per volume unit

count per minute

definition: a count per time unit that is a simple count of the occurrence of a substance per one one minute.

broader term: count per time unit

count per second

definition: a count per time unit that is a simple count of the occurrence of a substance per one second.

broader term: count per time unit

count per square centimeter

definition: a count per area unit that applies to an area of one square centimeter, or 10^{-4} square meters.

broader term: count per area unit

count per square centimeter per kiloyear

definition: a count per area per time unit that is a simple count of a substance per one ten-thousandth of a square meter, or 10^{-4} m², and per thousand years, or 10^3 years.

broader term: count per area per time unit

count per square centimeter per second

definition: a count per area per time unit that is a simple count of a substance per one ten-thousandth of a square meter, or 10^{-4} m², and per one second.

broader term: count per area per time unit

count per square centimeter per year

definition: a count per area per time unit that is a simple count of a substance per one ten-thousandth of a square meter, or 10^{-4} m², and per one year.

broader term: count per area per time unit

count per square meter

definition: a count per area unit that applies to an area of one square meter.

broader term: count per area unit

count per square meter per second

definition: a count per area per time unit that is a simple count of a substance per one square meter and per one second.

broader term: count per area per time unit

count per square micrometer

definition: a count per area unit that applies to an area of one square micrometer, or 10^{-12} square meters.

broader term: count per area unit

count per time unit

definition: a rate unit that is a standard measure of the occurrence of a material as indicated by a simple count per unit time.

broader term: rate unit

narrower term: count per century

narrower term: count per minute

narrower term: count per second

narrower term: count per year

count per volume unit

definition: a concentration unit that is a simple count of the number of units of a given substance, as an agreed arbitrary amount (e.g., atoms, grains, tests), per a specific volume of sample (UO: 0000177).

broader term: concentration unit

narrower term: count per cubic centimeter

narrower term: count per cubic meter

narrower term: count per liter

narrower term: count per milliliter

count per year

definition: a count per time unit that is a simple count of the occurrence of a substance per one year.

broader term: count per time unit

cubic centimeter

definition: a volume unit which is equal to one millionth of a cubic meter or 10^{-6} m³, or to 1 ml (UO:0000097).

broader term: volume unit

synonym: cc

synonym: cm³

synonym: cubic centimetre

cubic centimeter per gram

definition: a specific volume unit which is equal to a thousandth of a cubic meter per kilogram or 10^{-3} m³/kg (UO:0000198).

broader term: specific volume unit

synonym: cm³/g

synonym: cubic centimetre per gram

cubic centimeter per kilogram

definition: a specific volume unit which is equal to a millionth of a cubic meter per kilogram or 10^{-6} m³/kg.

broader term: specific volume unit

synonym: cm³/kg

synonym: cubic centimetre per kilogram

cubic centimeter per liter

definition: a volume fraction unit that measures the number of cubic centimeters of one subcomponent of a sample relative to one liter of either another subcomponent or of the entire sample.

broader term: volume fraction unit

cubic centimeter per second

definition: a volume per time unit that is one millionth of a cubic meter, or 10^{-6} m³, per one second.

broader term: volume per time unit

cubic centimeter per square centimeter per kiloyear

definition: a volume per area per time unit that is one millionth of a mole, or 10^{-6} m³, per one ten-thousandth of a square meter, or 10^{-4} m², per one thousand years.

broader term: volume per area per time unit

cubic foot per second

definition: a volume per time unit that is a cubic foot, or approximately 0.283 cubic meters, per one second.

broader term: volume per time unit

cubic kilometer

definition: a volume unit which is equal to one billion cubic meters or 10^9 m^3 .

broader term: volume unit

cubic meter

definition: a volume unit which is equal to the volume of a cube with edges one meter in length. One cubic meter equals to 1000 liters (UO:0000096).

broader term: volume unit

synonym: cubic metre

synonym: m³

cubic meter per kilogram

definition: a specific volume unit which is equal to one cubic meter volume occupied by one kilogram of a particular substance (UO:0000093).

broader term: specific volume unit

synonym: cubic metre per kilogram

synonym: m³/kg

cubic meter per second

definition: a volume per time unit that is one cubic meter per one second.

broader term: volume per time unit

narrower term: sverdrup

cubic meter per second per hundred meters

definition: a volume per time per length unit that is cubic meters per second per one hundred meters, often used to measure a rate of coastal upwelling per one hundred meters of coastline.

broader term: volume per time per length unit

cubic meter per year

definition: a volume per time unit that is one cubic meter per one year.

broader term: volume per time unit

cubic millimeter

definition: a volume unit which is equal to one billionth of a cubic meter or 10^{-9} m^3 .

broader term: volume unit

day

definition: a duration unit that is equal to 24 hours (UO:0000033).

broader term: duration unit

day of month

definition: an age unit of day position in the month, starting with the first day of the month.

broader term: age unit

day of year

definition: an age unit of day position in the year, starting with January 1.

broader term: age unit

degree

definition: an angle unit which is equal to 1/360 of a full rotation or 1.7453310^{-2} rad (UO:0000185).

broader term: angle unit

narrower term: degree east
narrower term: degree north
narrower term: degree south
narrower term: degree west

degree Celsius

definition: a temperature unit which is equal to one kelvin degree. However, they have their zeros at different points. The centigrade scale has its zero at 273.15 K (UO:0000027).

broader term: temperature unit
synonym: Celsius
synonym: degree C

degree Celsius per second

definition: a temperature per time unit that is the change of one degree Celsius per one second.
broader term: temperature per time unit

degree east

definition: a degree unit used to designate a geographic longitude coordinate eastward of the prime meridian.
broader term: degree
synonym: deg E

degree Fahrenheit

definition: a temperature unit which is equal to 5/9ths of a kelvin. Negative 40 degrees Fahrenheit is equal to negative 40 degrees Celsius (UO: 0000195)
broader term: temperature unit

degree north

definition: a degree unit used to designate a geographic latitude coordinate northward of the equator.
broader term: degree
synonym: deg N

degree south

definition: a degree unit used to designate a geographic latitude coordinate southward of the equator.
broader term: degree
synonym: deg S

degree west

definition: a degree unit used to designate a geographic longitude coordinate westward of the prime meridian.
broader term: degree
synonym: deg W

dimensionless

definition: a unit that is a standard measure of physical quantity consisting of only a numerical number without any units (UO:0000186).

broader term: unit
narrower term: count
narrower term: dimensionless (CGS system)
narrower term: dimensionless (SI system)
narrower term: fraction
narrower term: relative unit

dimensionless (CGS system)

definition: a dimensionless measure of volume magnetic susceptibility that results from values of magnetization and magnetic field strength in centimeter-gram-second units, i.e., electromagnetic units. The dimensionless cgs value of volume magnetic susceptibility can be multiplied by 4π to generate the dimensionless SI value.

broader term: dimensionless

dimensionless (SI system)

definition: a dimensionless measure of volume magnetic susceptibility that results from values of magnetization and magnetic field strength in Standard International units, i.e., ampere per meter.

broader term: dimensionless

dimensionless per second

definition: a dimensionless per time unit that is a dimensionless quantity per one second.

broader term: dimensionless per time unit

dimensionless per time unit

definition: a rate unit that is a dimensionless quantity per unit time.

broader term: rate unit

narrower term: dimensionless per second

disintegration per minute per gram

definition: a specific activity unit which is equal to the activity of a gram of radioactive material in which one nucleus decays per minute or there is one atom disintegration per minute.

broader term: specific activity unit

disintegration per minute per kilogram

definition: a specific activity unit which is equal to the activity of a kilogram of radioactive material in which one nucleus decays per minute or there is one atom disintegration per minute.

broader term: specific activity unit

duration unit

definition: a time unit that measures the duration of a period of time.

broader term: time unit

narrower term: calendar kiloyear

narrower term: calendar year

narrower term: day

narrower term: hour

narrower term: kiloyear

narrower term: million year

narrower term: minute

narrower term: month

narrower term: radiocarbon kiloyear

narrower term: radiocarbon year

narrower term: second

narrower term: year

electric current unit

definition: a unit which is a standard measure of the flow of electric charge (UO:0000004).

broader term: electromagnetic unit

narrower term: ampere

narrower term: kiloampere
narrower term: microampere
narrower term: milliampere
narrower term: nanoampere

electric potential difference unit

definition: a unit which is a standard measure of the work done per unit charge as a charge is moved between two points in an electric field (UO:0000217).

broader term: electromagnetic unit
narrower term: megavolt
narrower term: millivolt
narrower term: volt

electrical conduction unit

definition: a unit which represents a standard measurement of the movement of electrically charged particles through a transmission medium (electrical conductor) (UO:0000262).

broader term: electromagnetic unit
narrower term: microsiemens
narrower term: nanosiemens
narrower term: siemens

electrical conductivity unit

definition: a unit which represents a standard measurement of the movement of electrically charged particles per unit shape of the transmission medium (electrical conductor). The electrical conductivity is related to electrical conductance by $G = \sigma * A / l$ where G is conductance, sigma is conductivity, A is area of conductor and l is length of the conductor.

broader term: electromagnetic unit
narrower term: microsiemens per centimeter
narrower term: microsiemens per meter
narrower term: millisiemens per centimeter
narrower term: siemens per meter

electrical resistivity unit

definition: an electromagnetic unit that represents a standard measurement of how strongly a material opposes the flow of an electrical current.

broader term: electromagnetic unit
narrower term: ohm centimeter
narrower term: ohm meter

electromagnetic unit

broader term: unit
narrower term: electric current unit
narrower term: electric potential difference unit
narrower term: electrical conduction unit
narrower term: electrical conductivity unit
narrower term: electrical resistivity unit
narrower term: light unit
narrower term: magnetic field strength unit
narrower term: magnetic flux density unit
narrower term: magnetic moment unit

energy unit

definition: a unit which is a standard measure of the work done by a certain force (gravitational, electric, magnetic, force of inertia, etc) (UO: 0000111).

broader term: unit

narrower term: calorie

epsilon unit

definition: a parts unit that represents a one part per 10,000 deviation of a sample from the "chondritic unfractionated reservoir" (CHUR) standard (Wikipedia).

broader term: parts per notation unit

equivalent per mass unit

definition: a concentration unit that is the amount of solute that reacts with an arbitrary amount of another substance in a given chemical reaction (e.g., in an acid-base or a oxidation-reduction reaction) per mass amount of solution.

broader term: concentration unit

narrower term: microequivalent per kilogram

equivalent per volume unit

definition: a concentration unit that is the amount of solute that reacts with an arbitrary amount of another substance in a given chemical reaction (e.g., in an acid-base or a oxidation-reduction reaction) per volume amount of solution.

broader term: concentration unit

narrower term: microequivalent per liter

fraction

definition: a dimensionless ratio unit that relates the part (the numerator) to the whole (the denominator) (UO:0000191) and that, by definition, ranges from 0 to 1.

broader term: dimensionless

fraction of modern activity

definition: a fraction that relates the $^{14}\text{C}/^{12}\text{C}$ ratio of a sample to that of modern, which is defined as 95% of the radiocarbon concentration (in AD 1950) of NBS Oxalic Acid I (SRM 4990B, OX-I) normalized to $\delta^{13}\text{CVPDB} = -19$ per mil (WHOI). Note that this unit is not technically a fraction since it does not have to be constrained between 0 and 1.

broader term: relative unit

gigajoule per square meter

definition: an integrated irradiance unit which is equal to one billion joules, or 10^9 J, of radiant energy per one square meter surface area.

broader term: light unit

gigaton

definition: a mass unit that is one billion tons, or 10^9 tons.

broader term: mass unit

gigaton per year

definition: a mass per time unit that is one billion tons, or 10^9 tons, per one year.

broader term: mass per time unit

gram

definition: a mass unit which is equal to one thousandth of a kilogram or 10^{-3} kg (UO:0000021).

broader term: mass unit
synonym: g

gram per centimeter per year

definition: a mass per length per time unit that is one thousandth of a kilogram, or 10^{-3} kg, per one hundredth of a meter, or 10^{-2} m, per one year.

broader term: mass per length per time unit

gram per cubic centimeter

definition: a mass unit density which is equal to mass of an object in grams divided by the volume in cubic centimeters (UO:0000084).

broader term: mass density unit

synonym: g/cc

synonym: g/cm³

synonym: gram per cubic centimetre

gram per cubic meter

definition: a mass unit density which is equal to mass of an object in grams divided by the volume in cubic meters.

broader term: mass density unit

synonym: g/m³

synonym: gram per cubic metre

gram per decimeter

definition: an area density unit which is equal to the mass of an object in grams divided by one decimeter.

broader term: linear density unit

synonym: g/dm

synonym: gram per decimetre

gram per kilogram

definition: a mass fraction unit that measures the number of grams of one subcomponent of a sample relative to one kilogram of either another subcomponent or of the entire sample.

broader term: mass fraction unit

gram per liter

definition: a mass unit density which is equal to mass of an object in grams divided by the volume in liters (UO:0000175).

broader term: mass density unit

synonym: g/L

synonym: gram per litre

gram per square centimeter

definition: a pressure unit in the cgs system of grams of force applied per square centimeter, which is comparable to one millibar and has been superseded by SI units (pascals).

broader term: pressure unit

gram per square centimeter per kiloyear

definition: a mass per area per time unit that is one thousandth of a kilogram, or 10^{-3} kg, per one ten-thousandth of a square meter, or 10^{-4} m, per one thousand years.

broader term: mass per area per time unit

gram per square centimeter per year

definition: a mass per area per time unit that is one thousandth of a kilogram, or 10^{-3} kg, per one ten-thousandth of a square meter, or 10^{-4} m, per one year.
broader term: mass per area per time unit

gram per square meter

definition: a pressure unit that is grams of force applied per square meter.

broader term: pressure unit

gram per square meter per kiloyear

definition: a mass per area per time unit that is one thousandth of a kilogram, or 10^{-3} kg, per one square meter, per one thousand years.

broader term: mass per area per time unit

gram per square meter per year

definition: a mass per area per time unit that is one thousandth of a kilogram, or 10^{-3} kg, per one square meter, per one year.

broader term: mass per area per time unit

hectopascal

definition: a pressure unit which is equal to one hundred Pascals or 10^{-2} Pa.

broader term: pressure unit

synonym: hPa

synonym: mbar

synonym: millibar

Hounsfield unit

definition: a dimensionless unit that measures the radiodensity of a substance and that is calculated as $1000 \times (u_{\text{sample}} - u_{\text{water}}) / (u_{\text{water}} - u_{\text{air}})$ where u is a linear attenuation coefficient.

broader term: relative unit

synonym: HU

hour

definition: a duration unit which is equal to 3600 seconds or 60 minutes (UO: 0000032).

broader term: duration unit

hour of day

definition: an age unit of hour position in the day, starting with midnight.

broader term: age unit

inch

definition: a length unit that is equal to 2.54 centimeters.

broader term: length unit

kelvin

definition: a thermodynamic temperature unit which is equal to the fraction $1/273.16$ of the thermodynamic temperature of the triple point of water (UO:0000012).

broader term: temperature unit

synonym: K

kelvin day

definition: a unit for accumulated temperature.

broader term: temperature unit

kelvin meter per second

definition: a heat flux unit that is temperature in kelvin multiplied by a velocity in meter per second. This quantity can be converted to watt per square meter by using the specific heat capacity and density of the material.

broader term: temperature per time unit

kelvin per century

definition: a temperature per time unit that is the change of one degree kelvin per one hundred years.

broader term: temperature per time unit

kelvin per day

definition: a temperature per time unit that is the change of one kelvin per one day.

broader term: temperature per time unit

kelvin per second

definition: a temperature per time unit that is the change of one kelvin per one second.

broader term: temperature per time unit

kiloampere

definition: an electric current unit current which is equal to one thousand amperes or 10^3 A.

broader term: electric current unit

synonym: kA

kiloampere per meter

definition: a magnetic field strength unit that is one thousand amperes, or 10^3 A, per meter.

broader term: magnetic field strength unit

kilogram

definition: a mass unit which is equal to the mass of the International Prototype Kilogram kept by the BIPM at Svres, France (UO:0000009).

broader term: mass unit

synonym: kg

kilogram per cubic meter

definition: a mass unit density which is equal to mass of an object in kilograms divided by the volume in cubic meters (UO:0000083).

broader term: mass density unit

synonym: kg/m³

synonym: kilogram per cubic metre

kilogram per kilogram

definition: a mass fraction unit that measures the number of kilograms of one subcomponent of a sample relative to one kilogram of either another subcomponent or of the entire sample.

broader term: mass fraction unit

kilogram per mole

definition: a molar mass unit which is equal to one kilogram of mass of one mole of chemical element or chemical compound (UO: 0000087).

broader term: molar mass unit

kilogram per second

definition: a mass per time unit that is one thousand grams, or 10^3 g, per one second.

broader term: mass per time unit

kilogram per square kilometer

definition: a pressure unit of kilograms of force applied per square kilometer, superceded by SI units (pascals).

broader term: pressure unit

kilogram per square meter

definition: a pressure unit of kilograms of force applied per square meter.

broader term: pressure unit

kilogram per square meter per second

definition: a mass per area per time unit that is one kilogram per one square meter, per one second.

broader term: mass per area per time unit

kilogram per square meter per year

definition: a mass per area per time unit that is one kilogram per one square meter, per one year.

broader term: mass per area per time unit

kilometer

definition: a length unit which is equal to one thousand meters or 10^3 m.

broader term: length unit

synonym: kilometre

synonym: km

kiloyear

definition: a duration unit that is equal to 10^3 years.

broader term: duration unit

synonym: kilo annum

knot

definition: a length per time unit that is equivalent to one nautical mile per hour, which is approximately 0.51444 meters per second.

broader term: length per time unit

synonym: kn

synonym: kt

langley per day

definition: an irradiance unit which is equal to one thermochemical calorie per square centimeter per day, and to about 0.484583 watt per square meter.

broader term: light unit

length per time unit

definition: a rate unit that is a standard measure of a linear distance of movement or accumulation of material per unit time.

broader term: rate unit

narrower term: centimeter per kiloyear

narrower term: centimeter per second

narrower term: centimeter per year

narrower term: knot

narrower term: meter per kiloyear

narrower term: meter per second
narrower term: meter per year
narrower term: micrometer per year
narrower term: millimeter per day
narrower term: millimeter per month
narrower term: millimeter per year
narrower term: year per centimeter

length unit

definition: a unit which is a standard measure of the distance between two points (UO:0000001).
broader term: unit
narrower term: centimeter
narrower term: inch
narrower term: kilometer
narrower term: meter
narrower term: micrometer
narrower term: millimeter
narrower term: nanometer

light unit

definition: a unit which is a standard measure of the intensity of light (UO: 0000157).
broader term: electromagnetic unit
narrower term: gigajoule per square meter
narrower term: langley per day
narrower term: watt per square meter
narrower term: watt per steradian

linear density unit

definition: a density unit which is a standard measure of the mass exerting an influence on a one-dimensional object (UO:0000183).
broader term: unit
narrower term: gram per decimeter

liter

definition: a volume unit which is equal to one thousandth of a cubic meter or 10^{-3} m^3 , or to 1 decimeter (UO:0000099).
broader term: volume unit
synonym: l
synonym: L
synonym: litre

magnetic field strength unit

definition: a unit that is a standard measure of the strength of a magnetic field and that can be thought of as the strength of the field that is produced at the center of a single circular conductor with a one meter diameter carrying a steady current of 1 ampere.
broader term: electromagnetic unit
narrower term: ampere per meter
narrower term: ampere per meter per kilogram
narrower term: kiloampere per meter

magnetic flux density unit

definition: a unit that is a standard measure of the strength of a magnetic field (UO:0000227) and that can be thought of as the concentration of field lines through an area perpendicular to their direction.

broader term: electromagnetic unit

narrower term: millitesla

magnetic moment unit

definition: an electromagnetic unit that is a standard measurement of the intensity of magnetization of a material.

broader term: electromagnetic unit

narrower term: ampere square meter per kilogram

narrower term: milliampere square meter per kilogram

mass density unit

definition: a density unit which is a standard measure of the mass of a substance in a given volume (UO:0000052).

broader term: unit

narrower term: gram per cubic centimeter

narrower term: gram per cubic meter

narrower term: gram per liter

narrower term: kilogram per cubic meter

narrower term: microgram per liter

narrower term: milligram per cubic centimeter

narrower term: milligram per cubic meter

narrower term: milligram per liter

narrower term: nanogram per liter

narrower term: picogram per liter

mass fraction unit

definition: a concentration unit that denotes the mass of one subcomponent of a sample as a proportion the mass of either another subcomponent or of the entire sample.

broader term: concentration unit

narrower term: gram per kilogram

narrower term: kilogram per kilogram

narrower term: microgram per gram

narrower term: microgram per kilogram

narrower term: microgram per milligram

narrower term: milligram per gram

narrower term: milligram per kilogram

narrower term: milligram per milligram

narrower term: nanogram per gram

narrower term: picogram per gram

mass per area per time unit

definition: a rate unit that is a standard measure of the accumulation or flow of mass per unit area per time.

broader term: rate unit

narrower term: gram per square centimeter per kiloyear

narrower term: gram per square centimeter per year

narrower term: gram per square meter per kiloyear

narrower term: gram per square meter per year

narrower term: kilogram per square meter per second

narrower term: kilogram per square meter per year

narrower term: microgram per square centimeter per kiloyear
narrower term: microgram per square centimeter per year
narrower term: microgram per square meter per day
narrower term: microgram per square meter per year
narrower term: milligram per square centimeter per kiloyear
narrower term: milligram per square centimeter per year
narrower term: milligram per square meter per year
narrower term: nanogram per square centimeter per kiloyear
narrower term: nanogram per square centimeter per year
narrower term: picogram per square centimeter per year

mass per length per time unit

definition: a rate unit that is a standard measure of the accumulation or flow of mass per unit length per time.

broader term: rate unit

narrower term: gram per centimeter per year

mass per time unit

definition: a rate unit that is a standard measure of the flow or accumulation of mass per unit time.

broader term: rate unit

narrower term: gigaton per year

narrower term: kilogram per second

narrower term: microgram per day

mass unit

definition: a unit which is a standard measure of the amount of matter/energy of a physical object (UO:0000002).

broader term: unit

narrower term: gigaton

narrower term: gram

narrower term: kilogram

narrower term: megaton

narrower term: microgram

narrower term: milligram

narrower term: nanogram

narrower term: picogram

narrower term: teragram

mathematical unit

definition: a unit that is a standard measure of a mathematical quantity.

broader term: unit

narrower term: percent per nanometer

narrower term: standard deviation unit

megaliter

definition: a volume unit which is equal to one million liters or 10^6 L.

broader term: volume unit

synonym: megalitre

synonym: MI

synonym: ML

megaton

definition: a mass unit which is equal to one billion kilograms or $10^{[9]}$ kg.

broader term: mass unit

synonym: Mt

megavolt

definition: an electric potential difference unit which is equal to one million volts or $10^{[6]}$ V (UO:0000252).

broader term: electric potential difference unit

meter

definition: a length unit which is equal to the length of the path traveled by light in vacuum during a time interval of $1/299\,792\,458$ of a second (UO:0000008).

broader term: length unit

synonym: m

synonym: metre

meter per kiloyear

definition: a length per time unit that is one meter per one thousand years.

broader term: length per time unit

meter per second

definition: a length per time unit that is one meter per one second.

broader term: length per time unit

meter per year

definition: a length per time unit that is one meter per one year.

broader term: length per time unit

microampere

definition: an electric current unit current which is equal to one millionth of an ampere or $10^{[-6]}$ A (UO:0000038).

broader term: electric current unit

synonym: uA

microequivalent per kilogram

definition: an equivalent per mass unit that is one millionth of an equivalent, or $10^{[-6]}$ equivalents, per kilogram.

broader term: equivalent per mass unit

microequivalent per liter

definition: an equivalent per mass unit that is one millionth of an equivalent, or $10^{[-6]}$ equivalents, per liter.

broader term: equivalent per volume unit

microgram

definition: a mass unit which is equal to one millionth of a gram or $10^{[-6]}$ g (UO:0000023).

broader term: mass unit

synonym: ug

microgram per day

definition: a mass per time unit that is one millionth of a gram, or $10^{[-6]}$ g, per one day.

broader term: mass per time unit

microgram per gram

definition: a mass fraction unit that measures the number of micrograms of one subcomponent of a sample relative to one gram of either another subcomponent or of the entire sample.

broader term: mass fraction unit

synonym: mcg/g

synonym: ug/g

microgram per kilogram

definition: a mass fraction unit that measures the number of micrograms of one subcomponent of a sample relative to one kilogram of either another subcomponent or of the entire sample.

broader term: mass fraction unit

microgram per liter

definition: a mass unit density which is equal to mass of an object in micrograms divided by the volume in liters (UO:0000301).

broader term: mass density unit

synonym: microgram per litre

synonym: ug/L

microgram per milligram

definition: a mass fraction unit that measures the number of micrograms of one subcomponent of a sample relative to one milligram of either another subcomponent or of the entire sample.

broader term: mass fraction unit

microgram per square centimeter per kiloyear

definition: a mass per area per time unit that is one millionth of a gram, or 10^{-6} g, per one ten-thousandth of a square meter, or 10^{-4} m, per one thousand years.

broader term: mass per area per time unit

microgram per square centimeter per year

definition: a mass per area per time unit that is one millionth of a gram, or 10^{-6} g, per one ten-thousandth of a square meter, or 10^{-4} m, per one year.

broader term: mass per area per time unit

microgram per square meter per day

definition: a mass per area per time unit that is one millionth of a gram, or 10^{-6} g, per one square meter, per one day.

broader term: mass per area per time unit

microgram per square meter per year

definition: a mass per area per time unit that is one millionth of a gram, or 10^{-6} g, per one square meter, per one year.

broader term: mass per area per time unit

micrometer

definition: a length unit which is equal to one millionth of a meter or 10^{-6} m (UO:0000017).

broader term: length unit

synonym: micrometre

synonym: micron

synonym: um

micrometer per year

definition: a length per time unit that is one millionth of a meter, or 10^{-6} m, per one year.

broader term: length per time unit

micromole

definition: a substance unit equal to a millionth of a mol or 10^{-6} mol (UO:0000039).

broader term: substance unit

synonym: umol

micromole per cubic meter

definition: a unit of molarity which expresses a concentration of a solution of one millionth of a mole, or 10^{-6} mole, per one cubic meter of solvent.

broader term: molarity unit

micromole per gram

definition: a unit of molality which expresses a concentration of a solution of one millionth of a mole, or 10^{-6} mole, per one thousandth of a kilogram, or 10^{-3} kg, of solvent.

broader term: molality unit

micromole per kilogram

definition: a unit of molality which expresses a concentration of a solution of one millionth of a mole, or 10^{-6} mole, per kilogram of solvent.

broader term: molality unit

micromole per liter

definition: a unit of molarity which expresses a concentration of a solution of one millionth of a mole, or 10^{-6} mole, per one liter of solvent.

broader term: molarity unit

micromole per mole

definition: a mass fraction unit that measures the number of micromoles of one subcomponent of a sample relative to one mole of either another subcomponent or of the entire sample.

broader term: mole fraction unit

micromole per square centimeter per kiloyear

definition: a mole per area per time unit that is one millionth of a mole, or 10^{-6} mole, per one ten-thousandth of a square meter, or 10^{-4} m, per one thousand years.

broader term: mole per area per time unit

micromole per square meter per second

definition: a mole per area per time unit that is one millionth of a mole, or 10^{-6} mole, per one square meter per one second.

broader term: mole per area per time unit

microsiemens

definition: an electrical conduction unit which is equal to one millionth of a siemens, or 10^{-6} siemens.

broader term: electrical conduction unit

microsiemens per centimeter

definition: an electrical conductivity unit that is one millionth of a siemen, or 10^{-6} S, per one hundredth of a meter, or 10^{-2} m.

broader term: electrical conductivity unit

synonym: micromho per centimeter
synonym: $\mu\text{S}/\text{cm}$

microsiemens per meter

definition: an electrical conductivity unit that is one millionth of a siemen, or 10^{-6} S, per meter.
broader term: electrical conductivity unit
synonym: micromho per meter
synonym: $\mu\text{S}/\text{m}$

milliampere

definition: an electric current unit current which is equal to one thousandth of an ampere or 10^{-3} A. (UO:0000037).
broader term: electric current unit
synonym: mA

milliampere square meter per kilogram

definition: a magnetic moment unit that is one thousandth of an ampere square meter, or 10^{-3} Am², per unit mass in kilograms.
broader term: magnetic moment unit

milligram

definition: a mass unit which is equal to one thousandth of a gram or 10^{-3} g (UO:0000022).
broader term: mass unit
synonym: mg

milligram per cubic centimeter

definition: a mass unit density which is equal to mass of an object in milligrams divided by the volume in cubic centimeters.
broader term: mass density unit
synonym: mg/cc
synonym: mg/cm³
synonym: milligram per cubic centimetre

milligram per cubic meter

definition: a mass unit density which is equal to mass of an object in milligrams divided by the volume in cubic meters.
broader term: mass density unit
synonym: mg/m³
synonym: milligram per cubic metre

milligram per gram

definition: a mass fraction unit that measures the number of milligrams of one subcomponent of a sample relative to one gram of either another subcomponent or of the entire sample.
broader term: mass fraction unit

milligram per kilogram

definition: a mass fraction unit that measures the number of milligrams of one subcomponent of a sample relative to one kilogram of either another subcomponent or of the entire sample.
broader term: mass fraction unit

milligram per liter

definition: a mass unit density which is equal to mass of an object in milligrams divided by the volume in liters (UO:0000273).

broader term: mass density unit

synonym: mg/L

synonym: milligram per litre

milligram per milligram

definition: a mass fraction unit that measures the number of milligrams of one subcomponent of a sample relative to one milligram of either another subcomponent or of the entire sample.

broader term: mass fraction unit

milligram per square centimeter per kiloyear

definition: a mass per area per time unit that is one thousandth of a gram, or 10^{-3} g, per one ten-thousandth of a square meter, or 10^{-4} m, per one thousand years.

broader term: mass per area per time unit

milligram per square centimeter per year

definition: a mass per area per time unit that is one thousandth of a gram, or 10^{-3} g, per one ten-thousandth of a square meter, or 10^{-4} m, per one year.

broader term: mass per area per time unit

milligram per square meter per year

definition: a mass per area per time unit that is one thousandth of a gram, or 10^{-3} g, per one square meter, per one year.

broader term: mass per area per time unit

milliliter

definition: a volume unit which is equal to one thousandth of a liter or 10^{-3} L, or to 1 cubic centimeter (UO:0000098).

broader term: volume unit

synonym: millilitre

synonym: ml

milliliter per gram

definition: a specific volume unit which is equal to one liter volume occupied by one kilogram of a particular substance.

broader term: specific volume unit

synonym: millilitre per gram

synonym: ml/g

milliliter per kilogram

definition: a specific volume unit which is equal to a thousandth of a liter per kilogram or 10^{-3} l/kg (UO:0000198).

broader term: specific volume unit

synonym: millilitre per kilogram

synonym: ml/kg

millimeter

definition: a length unit which is equal to one thousandth of a meter or 10^{-3} m (UO:0000016).

broader term: length unit

synonym: millimetre

synonym: mm

millimeter per day

definition: a length per time unit that is one thousandth of a meter, or 10^{-3} m, per one day.

broader term: length per time unit

millimeter per month

definition: a length per time unit that is one thousandth of a meter, or 10^{-3} m, per one month.

broader term: length per time unit

millimeter per year

definition: a length per time unit that is one thousandth of a meter, or 10^{-3} m, per one year.

broader term: length per time unit

millimole

definition: a substance unit equal to a thousandth of a mol or 10^{-3} mol (UO:0000040).

broader term: substance unit

synonym: mmol

millimole per cubic meter

definition: a unit of molarity which expresses a concentration of a solution of one thousandth of a mole, or 10^{-3} mole, per one cubic meter of solvent.

broader term: molarity unit

millimole per gram

definition: a unit of molality which expresses a concentration of a solution of one thousandth of a mole, or 10^{-3} mole, per one thousandth of a kilogram, or 10^{-3} kg, of solvent.

broader term: molality unit

millimole per kilogram

definition: a unit of molality which expresses a concentration of a solution of one thousandth of a mole, or 10^{-3} mole, per kilogram of solvent.

broader term: molality unit

synonym: mmol/kg

millimole per mole

definition: a mass fraction unit that measures the number of millimoles of one subcomponent of a sample relative to one mole of either another subcomponent or of the entire sample.

broader term: mole fraction unit

millimole per square centimeter per kiloyear

definition: a mole per area per time unit that is one thousandth of a mole, or 10^{-3} mole, per one ten-thousandth of a square meter, or 10^{-4} m, per one thousand years.

broader term: mole per area per time unit

millimole per square meter per second

definition: a mole per area per time unit that is one millimole, per one square meter, per one second.

broader term: mole per area per time unit

million year

definition: a duration unit that is equal to 10^6 years.

broader term: duration unit

million years ago

definition: an age unit of 10^6 years before present.

broader term: age unit

synonym: mega annum

millisiemens per centimeter

definition: an electrical conductivity unit that is one thousandth of a siemen, or 10^{-3} S, per one hundredth of a meter, or 10^{-2} m.

broader term: electrical conductivity unit

synonym: millimho per centimeter

synonym: mS/cm

millitesla

definition: a magnetic flux density unit which is equal to one thousandth of a weber per square meter.

broader term: magnetic flux density unit

synonym: mT

millivolt

definition: an electric potential difference unit which is equal to one thousandth of a volt or 10^{-3} V (UO:0000247).

broader term: electric potential difference unit

synonym: mV

minute

definition: a duration unit that is equal to 60 seconds (UO:0000031).

broader term: duration unit

molality unit

definition: a concentration unit which is a standard measure of the number of moles of a given substance per kilogram of solvent (UO:0000067).

broader term: concentration unit

narrower term: micromole per gram

narrower term: micromole per kilogram

narrower term: millimole per gram

narrower term: millimole per kilogram

narrower term: molecule per gram

narrower term: nanomole per gram

narrower term: nanomole per kilogram

molar mass unit

definition: a unit which is a standard measure of the mass of a homogeneous substance containing 6.02×10^{23} atoms or molecules (UO: 0000055).

broader term: unit

narrower term: kilogram per mole

molarity unit

definition: a concentration unit which is a standard measure of the number of moles of a given substance per liter of solution (UO:0000061).

broader term: concentration unit

narrower term: micromole per cubic meter

narrower term: micromole per liter

narrower term: millimole per cubic meter

narrower term: mole per cubic meter
narrower term: nanomole per cubic meter

mole

definition: a substance unit which is equal to the amount of substance of a molecular system which contains as many elementary entities as there are atoms in 0.012 kilogram of carbon 12 (UO:0000013).
broader term: substance unit
synonym: mol

mole fraction unit

definition: a concentration unit which denotes the number of moles of solute as a proportion of the total number of moles in a solution (UO:0000076).
broader term: concentration unit
narrower term: micromole per mole
narrower term: millimole per mole
narrower term: mole per mole
narrower term: nanomole per mole

mole per area per time unit

definition: a rate unit that is a standard measure of the accumulation or flow of a mole of material per unit area per time.
broader term: rate unit
narrower term: micromole per square centimeter per kiloyear
narrower term: micromole per square meter per second
narrower term: millimole per square centimeter per kiloyear
narrower term: millimole per square meter per second
narrower term: mole per square meter per second
narrower term: nanomole per square centimeter per kiloyear

mole per cubic meter

definition: a unit of molarity which expresses a concentration of a solution of one mole per one cubic meter of solvent.
broader term: molarity unit

mole per cubic meter per second

definition: a mole per volume per time unit that is one mole, per one cubic meter, per one second.
broader term: mole per volume per time unit

mole per mole

definition: a mass fraction unit that measures the number of moles of one subcomponent of a sample relative to one mole of either another subcomponent or of the entire sample.
broader term: mole fraction unit

mole per square meter per second

definition: a mole per area per time unit that is one mole, per one square meter, per one second.
broader term: mole per area per time unit

mole per volume per time unit

definition: a rate unit that is a standard measure of the accumulation or flow of a mole of material per unit volume per time.
broader term: rate unit
narrower term: mole per cubic meter per second

mole percent

definition: a dimensionless concentration unit that denotes the moles of a substance in a mixture as a percentage of the moles of the entire mixture.

broader term: percent

molecule per gram

definition: a unit of molality which expresses a concentration of a solution of one molecule per one thousandth of a kilogram, or 10^{-3} kg, of solvent.

broader term: molality unit

month

definition: a duration unit which is approximately equal to the length of time of one of cycle of the moon's phases which in science is taken to be equal to 30 days (UO: 0000035).

broader term: duration unit

month of year

definition: an age unit of month position in the year, starting with January.

broader term: age unit

nanoampere

definition: an electric current unit current which is equal to one billionth of an ampere or 10^{-9} A

broader term: electric current unit

nanogram

definition: a mass unit which is equal to one thousandth of one millionth of a gram or 10^{-9} g (UO:0000024).

broader term: mass unit

synonym: ng

nanogram per gram

definition: a mass fraction unit that measures the number of nanograms of one subcomponent of a sample relative to one gram of either another subcomponent or of the entire sample.

broader term: mass fraction unit

nanogram per liter

definition: a mass unit density which is equal to mass of an object in nanograms divided by the volume in liters.

broader term: mass density unit

synonym: nanogram per litre

synonym: ng/L

nanogram per square centimeter per kiloyear

definition: a mass per area per time unit that is one billionth of a gram, or 10^{-9} g, per one ten-thousandth of a square meter, or 10^{-4} m, per one thousand years.

broader term: mass per area per time unit

nanogram per square centimeter per year

definition: a mass per area per time unit that is one billionth of a gram, or 10^{-9} g, per one ten-thousandth of a square meter, or 10^{-4} m, per one year.

broader term: mass per area per time unit

nanometer

definition: a length unit which is equal to one thousandth of one millionth of a meter or 10^{-9} m (UO:0000018).

broader term: length unit

synonym: nanometre

synonym: nm

nanomole

definition: a substance unit equal to one thousandth of one millionth of a mole or 10^{-9} mol (UO:0000041).

broader term: substance unit

synonym: nmol

nanomole per cubic meter

definition: a unit of molarity which expresses a concentration of a solution of one billionth of a mole, or 10^{-9} mole, per one cubic meter of solvent.

broader term: molarity unit

nanomole per gram

definition: a unit of molality which expresses a concentration of a solution of one billionth of a mole, or 10^{-9} mole, per one thousandth of a kilogram, or 10^{-3} kg, of solvent.

broader term: molality unit

nanomole per kilogram

definition: a unit of molality which expresses a concentration of a solution of one billionth of a mole, or 10^{-9} mole, per kilogram of solvent.

broader term: molality unit

nanomole per mole

definition: a mass fraction unit that measures the number of nanomoles of one subcomponent of a sample relative to one mole of either another subcomponent or of the entire sample.

broader term: mole fraction unit

nanomole per square centimeter per kiloyear

definition: a mole per area per time unit that is one billionth of a mole, or 10^{-9} mole, per one ten-thousandth of a square meter, or 10^{-4} m, per one thousand years.

broader term: mole per area per time unit

nanosiemens

definition: an electrical conduction unit which is equal to one billionth of a siemens, or 10^{-9} siemens.

broader term: electrical conduction unit

synonym: nmho

synonym: nS

ohm centimeter

definition: an electrical resistivity unit that is the resistivity of a material multiplied by the distance across which an electrical current is applied measured in centimeters.

broader term: electrical resistivity unit

ohm meter

definition: an electrical resistivity unit that is the resistivity of a material multiplied by the distance across which an electrical current is applied measured in meters.

broader term: electrical resistivity unit

parts per billion

definition: a dimensionless concentration notation which denotes the amount of a given substance in a total amount of 1,000,000,000 regardless of the units of measure as long as they are the same or 1 part in 10^9 (UO:0000170).

broader term: parts per notation unit

synonym: ppb

parts per million

definition: a dimensionless concentration notation which denotes the amount of a given substance in a total amount of 1,000,000 regardless of the units of measure used as long as they are the same or 1 part in 10^6 (UO:0000169).

broader term: parts per notation unit

synonym: ppm

narrower term: per meg AIR

narrower term: per meg VSMOW/SLAP

parts per notation unit

definition: a dimensionless concentration notation which describes the amount of one substance in another. It is the ratio of the amount of the substance of interest to the amount of that substance plus the amount of the substance (UO: 0000166).

broader term: concentration unit

narrower term: epsilon unit

narrower term: parts per billion

narrower term: parts per million

narrower term: parts per quadrillion

narrower term: parts per thousand

narrower term: parts per trillion

parts per quadrillion

definition: a dimensionless concentration notation which denotes the amount of a given substance in a total amount of 1,000,000,000,000 regardless of the units of measure used as long as they are the same or 1 part in 10^{15} (UO:0000172).

broader term: parts per notation unit

synonym: ppq

parts per thousand

definition: a dimensionless concentration notation which denotes the amount of a given substance in a total amount of 1000 regardless of the units of measure as long as they are the same (UO:0000168).

broader term: parts per notation unit

synonym: ppt

narrower term: per mil

parts per trillion

definition: a dimensionless concentration notation which denotes the amount of a given substance in a total amount of 1,000,000,000 regardless of the units of measure used as long as they are the same or 1 part in 10^{12} (UO:0000171).

broader term: parts per notation unit

synonym: ppt

pascal

definition: a pressure unit which is equal to the pressure or stress on a surface caused by a force of 1 newton spread over a surface of 1 m²] (UO:0000110).

broader term: pressure unit

synonym: Pa

pascal per second

definition: a pressure per time unit that is one pascal per one second.

broader term: pressure per time unit

peak area integral

definition: an area unit that is calculated as the area under the curve of a measured spectrum and that generally gives relative information about the abundance of various sample sub-components.

broader term: area unit

per meg AIR

definition: per meg, or parts per million, calculated using the isotopic concentration of standard air.

broader term: parts per million

per meg VSMOW/SLAP

definition: per meg, or parts per million, calculated using the isotopic concentrations of Standard Mean Ocean Water and Standard Light Antarctic Precipitation.

broader term: parts per million

per mil

definition: a parts per thousand ratio, often used directly to refer to isotopic ratios and calculated by calculating the ratio of isotopic concentrations in a sample and in a standard, subtracting one and multiplying by one thousand.

broader term: parts per thousand

synonym: per mill

synonym: per mille

synonym: permil

narrower term: per mil AIR

narrower term: per mil NBS oxalic acid

narrower term: per mil PDB

narrower term: per mil seawater

narrower term: per mil SMOW

narrower term: per mil SRM 951

narrower term: per mil VPDB

narrower term: per mil VSMOW

per mil AIR

definition: per mil calculated using the isotopic concentration of standard air.

broader term: per mil

synonym: per mill AIR

synonym: per mille AIR

synonym: permil AIR

per mil NBS oxalic acid

definition: per mil calculated using the isotopic concentration of standard NBS oxalic acid.

broader term: per mil

per mil PDB

definition: per mil calculated using the isotopic concentration of standard PeeDee belemnite.

broader term: per mil

synonym: per mill PDB

synonym: per mille PDB

synonym: permil PDB

per mil seawater

definition: per mil calculated using the isotopic concentration of standard seawater.

broader term: per mil

per mil SMOW

definition: per mil calculated using the isotopic concentration of Standard Mean Ocean Water.

broader term: per mil

synonym: per mill SMOW

synonym: per mille SMOW

synonym: permil SMOW

per mil SRM 951

definition: per mil calculated using the isotopic concentration of standard SRM 951.

broader term: per mil

per mil VPDB

definition: per mil calculated using the isotopic concentration of standard Vienna PeeDee belemnite.

broader term: per mil

synonym: per mill VPDB

synonym: per mille VPDB

synonym: permil VPDB

per mil VSMOW

definition: per mil calculated using the isotopic concentration of standard Vienna Standard Mean Ocean Water.

broader term: per mil

synonym: per mill VSMOW

synonym: per mille VSMOW

synonym: permil VSMOW

percent

definition: a dimensionless ratio unit that denotes numbers as fractions of 100 (UO:0000187).

broader term: concentration unit

synonym: %

synonym: per cent

narrower term: mole percent

narrower term: volume percent

narrower term: weight percent

percent per nanometer

definition: a mathematical unit that is the first derivative of a spectrum, yielding the change in percent per change in nanometer.

broader term: mathematical unit

petawatt

definition: a power unit which is equal to one quadrillion watts, or 10^{15} W.

broader term: power unit

picoCurie per kilogram

definition: a specific activity unit which is equal to 3.7×10^{-2} atom disintegrations per second in a mass of one kilogram.

broader term: specific activity unit

picogram

definition: a mass unit which is equal to 10^{-12} g (UO:0000025).

broader term: mass unit

synonym: pg

picogram per gram

definition: a mass fraction unit that measures the number of picograms of one subcomponent of a sample relative to one gram of either another subcomponent or of the entire sample.

broader term: mass fraction unit

picogram per liter

definition: a mass unit density which is equal to mass of an object in picograms divided by the volume in liters.

broader term: mass density unit

synonym: pg/L

synonym: picogram per litre

picogram per square centimeter per year

definition: a mass per area per time unit that is one trillionth of a gram, or 10^{-12} g, per one ten-thousandth of a square meter, or 10^{-4} m, per one year.

broader term: mass per area per time unit

power unit

definition: a unit which is a standard measure power or the rate of doing work (UO: 0000113).

broader term: unit

narrower term: petawatt

narrower term: watt

practical salinity unit

definition: a dimensionless unit for the salinity of water that is defined in terms of the ratio of the electrical conductivity of a water sample at 15°C and the pressure of one standard atmosphere, to that of a solution of 32.4356 grams of potassium chloride (KCl) in 1 kilogram of water at the same temperature and pressure. By definition, a ratio that is exactly equal to one corresponds to a practical salinity of 35.

broader term: relative unit

practical salinity unit per second

definition: a salinity per time unit that is one practical salinity unit per one second.

broader term: salinity per time unit

pressure per time unit

definition: a rate unit that is a standard measure of pressure per unit time.

broader term: rate unit

narrower term: pascal per second

pressure unit

definition: a unit which is a standard measure of the force applied to a given area, with SI units being pascals (UO:0000109).

broader term: unit

narrower term: gram per square centimeter

narrower term: gram per square meter

narrower term: hectopascal

narrower term: kilogram per square kilometer

narrower term: kilogram per square meter

narrower term: pascal

radiocarbon kiloyear

definition: an duration unit of 10^3 years, derived from radiocarbon dating without calibration to actual years.

broader term: duration unit

radiocarbon kiloyear before present

definition: an age unit of 10^3 years, derived from radiocarbon dating without calibration to actual years, before present with present defined as 1950 Common Era. Times after 1950 CE are expressed as negative values.

broader term: age unit

radiocarbon year

definition: an duration unit of years, derived from radiocarbon dating without calibration to actual years.

broader term: duration unit

radiocarbon year before present

definition: an age unit of years, derived from radiocarbon dating without calibration to actual years, before present with present defined as 1950 Common Era. Times after 1950 CE are expressed as negative values.

broader term: age unit

rate unit

definition: a unit which represents a standard measurement occurrence of a process per unit time (UO:0000280).

broader term: unit

narrower term: area per area per time unit

narrower term: count per area per time unit

narrower term: count per mass per time unit

narrower term: count per time unit

narrower term: dimensionless per time unit

narrower term: length per time unit

narrower term: mass per area per time unit

narrower term: mass per length per time unit

narrower term: mass per time unit

narrower term: mole per area per time unit

narrower term: mole per volume per time unit

narrower term: pressure per time unit

narrower term: salinity per time unit

narrower term: temperature per time unit

narrower term: volume per area per time unit

narrower term: volume per time per length unit

narrower term: volume per time unit

relative unit

definition: a dimensionless unit that is a ratio of a measurement to some arbitrarily or non-arbitrarily chosen reference value.

broader term: dimensionless

narrower term: fraction of modern activity

narrower term: Hounsfield unit

narrower term: practical salinity unit

narrower term: tritium unit

salinity per time unit

definition: a rate unit that is a standard measure of salinity per unit time.

broader term: rate unit

narrower term: practical salinity unit per second

second

definition: a duration unit that is equal to the duration of 9 192 631 770 periods of the radiation corresponding to the transition between the two hyperfine levels of the ground state of the caesium 133 atom (UO:0000010).

broader term: duration unit

siemens

definition: an electrical conduction unit which is equal to A/V (UO:0000264).

broader term: electrical conduction unit

synonym: mho

synonym: S

siemens per meter

definition: an electrical conductivity unit that is the electrical current strength between two electrodes with an applied constant voltage placed in a solution a specified distance apart.

broader term: electrical conductivity unit

specific activity unit

definition: a unit which is a standard measure of the radioactivity of a given mass of substance.

broader term: unit

narrower term: disintegration per minute per gram

narrower term: disintegration per minute per kilogram

narrower term: picoCurie per kilogram

specific energy unit

definition: a unit that is a standard measure of energy per unit mass.

broader term: unit

narrower term: square meter per square second

specific volume unit

definition: a unit which is a standard measure of the volume of a given mass of substance (the reciprocal of density) (UO:0000059).

broader term: unit

narrower term: cubic centimeter per gram

narrower term: cubic centimeter per kilogram

narrower term: cubic meter per kilogram

narrower term: milliliter per gram

narrower term: milliliter per kilogram

square centimeter per milliliter

definition: a volume area unit that is one ten-thousandth of a square meter, or 10^{-4} m², per one thousandth of a liter, or 10^{-3} L.

broader term: volume area unit

square kilometer

definition: an area unit which is equal to one million square meters or 10^6 m².

broader term: area unit

synonym: km²

synonym: square kilometre

square meter

definition: an area unit which is equal to an area enclosed by a square with sides each 1 meter long (UO:0000080).

broader term: area unit

synonym: m²

synonym: square metre

square meter per square second

definition: a specific energy unit that is typically a measure of kinetic energy per unit mass.

broader term: specific energy unit

square micrometer

definition: an area unit which is equal to one trillionth of a square meter or 10^{-12} m².

broader term: area unit

synonym: square micrometre

synonym: μm^2

square micrometer per milliliter

definition: a volume area unit that is one trillionth of a square meter, or 10^{-12} m², per one thousandth of a liter, or 10^{-3} L.

broader term: volume area unit

square micrometer per square centimeter per year

definition: an area per area per time unit that is one trillionth of a square meter, or 10^{-12} m², per one ten-thousandth of a square meter, or 10^{-4} m², per year.

broader term: area per area per time unit

square millimeter

definition: an area unit which is equal to one millionth of a square meter or 10^{-6} m² (UO:0000082).

broader term: area unit

synonym: mm²

synonym: square millimetre

square millimeter per milliliter

definition: a volume area unit that is one millionth of a square meter, or 10^{-6} m², per one thousandth of a liter, or 10^{-3} L.

broader term: volume area unit

square millimeter per square centimeter per year

definition: an area per area per time unit that is one millionth of a square meter, or 10^{-6} m², per one ten-thousandth of a square meter, or 10^{-4} m², per year.
broader term: area per area per time unit

standard deviation unit

definition: a mathematical unit that describes how many standard deviations away from the mean a value is.
broader term: mathematical unit
synonym: sd units
synonym: z score
synonym: z-score

substance unit

definition: a unit which is a standardised quantity of an element or compound with uniform composition, with the SI unit being the mole (UO:0000006).
broader term: unit
narrower term: micromole
narrower term: millimole
narrower term: mole
narrower term: nanomole
narrower term: teramole

sverdrup

definition: a volume per time unit that is one million cubic meters, or 10^6 cubic meters, per second.
broader term: cubic meter per second
synonym: Sv

temperature per time unit

definition: a rate unit that is a standard measure of the change in temperature of a substance per unit time.
broader term: rate unit
narrower term: degree Celsius per second
narrower term: kelvin meter per second
narrower term: kelvin per century
narrower term: kelvin per day
narrower term: kelvin per second

temperature unit

definition: a unit which is a standard measure of the average kinetic energy of the particles in a sample of matter (UO:0000005).
broader term: unit
narrower term: degree Celsius
narrower term: degree Fahrenheit
narrower term: kelvin
narrower term: kelvin day

teragram

definition: a mass unit which is equal to one trillion grams or 10^{12} g.
broader term: mass unit
synonym: Tg

teramole

definition: a substance unit equal to one trillion moles or 10^{12} mol.

broader term: substance unit

time unit

definition: a unit which is a standard measure of the dimension in which events occur in sequence (UO:0000003).

broader term: unit

narrower term: age unit

narrower term: duration unit

tritium unit

definition: the ratio of 1 tritium atom to 1018 hydrogen atoms.

broader term: relative unit

unspecified unit

definition: units unknown. This term should be used only for legacy datasets that have incomplete documentation.

broader term: unit

volt

definition: an electric potential difference unit which is equal to the work per unit charge. One volt is the potential difference required to move one coulomb of charge between two points in a circuit while using one joule of energy (UO:0000218).

broader term: electric potential difference unit

synonym: V

volume area unit

definition: a unit that is a standard measurement of area per unit volume.

broader term: concentration unit

narrower term: square centimeter per milliliter

narrower term: square micrometer per milliliter

narrower term: square millimeter per milliliter

volume fraction unit

definition: a concentration unit that denotes the volume of one subcomponent of a sample as a proportion of the volume of either another subcomponent or of the entire sample.

broader term: concentration unit

narrower term: cubic centimeter per liter

volume per area per time unit

definition: a rate unit that is a standard measure of the accumulation or flow of volume per unit area per time.

broader term: rate unit

narrower term: cubic centimeter per square centimeter per kiloyear

volume per time per length unit

broader term: rate unit

narrower term: cubic meter per second per hundred meters

volume per time unit

definition: a rate unit that is a standard measure of the accumulation or flow of volume over a unit time.

broader term: rate unit

narrower term: cubic centimeter per second
narrower term: cubic foot per second
narrower term: cubic meter per second
narrower term: cubic meter per year

volume percent

definition: a dimensionless concentration unit that denotes the volume of the solute in mL per 100 mL of the resulting solution (UO:0000165).

broader term: percent

volume unit

definition: a unit which is a standard measure of the amount of space occupied by any substance, whether solid, liquid, or gas (UO:0000095).

broader term: unit

narrower term: acre foot

narrower term: cubic centimeter

narrower term: cubic kilometer

narrower term: cubic meter

narrower term: cubic millimeter

narrower term: liter

narrower term: megaliter

narrower term: milliliter

watt

definition: a power unit which is equal to the power used when work is done at the rate of 1 joule per second (UO: 0000114).

broader term: power unit

watt per square meter

definition: an irradiance unit which is equal to 1 watt of radiant power incident per one square meter surface area (UO: 0000155).

broader term: light unit

watt per steradian

definition: a radiant intensity unit which is equal to one kilogram meter squared per second cubed per steradian (UO:0000162).

broader term: light unit

synonym: W/sr

weight percent

definition: a dimensionless concentration unit that denotes the weight of a substance in a mixture as a percentage of the weight of the entire mixture.

broader term: percent

synonym: weight %

synonym: weight per cent

synonym: wt %

synonym: wt per cent

synonym: wt percent

year

definition: a duration unit that is equal to 12 months which in science is taken to be equal to 365.25 days (UO:0000036).

broader term: duration unit

year Common Era

definition: an age unit of years for the Julian and Gregorian calendars relative to the start of the present era. Times prior to the start of the present era are expressed as negative values.

broader term: age unit

synonym: year AD

synonym: years AD

synonym: yr AD

synonym: yrs AD

year per centimeter

definition: a reciprocal length per time unit that is one year per one hundredth of a meter, or 10^{-2} m.

broader term: length per time unit

seasonality

definition: the specific part of the annual cycle explicitly reconstructed from raw values.

narrower term: 1-month period

narrower term: 10-month period

narrower term: 11-month period

narrower term: 2-month period

narrower term: 3-month period

narrower term: 4-month period

narrower term: 5-month period

narrower term: 6-month period

narrower term: 7-month period

narrower term: 8-month period

narrower term: 9-month period

narrower term: annual

narrower term: monthly

narrower term: non-calendric period

1-month period

definition: a reconstructed seasonality that consists of one month of the calendar year.

broader term: seasonality

narrower term: Apr

narrower term: Aug

narrower term: Dec

narrower term: Feb

narrower term: Jan

narrower term: Jul

narrower term: Jun

narrower term: Mar

narrower term: May

narrower term: Nov

narrower term: Oct

narrower term: Sep

10-month period

definition: a reconstructed seasonality that consists of ten consecutive months of the calendar year.

broader term: seasonality

narrower term: Apr-Jan

narrower term: Aug-May

narrower term: Dec-Sep

narrower term: Feb-Nov

narrower term: Jan-Oct

narrower term: Jul-Apr

narrower term: Jun-Mar

narrower term: Mar-Dec

narrower term: May-Feb

narrower term: Nov-Aug

narrower term: Oct-Jul
narrower term: Sep-Jun

11-month period

definition: a reconstructed seasonality that consists of eleven consecutive months of the calendar year.
broader term: seasonality
narrower term: Apr-Feb
narrower term: Aug-Jun
narrower term: Dec-Oct
narrower term: Feb-Dec
narrower term: Jan-Nov
narrower term: Jul-May
narrower term: Jun-Apr
narrower term: Mar-Jan
narrower term: May-Mar
narrower term: Nov-Sep
narrower term: Oct-Aug
narrower term: Sep-Jul

2-month period

definition: a reconstructed seasonality that consists of two consecutive months of the calendar year.
broader term: seasonality
narrower term: Apr-May
narrower term: Aug-Sep
narrower term: Dec-Jan
narrower term: Feb-Mar
narrower term: Jan-Feb
narrower term: Jul-Aug
narrower term: Jun-Jul
narrower term: Mar-Apr
narrower term: May-Jun
narrower term: Nov-Dec
narrower term: Oct-Nov
narrower term: Sep-Oct

3-month period

definition: a reconstructed seasonality that consists of three consecutive months of the calendar year.
broader term: seasonality
narrower term: Apr-Jun
narrower term: Aug-Oct
narrower term: Dec-Feb
narrower term: Feb-Apr
narrower term: Jan-Mar
narrower term: Jul-Sep
narrower term: Jun-Aug
narrower term: Mar-May
narrower term: May-Jul
narrower term: Nov-Jan
narrower term: Oct-Dec
narrower term: Sep-Nov

4-month period

definition: a reconstructed seasonality that consists of four consecutive months of the calendar year.

broader term: seasonality

narrower term: Apr-Jul

narrower term: Aug-Nov

narrower term: Dec-Mar

narrower term: Feb-May

narrower term: Jan-Apr

narrower term: Jul-Oct

narrower term: Jun-Sep

narrower term: Mar-Jun

narrower term: May-Aug

narrower term: Nov-Feb

narrower term: Oct-Jan

narrower term: Sep-Dec

5-month period

definition: a reconstructed seasonality that consists of five consecutive months of the calendar year.

broader term: seasonality

narrower term: Apr-Aug

narrower term: Aug-Dec

narrower term: Dec-Apr

narrower term: Feb-Jun

narrower term: Jan-May

narrower term: Jul-Nov

narrower term: Jun-Oct

narrower term: Mar-Jul

narrower term: May-Sep

narrower term: Nov-Mar

narrower term: Oct-Feb

narrower term: Sep-Jan

6-month period

definition: a reconstructed seasonality that consists of six consecutive months of the calendar year.

broader term: seasonality

narrower term: Apr-Sep

narrower term: Aug-Jan

narrower term: Dec-May

narrower term: Feb-Jul

narrower term: Jan-Jun

narrower term: Jul-Dec

narrower term: Jun-Nov

narrower term: Mar-Aug

narrower term: May-Oct

narrower term: Nov-Apr

narrower term: Oct-Mar

narrower term: Sep-Feb

7-month period

definition: a reconstructed seasonality that consists of seven consecutive months of the calendar year.

broader term: seasonality

narrower term: Apr-Oct

narrower term: Aug-Feb

narrower term: Dec-Jun
narrower term: Feb-Aug
narrower term: Jan-Jul
narrower term: Jul-Jan
narrower term: Jun-Dec
narrower term: Mar-Sep
narrower term: May-Nov
narrower term: Nov-May
narrower term: Oct-Apr
narrower term: Sep-Mar

8-month period

definition: a reconstructed seasonality that consists of eight consecutive months of the calendar year.

broader term: seasonality

narrower term: Apr-Nov

narrower term: Aug-Mar

narrower term: Dec-Jul

narrower term: Feb-Sep

narrower term: Jan-Aug

narrower term: Jul-Feb

narrower term: Jun-Jan

narrower term: Mar-Oct

narrower term: May-Dec

narrower term: Nov-Jun

narrower term: Oct-May

narrower term: Sep-Apr

9-month period

definition: a reconstructed seasonality that consists of nine consecutive months of the calendar year.

broader term: seasonality

narrower term: Apr-Dec

narrower term: Aug-Apr

narrower term: Dec-Aug

narrower term: Feb-Oct

narrower term: Jan-Sep

narrower term: Jul-Mar

narrower term: Jun-Feb

narrower term: Mar-Nov

narrower term: May-Jan

narrower term: Nov-Jul

narrower term: Oct-Jun

narrower term: Sep-May

annual

definition: a reconstructed seasonality that consists of an average of twelve consecutive months of the calendar year.

broader term: seasonality

narrower term: Apr-Mar

narrower term: Aug-Jul

narrower term: Dec-Nov

narrower term: Feb-Jan

narrower term: Jan-Dec

narrower term: Jul-Jun
narrower term: Jun-May
narrower term: Mar-Feb
narrower term: May-Apr
narrower term: Nov-Oct
narrower term: Oct-Sep
narrower term: Sep-Aug

Apr

definition: a one month period that spans the month of April.
broader term: 1-month period

Apr-Aug

definition: a five month period that spans the months of April to August.
broader term: 5-month period

Apr-Dec

definition: a nine month period that spans the months of April to December.
broader term: 9-month period

Apr-Feb

definition: an eleven month period that spans the months of April to February.
broader term: 11-month period

Apr-Jan

definition: a ten month period that spans the months of April to January.
broader term: 10-month period

Apr-Jul

definition: a four month period that spans the months of April to July.
broader term: 4-month period

Apr-Jun

definition: a three month period that spans the months of April to June.
broader term: 3-month period

Apr-Mar

definition: a twelve month period that spans the months of April to March.
broader term: annual

Apr-May

definition: a two month period that spans the months of April and May.
broader term: 2-month period

Apr-Nov

definition: an eight month period that spans the months of April to November.
broader term: 8-month period

Apr-Oct

definition: a seven month period that spans the months of April to October.
broader term: 7-month period

Apr-Sep

definition: a six month period that spans the months of April to September.
broader term: 6-month period

Aug

definition: a one month period that spans the month of August.
broader term: 1-month period

Aug-Apr

definition: a nine month period that spans the months of August to April.
broader term: 9-month period

Aug-Dec

definition: a five month period that spans the months of August to December.
broader term: 5-month period

Aug-Feb

definition: a seven month period that spans the months of August to February.
broader term: 7-month period

Aug-Jan

definition: a six month period that spans the months of August to January.
broader term: 6-month period

Aug-Jul

definition: a twelve month period that spans the months of August to July.
broader term: annual

Aug-Jun

definition: an eleven month period that spans the months of August to June.
broader term: 11-month period

Aug-Mar

definition: an eight month period that spans the months of August to March.
broader term: 8-month period

Aug-May

definition: a ten month period that spans the months of August to May.
broader term: 10-month period

Aug-Nov

definition: a four month period that spans the months of August to November.
broader term: 4-month period

Aug-Oct

definition: a three month period that spans the months of August to October.
broader term: 3-month period

Aug-Sep

definition: a two month period that spans the months of August and September.
broader term: 2-month period

coldest month

definition: a non-calendric period that is defined as the coldest month of the year, with the actual calendar month being specific to a given geographic location and era.

broader term: non-calendric period

Dec

definition: a one month period that spans the month of December.

broader term: 1-month period

Dec-Apr

definition: a five month period that spans the months of December to April.

broader term: 5-month period

Dec-Aug

definition: a nine month period that spans the months of December to August.

broader term: 9-month period

Dec-Feb

definition: a three month period that spans the months of December to February.

broader term: 3-month period

Dec-Jan

definition: a two month period that spans the months of December and January.

broader term: 2-month period

Dec-Jul

definition: an eight month period that spans the months of December to July.

broader term: 8-month period

Dec-Jun

definition: a seven month period that spans the months of December to June.

broader term: 7-month period

Dec-Mar

definition: a four month period that spans the months of December to March.

broader term: 4-month period

Dec-May

definition: a six month period that spans the months of December to May.

broader term: 6-month period

Dec-Nov

definition: a twelve month period that spans the months of December to November.

broader term: annual

Dec-Oct

definition: an eleven month period that spans the months of December to October.

broader term: 11-month period

Dec-Sep

definition: a ten month period that spans the months of December to September.

broader term: 10-month period

fall
definition: a non-calendric period that encompasses the local period of transition between summer and winter without specification of certain days or months.
broader term: non-calendric period

Feb
definition: a one month period that spans the month of February.
broader term: 1-month period

Feb-Apr
definition: a three month period that spans the months of February to April.
broader term: 3-month period

Feb-Aug
definition: a seven month period that spans the months of February to August.
broader term: 7-month period

Feb-Dec
definition: an eleven month period that spans the months of February to December.
broader term: 11-month period

Feb-Jan
definition: a twelve month period that spans the months of February to January.
broader term: annual

Feb-Jul
definition: a six month period that spans the months of February to July.
broader term: 6-month period

Feb-Jun
definition: a five month period that spans the months of February to June.
broader term: 5-month period

Feb-Mar
definition: a two month period that spans the months of February and March.
broader term: 2-month period

Feb-May
definition: a four month period that spans the months of February to May.
broader term: 4-month period

Feb-Nov
definition: a ten month period that spans the months of February to November.
broader term: 10-month period

Feb-Oct
definition: a nine month period that spans the months of February to October.
broader term: 9-month period

Feb-Sep
definition: an eight month period that spans the months of February to September.

broader term: 8-month period

growing season

definition: a non-calendric period that encompasses the period during which rainfall and temperature allow plants to grow, without specification of certain days or months.

broader term: non-calendric period

Jan

definition: a one month period that spans the month of January.

broader term: 1-month period

Jan-Apr

definition: a four month period that spans the months of January to April.

broader term: 4-month period

Jan-Aug

definition: an eight month period that spans the months of January to August.

broader term: 8-month period

Jan-Dec

definition: a twelve month period that spans the months of January to December.

broader term: annual

Jan-Feb

definition: a two month period that spans the months of January and February.

broader term: 2-month period

Jan-Jul

definition: a seven month period that spans the months of January to July.

broader term: 7-month period

Jan-Jun

definition: a six month period that spans the months of January to June.

broader term: 6-month period

Jan-Mar

definition: a three month period that spans the months of January to March.

broader term: 3-month period

Jan-May

definition: a five month period that spans the months of January to May.

broader term: 5-month period

Jan-Nov

definition: an eleven month period that spans the months of January to November.

broader term: 11-month period

Jan-Oct

definition: a ten month period that spans the months of January to October.

broader term: 10-month period

Jan-Sep

definition: a nine month period that spans the months of January to September.
broader term: 9-month period

Jul

definition: a one month period that spans the month of July.
broader term: 1-month period

Jul-Apr

definition: a ten month period that spans the months of July to April.
broader term: 10-month period

Jul-Aug

definition: a two month period that spans the months of July and August.
broader term: 2-month period

Jul-Dec

definition: a six month period that spans the months of July to December.
broader term: 6-month period

Jul-Feb

definition: an eight month period that spans the months of July to February.
broader term: 8-month period

Jul-Jan

definition: a seven month period that spans the months of July to January.
broader term: 7-month period

Jul-Jun

definition: a twelve month period that spans the months of July to June.
broader term: annual

Jul-Mar

definition: a nine month period that spans the months of July to March.
broader term: 9-month period

Jul-May

definition: an eleven month period that spans the months of July to May.
broader term: 11-month period

Jul-Nov

definition: a five month period that spans the months of July to November.
broader term: 5-month period

Jul-Oct

definition: a four month period that spans the months of July to October.
broader term: 4-month period

Jul-Sep

definition: a three month period that spans the months of July to September.
broader term: 3-month period

Jun

definition: a one month period that spans the month of June.
broader term: 1-month period

Jun-Apr

definition: an eleven month period that spans the months of June to April.
broader term: 11-month period

Jun-Aug

definition: a three month period that spans the months of June to August.
broader term: 3-month period

Jun-Dec

definition: a seven month period that spans the months of June to December.
broader term: 7-month period

Jun-Feb

definition: a nine month period that spans the months of June to February.
broader term: 9-month period

Jun-Jan

definition: an eight month period that spans the months of June to January.
broader term: 8-month period

Jun-Jul

definition: a two month period that spans the months of June and July.
broader term: 2-month period

Jun-Mar

definition: a ten month period that spans the months of June to March.
broader term: 10-month period

Jun-May

definition: a twelve month period that spans the months of June to May.
broader term: annual

Jun-Nov

definition: a six month period that spans the months of June to November.
broader term: 6-month period

Jun-Oct

definition: a five month period that spans the months of June to October.
broader term: 5-month period

Jun-Sep

definition: a four month period that spans the months of June to September.
broader term: 4-month period

Mar

definition: a one month period that spans the month of March.
broader term: 1-month period

Mar-Apr

definition: a two month period that spans the months of March and April.
broader term: 2-month period

Mar-Aug

definition: a six month period that spans the months of March to August.
broader term: 6-month period

Mar-Dec

definition: a ten month period that spans the months of March to December.
broader term: 10-month period

Mar-Feb

definition: a twelve month period that spans the months of March to February.
broader term: annual

Mar-Jan

definition: an eleven month period that spans the months of March to January.
broader term: 11-month period

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definition: a five month period that spans the months of March to July.
broader term: 5-month period

Mar-Jun

definition: a four month period that spans the months of March to June.
broader term: 4-month period

Mar-May

definition: a three month period that spans the months of March to May.
broader term: 3-month period

Mar-Nov

definition: a nine month period that spans the months of March to November.
broader term: 9-month period

Mar-Oct

definition: an eight month period that spans the months of March to October.
broader term: 8-month period

Mar-Sep

definition: a seven month period that spans the months of March to September.
broader term: 7-month period

May

definition: a one month period that spans the month of May.
broader term: 1-month period

May-Apr

definition: a twelve month period that spans the months of May to April.
broader term: annual

May-Aug

definition: a four month period that spans the months of May to August.
broader term: 4-month period

May-Dec

definition: an eight month period that spans the months of May to December.
broader term: 8-month period

May-Feb

definition: a ten month period that spans the months of May to February.
broader term: 10-month period

May-Jan

definition: a nine month period that spans the months of May to January.
broader term: 9-month period

May-Jul

definition: a three month period that spans the months of May to July.
broader term: 3-month period

May-Jun

definition: a two month period that spans the months of May and June.
broader term: 2-month period

May-Mar

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broader term: 11-month period

May-Nov

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broader term: 7-month period

May-Oct

definition: a six month period that spans the months of May to October.
broader term: 6-month period

May-Sep

definition: a five month period that spans the months of May to September.
broader term: 5-month period

monthly

definition: a reconstructed seasonality that consists of values for each of the twelve months of the calendar year.
broader term: seasonality

non-calendric period

definition: a reconstructed seasonality that does not strictly adhere to specified months of the calendar year.
broader term: seasonality
narrower term: coldest month
narrower term: fall
narrower term: growing season
narrower term: spring

narrower term: summer
narrower term: warmest month
narrower term: winter

Nov

definition: a one month period that spans the month of November.
broader term: 1-month period

Nov-Apr

definition: a six month period that spans the months of November to April.
broader term: 6-month period

Nov-Aug

definition: a ten month period that spans the months of November to August.
broader term: 10-month period

Nov-Dec

definition: a two month period that spans the months of November and December.
broader term: 2-month period

Nov-Feb

definition: a four month period that spans the months of November to February.
broader term: 4-month period

Nov-Jan

definition: a three month period that spans the months of November to January.
broader term: 3-month period

Nov-Jul

definition: a nine month period that spans the months of November to July.
broader term: 9-month period

Nov-Jun

definition: an eight month period that spans the months of November to June.
broader term: 8-month period

Nov-Mar

definition: a five month period that spans the months of November to March.
broader term: 5-month period

Nov-May

definition: a seven month period that spans the months of November to May.
broader term: 7-month period

Nov-Oct

definition: a twelve month period that spans the months of November to October.
broader term: annual

Nov-Sep

definition: an eleven month period that spans the months of November to September.
broader term: 11-month period

Oct
definition: a one month period that spans the month of October.
broader term: 1-month period

Oct-Apr
definition: a seven month period that spans the months of October to April.
broader term: 7-month period

Oct-Aug
definition: an eleven month period that spans the months of October to August.
broader term: 11-month period

Oct-Dec
definition: a three month period that spans the months of October to December.
broader term: 3-month period

Oct-Feb
definition: a five month period that spans the months of October to February.
broader term: 5-month period

Oct-Jan
definition: a four month period that spans the months of October to January.
broader term: 4-month period

Oct-Jul
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broader term: 10-month period

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broader term: 9-month period

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broader term: 6-month period

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definition: an eight month period that spans the months of October to May.
broader term: 8-month period

Oct-Nov
definition: a two month period that spans the months of October and November.
broader term: 2-month period

Oct-Sep
definition: a twelve month period that spans the months of October to September.
broader term: annual

Sep
definition: a one month period that spans the month of September.
broader term: 1-month period

Sep-Apr

definition: an eight month period that spans the months of September to April.
broader term: 8-month period

Sep-Aug

definition: a twelve month period that spans the months of September to August.
broader term: annual

Sep-Dec

definition: a four month period that spans the months of September to December.
broader term: 4-month period

Sep-Feb

definition: a six month period that spans the months of September to February.
broader term: 6-month period

Sep-Jan

definition: a five month period that spans the months of September to January.
broader term: 5-month period

Sep-Jul

definition: an eleven month period that spans the months of September to July.
broader term: 11-month period

Sep-Jun

definition: a ten month period that spans the months of September to June.
broader term: 10-month period

Sep-Mar

definition: a seven month period that spans the months of September to March.
broader term: 7-month period

Sep-May

definition: a nine month period that spans the months of September to May.
broader term: 9-month period

Sep-Nov

definition: a three month period that spans the months of September to November.
broader term: 3-month period

Sep-Oct

definition: a two month period that spans the months of September and October.
broader term: 2-month period

spring

definition: a non-calendric period that encompasses the local period of transition between winter and summer without specification of certain days or months.
broader term: non-calendric period

summer

definition: a non-calendric period that encompasses the warmest period of the year without specification of certain days or months.

broader term: non-calendric period

warmest month

definition: a non-calendric period that is defined as the warmest month of the year, with the actual calendar month being specific to a given geographic location and era.

broader term: non-calendric period

winter

definition: a non-calendric period that encompasses the coldest period of the year without specification of certain days or months.

broader term: non-calendric period

data type

definition: The NOAA NCEI and WDS-Paleo proxy or reconstruction type.

narrower term: borehole

narrower term: climate forcing

narrower term: climate reconstructions

narrower term: corals and sclerosponges

narrower term: fire history

narrower term: historical

narrower term: ice cores

narrower term: insect

narrower term: instrumental

narrower term: lake levels

narrower term: loess

narrower term: other collections

narrower term: paleoceanography

narrower term: paleoclimatic modeling

narrower term: paleolimnology

narrower term: plant macrofossils

narrower term: pollen

narrower term: speleothems

narrower term: tree ring

borehole

definition: a data type that consists of direct measurements of subsurface temperature from boreholes drilled into materials such as rock and glacier ice.

what: age

what: age at sample end

what: age at sample start

what: collection date

what: collection elevation

what: depth

what: depth at sample end

what: depth at sample start

what: International Geo Sample Number

what: latitude

what: longitude

what: notes

what: number of samples

what: rock

what: sample identification

broader term: data type

climate forcing

what: aerosol optical depth

what: age

what: age at sample end

what: age at sample start
what: anthropogenic aerosol forcing
what: carbon dioxide
what: collection date
what: collection elevation
what: cosmic ray flux
what: cosmic ray-induced ionization
what: depth
what: depth at sample end
what: depth at sample start
what: effective aerosol radius
what: greenhouse gas forcing
what: insolation
what: International Geo Sample Number
what: latitude
what: longitude
what: methane
what: nitrous oxide
what: notes
what: number of samples
what: orbital parameter
what: proxy composite
what: sample identification
what: solar irradiance
what: solar modulation potential
what: sunspot number
what: volcanic forcing
what: volcanic sulfate
broader term: data type

climate reconstructions

definition: a data type that quantifies past climatic or climate-dependent conditions that are derived (or "reconstructed") from paleoclimate proxy measurements.

material: alkenone
material: alkenone unsaturation index
material: boron/calcium
material: cadmium/calcium
material: chrysophyte assemblage
material: delta 11B
material: delta 13C
material: delta 15N excess
material: delta 18O
material: delta 2H
material: diatom assemblage
material: dinoflagellate assemblage
material: extension rate
material: foraminifer assemblage
material: glycerol dialkyl glycerol tetraether
material: glycerol dialkyl glycerol tetraether index
material: glycerol dialkyl glycerol tetraether: growth rate
material: luminescence
material: magnesium/calcium

material: manganese/calcium
material: midge assemblage
material: multiple proxies
material: ostracod assemblage
material: radiolarian assemblage
material: ring density
material: ring width
material: strontium/calcium
material: testate amoebae assemblage
material: uranium/calcium
material: varve thickness
what: Arctic Oscillation Index
what: Atlantic Multidecadal Oscillation Index
what: C3 plants
what: C4 plants
what: California Current Index
what: Dipole Mode Index
what: El Nino Southern Oscillation Index
what: El Nino event
what: Hadley circulation index
what: Interdecadal Pacific Oscillation Index
what: International Geo Sample Number
what: Intertropical Convergence Zone index
what: La Nina event
what: Nino 1+2 sea surface temperature index
what: Nino 3 sea surface temperature index
what: Nino 3.4 sea surface temperature index
what: Nino 4 sea surface temperature index
what: North Atlantic Oscillation Index
what: Northern Oscillation Index
what: Pacific Decadal Oscillation Index
what: Pacific-North American Pattern
what: Palmer Drought Severity Index
what: Palmer Hydrologic Drought Index
what: Palmer Modified Drought Index
what: South Asian Summer Monsoon Index
what: Southern Annular Mode
what: Southern Oscillation Index
what: actual/potential evapotranspiration
what: age
what: age at sample end
what: age at sample start
what: air temperature
what: alkalinity
what: aragonite saturation state
what: biome
what: burned area
what: cadmium
what: calcium carbonate compensation depth
what: canonical correspondence analysis axis
what: carbonate ion
what: cloud cover

what: collection elevation
what: correspondence analysis axis
what: delta 13C
what: delta 18O
what: delta 2H
what: density
what: depth
what: depth at sample end
what: depth at sample start
what: detrended correspondence analysis axis
what: dust
what: electrical conductivity
what: empirical orthogonal function
what: equilibrium line altitude
what: eustatic sea level
what: evaporation
what: evapotranspiration
what: factor score
what: geopotential height
what: growing degree days
what: ice sheet elevation
what: ice temperature
what: intrinsic water use efficiency
what: jet stream position
what: lake area
what: lake surface temperature
what: lake water temperature
what: land surface temperature
what: land temperature
what: latitude
what: longitude
what: maximum air temperature
what: maximum surface temperature
what: maximum temperature
what: minimum air temperature
what: minimum surface temperature
what: minimum temperature
what: moisture index
what: non-freezing days
what: notes
what: number of samples
what: ocean area
what: p-value
what: pH
what: paleodrainage direction
what: phenological event
what: plant available moisture
what: precipitation
what: precipitation minus evaporation
what: precipitation minus evapotranspiration
what: precipitation minus potential evapotranspiration
what: primary productivity

what: principal component
what: productivity
what: proxy composite
what: radiative flux variable
what: relative humidity
what: relative sea level
what: runoff coefficient
what: salinity
what: sample identification
what: sea ice cover
what: sea level
what: sea level pressure
what: sea surface temperature
what: sea water temperature
what: snow water equivalent
what: soil
what: standardized precipitation evapotranspiration index
what: standardized precipitation index
what: storm track
what: streamflow
what: strontium/calcium
what: surface air temperature
what: surface downwelling shortwave radiation
what: surface temperature
what: t-statistic
what: temperature
what: total dissolved solids
what: tropical cyclone
what: verification root mean square error
what: water table depth
what: wetland area
what: wind speed
broader term: data type

corals and sclerosponges

definition: a data type that includes measurements made on corals, sclerosponges, or coralline algae.

material: *Acropora cervicornis*

material: *Acropora humilis*

material: *Acropora palmata*

material: *Acropora samoensis*

material: *Acropora* sp.

material: *Antipathes* sp.

material: *Astrosclera* sp.

material: *Astrosclera willeyana*

material: *Ceratoporella nicholsoni*

material: *Ceratoporella* sp.

material: *Clathromorphum compactum*

material: *Clathromorphum nereostratum*

material: *Desmophyllum dianthus*

material: *Desmophyllum* sp.

material: *Diploastrea heliopora*

material: *Diploastrea* sp.

material: Diploria labyrinthiformis
material: Diploria sp.
material: Dipsastraea sp.
material: Dipsastraea speciosa
material: Gardinersoseris planulata
material: Gardinersoseris sp.
material: Goniopora hilli
material: Goniopora sp.
material: Hydnothoa microconos
material: Hydnothoa sp.
material: Isidella sp.
material: Isopora sp.
material: Kulamanamana haumeaee
material: Kulamanamana sp.
material: Montastraea cavernosa
material: Montastraea sp.
material: Muricella sp.
material: Mussismilia braziliensis
material: Mussismilia sp.
material: Orbicella annularis
material: Orbicella faveolata
material: Orbicella franksi
material: Orbicella sp.
material: Pavona clavus
material: Pavona gigantea
material: Pavona sp.
material: Platygyra daedalea
material: Platygyra lamellina
material: Platygyra sp.
material: Pocillopora damicornis
material: Pocillopora sp.
material: Porites astreoides
material: Porites australiensis
material: Porites evermanni
material: Porites lobata
material: Porites lutea
material: Porites solidus
material: Porites sp.
material: Pseudodiploria strigosa
material: Siderastrea radians
material: Siderastrea siderea
material: Siderastrea sp.
material: Solenastrea bournoni
material: Solenastrea sp.
material: alanine
material: amino acid
material: arginine
material: asparagine
material: aspartic acid
material: cysteine
material: glutamic acid
material: glutamine

material: glycine
material: histidine
material: isoleucine
material: leucine
material: lysine
material: methionine
material: phenylalanine
material: proline
material: serine
material: threonine
material: tryptophan
material: tyrosine
material: valine
what: Delta 14C
what: Interdecadal Pacific Oscillation Index
what: International Geo Sample Number
what: North Atlantic Oscillation Index
what: Pacific Decadal Oscillation Index
what: Palmer Drought Severity Index
what: age
what: age at sample end
what: age at sample start
what: aragonite
what: barium/calcium
what: boron/calcium
what: cadmium/calcium
what: calcification rate
what: calcite
what: calcium carbonate
what: carbon/nitrogen
what: carbonate
what: collection date
what: collection elevation
what: collection water depth
what: copper
what: copper/calcium
what: delta 11B
what: delta 13C
what: delta 15N
what: delta 18O
what: density
what: depth
what: depth at sample end
what: depth at sample start
what: Dipole Mode Index
what: extension rate
what: fluorescence
what: iron
what: latitude
what: lead
what: lead/calcium
what: lithium/calcium

what: lithium/magnesium
what: longitude
what: luminescence
what: magnesium/calcium
what: manganese
what: manganese/calcium
what: mass
what: notes
what: number of samples
what: pH
what: phosphorus/calcium
what: precipitation
what: proxy composite
what: relative sea level
what: salinity
what: sample identification
what: sea level
what: sea surface temperature
what: streamflow
what: strontium/calcium
what: temperature
what: tin/calcium
what: trophic position index
what: tropical cyclone
what: uranium/calcium
what: weight
what: wind speed
what: yttrium/calcium
what: zinc
broader term: data type

fire history

definition: a data type that includes measurements made to deduce the past history of fire, whether from tree rings, sediment, or other natural archives.
material: dry sediment
material: sediment
material: wet sediment
what: International Geo Sample Number
what: age
what: age at sample end
what: age at sample start
what: carbon
what: carbon/nitrogen
what: carbonate
what: charcoal
what: collection date
what: collection elevation
what: collection water depth
what: delta 13C
what: delta 15N
what: density
what: depth

what: depth at sample end
what: depth at sample start
what: latitude
what: longitude
what: magnetic susceptibility
what: mass magnetic susceptibility
what: nitrogen
what: notes
what: number of samples
what: organic matter
what: sample identification
what: sedimentation rate
what: tree demographic and fire event code
what: tree demographic and injury and fire event code
what: volume
what: volume magnetic susceptibility
broader term: data type

historical

definition: a data type that includes measurements of past climatic conditions and climate-dependent phenomena as observed and recorded by humans not using modern meteorological instruments.

what: age
what: age at sample end
what: age at sample start
what: air temperature
what: cloud cover
what: collection date
what: collection elevation
what: collection water depth
what: El Nino event
what: geopotential height
what: grain harvest date
what: grape harvest date
what: ice break-up date
what: International Geo Sample Number
what: La Nina event
what: lake surface temperature
what: land surface temperature
what: latitude
what: longitude
what: maximum air temperature
what: maximum surface temperature
what: maximum temperature
what: minimum air temperature
what: minimum surface temperature
what: minimum temperature
what: moisture index
what: North Atlantic Oscillation Index
what: notes
what: number of samples
what: Pacific Decadal Oscillation Index
what: phenological event

what: precipitation
what: sample identification
what: sea level pressure
what: sea surface temperature
what: snowfall
what: societal event
what: streamflow
what: surface air temperature
what: surface pressure
what: surface temperature
what: temperature
what: tropical cyclone
what: wind direction
what: wind speed
broader term: data type

ice cores

definition: a data type that includes measurements made on land-based ice.
material: bulk atmosphere
material: bulk ice
material: carbon dioxide
material: carbon monoxide
material: dust
material: firn
material: methane
material: nitrate
material: nitrogen gas
material: nitrous oxide
material: non-sea-salt sulfate
material: oxygen gas
material: particles
material: snow
material: sulfate
what: ^{10}Be
what: $^{132}\text{Xe}/^{36}\text{Ar}$
what: $^{143}\text{Nd}/^{144}\text{Nd}$
what: ^{14}C
what: $^{14}\text{CO}/(^{14}\text{CO}+^{14}\text{CO}_2)$
what: $^{206}\text{Pb}/^{204}\text{Pb}$
what: $^{206}\text{Pb}/^{207}\text{Pb}$
what: $^{207}\text{Pb}/^{204}\text{Pb}$
what: $^{207}\text{Pb}/^{206}\text{Pb}$
what: $^{208}\text{Pb}/^{204}\text{Pb}$
what: $^{208}\text{Pb}/^{206}\text{Pb}$
what: $^{208}\text{Pb}/^{207}\text{Pb}$
what: ^{210}Pb
what: ^{36}Cl
what: ^3H
what: ^3He
what: $^3\text{He}/^4\text{He}$
what: ^4He
what: $^{84}\text{Kr}/^{36}\text{Ar}$

what: $^{87}\text{Sr}/^{86}\text{Sr}$
what: El Nino Southern Oscillation Index
what: International Geo Sample Number
what: North Atlantic Oscillation Index
what: accumulation rate
what: acetate
what: acidity
what: age
what: age at sample end
what: age at sample start
what: air content
what: air temperature
what: aluminum
what: ammonium
what: antimony
what: argon
what: arsenic
what: azimuth
what: barium
what: beryllium
what: beta activity
what: bismuth
what: black carbon
what: blue intensity
what: bromine
what: cadmium
what: calcium
what: carbon
what: carbon dioxide
what: carbon monoxide
what: cerium
what: cesium
what: chloride
what: chlorite
what: chromium
what: cobalt
what: collection date
what: collection elevation
what: copper
what: $\delta^{13}\text{C}$
what: $\delta^{15}\text{N}$
what: $\delta^{15}\text{N}$ excess
what: $\delta^{17}\text{O}$
what: $\delta^{17}\text{O}$ excess
what: $\delta^{18}\text{O}$
what: $\delta^2\text{H}$
what: $\delta^{40}\text{Ar}$
what: $\delta \text{Ar}/\text{N}_2$
what: $\delta \text{CO}_2/\text{N}_2$
what: $\delta \text{O}_2/\text{Ar}$
what: $\delta \text{O}_2/\text{N}_2$
what: density

what: depth
what: depth at sample end
what: depth at sample start
what: deuterium excess
what: diameter
what: dust
what: dysprosium
what: electrical conductivity
what: epsilon neodymium
what: erbium
what: europium
what: factor score
what: feldspar group
what: fluoride
what: formaldehyde
what: formate
what: formic acid
what: gadolinium
what: gas age
what: gas age at sample end
what: gas age at sample start
what: gold
what: grain size beta
what: grain size class
what: green intensity
what: hafnium
what: holmium
what: horizontal displacement
what: hydrogen carbonate
what: hydrogen ions
what: hydrogen peroxide
what: ice age
what: ice age at sample end
what: ice age at sample start
what: ice sheet elevation
what: ice temperature
what: illite
what: inclination
what: ion balance
what: iridium
what: iron
what: kaolinite
what: lanthanum
what: latitude
what: layer thickness
what: lead
what: lead/barium
what: lithium
what: lock-in depth
what: longitude
what: lutetium
what: magnesium

what: manganese
what: mass
what: melt
what: mercury
what: methane
what: methanesulfonate
what: methanesulfonic acid
what: mica group
what: mineral index
what: molybdenum
what: neodymium
what: nickel
what: nitrate
what: nitrite
what: nitrogen gas
what: nitrous oxide
what: non-sea-salt calcium
what: non-sea-salt sulfate
what: non-sea-salt sulfur
what: notes
what: number of samples
what: oxalate
what: oxide and hydroxide minerals
what: oxygen gas
what: pH
what: particles
what: phosphate
what: potassium
what: praseodymium
what: quartz
what: red intensity
what: rubidium
what: samarium
what: sample identification
what: scandium
what: sea salt
what: sea-salt sodium
what: silicate mineral
what: silver
what: smectite
what: snow temperature
what: sodium
what: strontium
what: sulfate
what: sulfur
what: sulfuric acid
what: surface air temperature
what: temperature
what: terbium
what: thallium
what: thinning function
what: thulium

what: tin
what: titanium
what: uranium
what: vanadium
what: vanillic acid
what: weight
what: ytterbium
what: yttrium
what: zinc
broader term: data type

insect

definition: a data type that includes measurements made on insect remains.
what: electrical conductivity
what: identified beetle
what: identified insect
what: identified midge
what: insect index
what: lake surface temperature
what: midge index
what: surface air temperature
what: temperature
what: total head capsules
broader term: data type

instrumental

definition: a data type that includes measurements of climate conditions and climate-dependent phenomena made by humans using modern meteorological instruments.
material: borate ion
material: bulk atmosphere
material: dissolved inorganic carbon
material: lake water
material: nitrate
material: precipitation
material: river water
material: sea surface
material: sea water
material: sediment pore water
material: snow
material: soil
what: Arctic Oscillation Index
what: Atlantic Multidecadal Oscillation Index
what: Atlantic Multidecadal Variability Index
what: C3 plants
what: C37 alkenone
what: C37:2 alkenone
what: C37:3 alkenone
what: C37:4 alkenone
what: C4 plants
what: California Current Index
what: Delta 14C
what: Dipole Mode Index

what: El Nino Southern Oscillation Index
what: El Nino event
what: Hadley circulation index
what: Interdecadal Pacific Oscillation Index
what: International Geo Sample Number
what: Intertropical Convergence Zone index
what: La Nina event
what: Nino 1+2 sea surface temperature index
what: Nino 3 sea surface temperature index
what: Nino 3.4 sea surface temperature index
what: Nino 4 sea surface temperature index
what: North Atlantic Oscillation Index
what: Northern Oscillation Index
what: Pacific Decadal Oscillation Index
what: Pacific-North American Pattern
what: Palmer Drought Severity Index
what: Palmer Hydrologic Drought Index
what: Palmer Modified Drought Index
what: South Asian Summer Monsoon Index
what: Southern Annular Mode
what: Southern Oscillation Index
what: Upwelling Index
what: actual/potential evapotranspiration
what: aerosol optical depth
what: air potential temperature
what: air temperature
what: alkalinity
what: alkenone unsaturation index
what: alkenone unsaturation index Uk37
what: alkenone unsaturation index Uk37 prime
what: ammonium
what: apparent oxygen utilization
what: aragonite saturation state
what: barium
what: bedrock elevation
what: biome
what: borate ion
what: boron
what: burned area
what: calcite saturation state
what: calcium
what: carbon dioxide
what: carbonate ion
what: chlorofluorocarbon
what: chlorofluorocarbon-11
what: chlorofluorocarbon-12
what: cloud cover
what: collection date
what: collection elevation
what: collection water depth
what: delta 11B
what: delta 13C

what: delta 15N
what: delta 18O
what: delta 2H
what: delta 2H apparent fractionation factor
what: density
what: deuterium excess
what: dissociation constant
what: dissolved inorganic carbon
what: dissolved oxygen
what: equilibrium line altitude
what: evaporation
what: evapotranspiration
what: fluorescence
what: geopotential height
what: growing degree days
what: hydrogen carbonate
what: hydrogen peroxide
what: ice break-up date
what: ice sheet elevation
what: ice sheet volume
what: ice temperature
what: inorganic compound index
what: lake area
what: lake level
what: lake surface temperature
what: lake water temperature
what: land surface temperature
what: land temperature
what: latitude
what: longitude
what: magnesium
what: maximum air temperature
what: maximum surface temperature
what: maximum temperature
what: methanesulfonic acid
what: minimum air temperature
what: minimum surface temperature
what: minimum temperature
what: nitrate
what: non-freezing days
what: notes
what: number of samples
what: pH
what: phosphate
what: plant available moisture
what: potassium
what: potential temperature
what: precipitation
what: precipitation minus evaporation
what: precipitation minus evapotranspiration
what: precipitation minus potential evapotranspiration
what: primary productivity

what: productivity
what: relative humidity
what: resistivity
what: runoff coefficient
what: salinity
what: sample identification
what: sea ice cover
what: sea level
what: sea level pressure
what: sea surface temperature
what: sea water potential temperature
what: sea water temperature
what: sigma-t
what: sigma-theta
what: snow temperature
what: snow water equivalent
what: snowfall
what: sodium
what: solar modulation potential
what: standardized precipitation evapotranspiration index
what: standardized precipitation index
what: storm track
what: streamflow
what: sulfate
what: surface air temperature
what: surface pressure
what: surface temperature
what: temperature
what: total dissolved solids
what: tropical cyclone
what: water table depth
what: wetland area
what: wind direction
what: wind speed
broader term: data type

lake levels

definition: a data type that quantifies past changes in lake elevation or lake depth, either directly or using reconstruction methods, based on shoreline deposits or sediment cores.
what: lake level
what: precipitation minus evaporation
broader term: data type

loess

definition: a data type that includes measurements made on silt-sized material that is deposited on the land surface by winds.
material: C16 n-alkanoic acid
material: C17 n-alkanoic acid
material: C18 n-alkanoic acid
material: C19 n-alkanoic acid
material: C20 n-alkanoic acid
material: C21 n-alkanoic acid

material: C22 n-alkanoic acid
material: C23 n-alkanoic acid
material: C24 n-alkanoic acid
material: C25 n-alkanoic acid
material: C26 n-alkanoic acid
material: C27 n-alkanoic acid
material: C28 n-alkanoic acid
material: C29 n-alkanoic acid
material: C30 n-alkanoic acid
material: C31 n-alkanoic acid
material: C32 n-alkanoic acid
material: C33 n-alkanoic acid
material: C34 n-alkanoic acid
material: dry sediment
material: loess
material: n-alkanoic acid
material: organic matter
material: quartz
material: sediment
material: wet sediment
what: C16 n-alkanoic acid
what: C17 n-alkanoic acid
what: C18 n-alkanoic acid
what: C19 n-alkanoic acid
what: C20 n-alkanoic acid
what: C21 n-alkanoic acid
what: C22 n-alkanoic acid
what: C23 n-alkanoic acid
what: C24 n-alkanoic acid
what: C25 n-alkanoic acid
what: C26 n-alkanoic acid
what: C27 n-alkanoic acid
what: C28 n-alkanoic acid
what: C29 n-alkanoic acid
what: C30 n-alkanoic acid
what: C31 n-alkanoic acid
what: C32 n-alkanoic acid
what: C33 n-alkanoic acid
what: C34 n-alkanoic acid
what: International Geo Sample Number
what: accumulation rate
what: age
what: age at sample end
what: age at sample start
what: anhysteretic remanent magnetization/isothermal remanent magnetization
what: anhysteretic remanent magnetization/magnetic susceptibility
what: anhysteretic remanent magnetization/saturation isothermal remanent magnetization
what: blue-yellow contrast
what: branched glycerol dialkyl glycerol tetraether
what: calcium carbonate
what: carbon
what: carbon/nitrogen

what: clay
what: coercivity
what: coercivity of remanence
what: collection date
what: collection elevation
what: delta 13C
what: delta 18O
what: delta 2H
what: density
what: depth
what: depth at sample end
what: depth at sample start
what: fatty acid
what: gastropod
what: glycerol dialkyl glycerol tetraether
what: grain size class
what: grain size kurtosis
what: grain size mean
what: grain size median
what: grain size skewness
what: grain size standard deviation
what: granule
what: identified gastropod
what: illite
what: initial magnetization slope
what: inorganic carbon
what: iron(III) oxide
what: isoprenoid glycerol dialkyl glycerol tetraether
what: latitude
what: lightness
what: longitude
what: magnetic susceptibility
what: mass magnetic susceptibility
what: maximum angular deviation
what: mineral matter
what: n-alkanoic acid
what: nitrogen
what: notes
what: number of samples
what: organic carbon
what: organic carbon/nitrogen
what: organic matter
what: proxy composite
what: red-green contrast
what: sample identification
what: sand
what: saturated fatty acid
what: sedimentation rate
what: silt
what: total gastropods
what: unsaturated fatty acid
what: volume magnetic susceptibility

broader term: data type

paleoceanography

definition: a data type that includes measurements on ocean sediment cores and other materials collected from the marine environment.

material: C16 n-alkanoic acid

material: C17 n-alkanoic acid

material: C18 n-alkanoic acid

material: C19 n-alkanoic acid

material: C20 n-alkanoic acid

material: C21 n-alkane

material: C21 n-alkanoic acid

material: C22 n-alkane

material: C22 n-alkanoic acid

material: C23 n-alkane

material: C23 n-alkanoic acid

material: C24 n-alkane

material: C24 n-alkanoic acid

material: C25 n-alkane

material: C25 n-alkanoic acid

material: C26 n-alkane

material: C26 n-alkanoic acid

material: C27 n-alkane

material: C27 n-alkanoic acid

material: C28 n-alkane

material: C28 n-alkanoic acid

material: C29 n-alkane

material: C29 n-alkanoic acid

material: C30 n-alkane

material: C30 n-alkanoic acid

material: C31 n-alkane

material: C31 n-alkanoic acid

material: C32 n-alkane

material: C32 n-alkanoic acid

material: C33 n-alkane

material: C33 n-alkanoic acid

material: C34 n-alkane

material: C34 n-alkanoic acid

material: C35 n-alkane

material: C37 alkenone

material: C37:2 alkenone

material: C37:3 alkenone

material: C37:4 alkenone

material: C38 alkenone

material: C38:2 alkenone

material: Cibicides kullenbergi

material: Cibicides sp.

material: Cibicidoides mundula

material: Cibicidoides pachyderma

material: Cibicidoides sp.

material: Cibicidoides wuellerstorfi

material: Globigerina bulloides

material: Globigerinella siphonifera
material: Globigerinella sp.
material: Globigerinoides ruber
material: Globigerinoides ruber pink
material: Globigerinoides ruber sensu lato
material: Globigerinoides ruber sensu stricto
material: Globigerinoides ruber white
material: Globorotalia crassaformis
material: Globorotalia hirsuta
material: Globorotalia inflata
material: Globorotalia menardii
material: Globorotalia sp.
material: Globorotalia truncatulinoides
material: Globorotalia truncatulinoides encrusted
material: Globorotalia truncatulinoides non-encrusted
material: Globorotalia tumida
material: Melonis barleeanus
material: Melonis sp.
material: Neogloboquadrina dutertrei
material: Neogloboquadrina incompta
material: Neogloboquadrina pachyderma
material: Neogloboquadrina pachyderma dextral
material: Neogloboquadrina pachyderma sinistral
material: Neogloboquadrina sp.
material: Nuttallides sp.
material: Nuttallides umbonifera
material: Orbulina sp.
material: Orbulina universa
material: Oridorsalis sp.
material: Oridorsalis umbonatus
material: Planulina sp.
material: Pulleniatina obliquiloculata
material: Pulleniatina sp.
material: Trilobatus sacculifer
material: Trilobatus sacculifer with sac
material: Trilobatus sacculifer without sac
material: Trilobatus sp.
material: Uvigerina peregrina
material: Uvigerina sp.
material: agglutinated foraminifer
material: alanine
material: alcohol
material: alkane
material: alkene
material: alkenone
material: amino acid
material: aromatic compound
material: asparagine
material: aspartic acid
material: aspartic acid and asparagine
material: benthic foraminifer
material: brassicasterol

material: calcareous benthic foraminifer
material: calcareous nannofossil
material: calcite
material: calcium carbonate
material: carbonate
material: cholesterol
material: coccolithophore
material: cysteine
material: diatom
material: dinosterol
material: dolomite
material: dry sediment
material: dust
material: fatty acid
material: fish
material: foraminifer
material: gastropod
material: glutamic acid
material: glutamic acid and glutamine
material: glutamine
material: glycerol dialkyl glycerol tetraether
material: glycine
material: highly-branched isoprenoid alkene
material: histidine
material: isoleucine
material: leucine
material: lignin
material: lysine
material: methionine
material: n-alkane
material: n-alkanoic acid
material: n-alkanol
material: organic matter
material: ostracod
material: palmitic acid
material: phenylalanine
material: planktic foraminifer
material: proline
material: sediment
material: serine
material: sponge
material: sterol
material: taraxerol
material: threonine
material: tryptophan
material: tyrosine
material: valine
material: volcanic material
material: wet sediment
what: $^{143}\text{Nd}/^{144}\text{Nd}$
what: $^{147}\text{Sm}/^{144}\text{Nd}$
what: $^{187}\text{Os}/^{188}\text{Os}$

what: 187Re/188Os
what: 206Pb/204Pb
what: 207Pb/204Pb
what: 207Pb/206Pb
what: 208Pb/204Pb
what: 208Pb/206Pb
what: 230Th
what: 230Th excess
what: 231Pa
what: 231Pa excess
what: 231Pa/230Th
what: 231Pa/230Th excess
what: 232Th
what: 234U
what: 238U
what: 238U/232Th
what: 32S
what: 87Rb/86Sr
what: 87Sr/86Sr
what: Antarctic Bottom Water
what: C10 n-alkane
what: C11 n-alkane
what: C12 n-alkane
what: C13 n-alkane
what: C14 n-alkane
what: C15 n-alkane
what: C16 n-alkane
what: C16 n-alkanoic acid
what: C17 n-alkane
what: C17 n-alkanoic acid
what: C18 n-alkane
what: C18 n-alkanoic acid
what: C19 n-alkane
what: C19 n-alkanoic acid
what: C20 n-alkane
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what: C28 n-alkanoic acid

what: C29 n-alkane
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what: C32 n-alkane
what: C32 n-alkanoic acid
what: C33 n-alkane
what: C33 n-alkanoic acid
what: C34 n-alkane
what: C34 n-alkanoic acid
what: C35 n-alkane
what: C37 alkenone
what: C37:2 alkenone
what: C37:3 alkenone
what: C37:4 alkenone
what: CIE X
what: CIE Y
what: CIE Z
what: *Cibicides kullenbergi*
what: *Cibicidoides lobatulus*
what: *Cibicidoides mundula*
what: *Cibicidoides pachyderma*
what: *Cibicidoides wuellerstorfi*
what: Delta 14C
what: *Globigerina bulloides*
what: *Globigerinella siphonifera*
what: *Globigerinoides ruber*
what: *Globigerinoides ruber pink*
what: *Globigerinoides ruber sensu lato*
what: *Globigerinoides ruber sensu stricto*
what: *Globigerinoides ruber white*
what: *Globorotalia crassaformis*
what: *Globorotalia hirsuta*
what: *Globorotalia inflata*
what: *Globorotalia menardii*
what: *Globorotalia truncatulinoides*
what: *Globorotalia truncatulinoides encrusted*
what: *Globorotalia truncatulinoides non-encrusted*
what: *Globorotalia tumida*
what: International Geo Sample Number
what: Margalef diversity index
what: *Melonis barleeanus*
what: *Neogloboquadrina dutertrei*
what: *Neogloboquadrina incompta*
what: *Neogloboquadrina pachyderma*
what: *Neogloboquadrina pachyderma dextral*
what: *Neogloboquadrina pachyderma sinistral*
what: Nino 1+2 sea surface temperature index
what: Nino 3 sea surface temperature index
what: Nino 3.4 sea surface temperature index

what: Nino 4 sea surface temperature index
what: North Atlantic Deep Water
what: North Pacific Intermediate Water
what: Nuttallides umbonifera
what: Orbulina universa
what: Oridorsalis umbonatus
what: P-wave amplitude
what: P-wave velocity
what: Pulleniatina obliquiloculata
what: S-ratio
what: Shannon diversity index
what: Simpson diversity index
what: Southern Oscillation Index
what: Trilobatus sacculifer
what: Trilobatus sacculifer with sac
what: Trilobatus sacculifer without sac
what: Uvigerina peregrina
what: accumulation rate
what: age
what: age at sample end
what: age at sample start
what: air temperature
what: alanine
what: albite
what: alcohol
what: alkali feldspar series
what: alkalinity
what: alkane
what: alkene
what: alkenone
what: alkenone unsaturation index
what: alkenone unsaturation index Uk37
what: alkenone unsaturation index Uk37 prime
what: alkenone unsaturation index Ume36
what: aluminum
what: aluminum oxide
what: aluminum/calcium
what: aluminum/titanium
what: amino acid
what: amphibole
what: anhysteretic remanent magnetization
what: anhysteretic remanent magnetization/isothermal remanent magnetization
what: anhysteretic remanent magnetization/magnetic susceptibility
what: anhysteretic remanent magnetization/saturation isothermal remanent magnetization
what: anorthite
what: anorthoclase
what: antimony
what: aragonite
what: araphid:raphid diatom
what: arborinol
what: area
what: arginine

what: aromatic compound
what: arsenic
what: average chain length
what: barium
what: barium excess
what: barium oxide
what: barium/aluminum
what: barium/calcium
what: barium/iron
what: barium/titanium
what: beryllium
what: biogenic silica
what: biotite series
what: bivalve
what: blue intensity
what: blue-yellow contrast
what: boron
what: boron/calcium
what: botryococcene
what: branched and isoprenoid tetraether index
what: branched glycerol dialkyl glycerol tetraether
what: brassicasterol
what: bromine
what: bromine/silicon
what: bytownite
what: cadmium
what: cadmium/calcium
what: calcite
what: calcium
what: calcium carbonate
what: calcium carbonate compensation depth
what: calcium dioxide
what: calcium oxide
what: calcium/iron
what: calcium/strontium
what: calcium/titanium
what: canonical correspondence analysis axis
what: carbon
what: carbon dioxide
what: carbon/nitrogen
what: carbonate
what: carbonate ion
what: carotenoid
what: centric:pennate diatom
what: cerium
what: cesium
what: chain length index
what: characteristic remanent magnetization
what: characteristic remanent magnetization declination
what: characteristic remanent magnetization inclination
what: chlorin
what: chlorine

what: chlorite
what: chlorophyll
what: cholesterol
what: chroma
what: chromium
what: clay
what: cleavelandite
what: cobalt
what: coccolithophore index
what: coercivity of remanence/coercivity
what: collection date
what: collection elevation
what: collection water depth
what: copper
what: correspondence analysis axis
what: cyclization index of branched tetraethers
what: delta 11B
what: delta 13C
what: delta 13C photosynthetic fractionation factor
what: delta 15N
what: delta 18O
what: delta 29Si
what: delta 2H
what: delta 30Si
what: delta 33S
what: delta 34S
what: delta 36S
what: delta reservoir age
what: density
what: depth
what: depth at sample end
what: depth at sample start
what: detrended correspondence analysis axis
what: diameter
what: diatom habitat-based index
what: diatom index
what: diatom morphology-based index
what: diatom ratio
what: diatom tolerance-based index
what: dinoflagellate index
what: dinosterol
what: dinosterol ice proxy with 25 carbon atoms index
what: dolomite
what: dust
what: dysprosium
what: echinoid index
what: epsilon neodymium
what: erbium
what: europium
what: event layer
what: factor score
what: fatty acid

what: feldspar group
what: foraminifer fragmentation
what: foraminiferal index
what: gadolinium
what: gallium
what: gamma radiation
what: germanium/silicon
what: glauconite
what: glycerol dialkyl glycerol tetraether
what: glycine
what: goethite
what: grain size class
what: grain size kurtosis
what: grain size mean
what: grain size median
what: grain size mode
what: grain size skewness
what: grain size standard deviation
what: granule
what: gravel
what: grayscale
what: green intensity
what: growth rate
what: hafnium
what: halite
what: hematite group
what: highly-branched isoprenoid alkene
what: holmium
what: hue
what: ice proxy with 25 carbon atoms
what: ice rafted debris
what: identified brachiopod
what: identified coccolithophore
what: identified diatom
what: identified dinoflagellate
what: identified echinoid
what: identified fish
what: identified foraminifer
what: identified gastropod
what: identified silicoflagellate
what: identified sponge
what: illite
what: impedance
what: initial magnetization slope
what: inorganic carbon
what: inorganic compound index
what: iridium
what: iron
what: iron oxide
what: iron/aluminum
what: iron/calcium
what: isoleucine

what: isoprenoid glycerol dialkyl glycerol tetraether
what: isothermal remanent magnetization
what: kaolinite
what: labradorite
what: lanthanum
what: latitude
what: lead
what: leucine
what: lightness
what: lignin
what: lithium
what: long-chain alkyl diol
what: longitude
what: lutetium
what: lysine
what: maghemite
what: magnesium
what: magnesium oxide
what: magnesium/aluminum
what: magnesium/calcium
what: magnetic susceptibility
what: magnetite
what: manganese
what: manganese oxide
what: manganese/aluminum
what: manganese/calcium
what: mass
what: mass magnetic susceptibility
what: maximum angular deviation
what: median destructive field
what: methylation index of branched tetraethers
what: mica group
what: microcline
what: mineral index
what: mineral matter
what: molybdenum
what: molybdenum/aluminum
what: muscovite
what: n-alkane
what: n-alkanoic acid
what: natural remanent magnetization
what: natural remanent magnetization/anhyseretic remanent magnetization
what: natural remanent magnetization/isothermal remanent magnetization
what: neodymium
what: neritic:pelagic diatom
what: nickel
what: niobium
what: nitrogen
what: notes
what: number of samples
what: octacosanol
what: oligoclase

what: organic carbon
what: organic compound
what: organic matter
what: orthoclase
what: osmium
what: oxygen
what: pH
what: paleointensity
what: phenol
what: phenylalanine
what: phosphorus
what: phosphorus oxide
what: phosphorus pentoxide
what: phosphorus/aluminum
what: phosphorus/titanium
what: phytane
what: phytol
what: plagioclase feldspar series
what: planktic:benthic diatom
what: planktic:benthic foraminifer
what: platinum
what: polycyclic aromatic hydrocarbon
what: porosity
what: potassium
what: potassium feldspar
what: potassium oxide
what: potassium/aluminum
what: potassium/titanium
what: praseodymium
what: precipitation
what: primary productivity
what: principal component
what: pristane
what: productivity
what: proline
what: provenance
what: pyrite
what: pyroxene
what: quartz
what: red intensity
what: red-green contrast
what: reflectance
what: relative sea level
what: reservoir age
what: resistivity
what: rhenium
what: rubidium
what: salinity
what: samarium
what: sample identification
what: sand
what: saponite

what: saturated fatty acid
what: saturation isothermal remanent magnetization
what: saturation isothermal remanent magnetization/initial magnetization slope
what: saturation isothermal remanent magnetization/magnetic susceptibility
what: saturation isothermal remanent magnetization/saturation isothermal magnetization
what: saturation magnetization
what: saturation remanent magnetization
what: saturation remanent magnetization/saturation magnetization
what: scandium
what: sea ice cover
what: sea level
what: sea surface temperature
what: sea water temperature
what: sedimentation rate
what: serine
what: serpentine
what: siderite
what: silicon
what: silicon dioxide
what: silicon/aluminum
what: silicon/strontium
what: silt
what: silver
what: smectite
what: sodium
what: sodium oxide
what: sodium/calcium
what: sortable silt mean grain size
what: sterol
what: strontium
what: strontium oxide
what: strontium/calcium
what: sulfur
what: sulfur/organic carbon
what: surface air temperature
what: tantalum
what: taraxerol
what: temperature
what: terbium
what: tetraether index of 86 carbon atoms
what: thallium
what: thorium
what: thorium/uranium
what: threonine
what: thulium
what: tin
what: titanite
what: titanium
what: titanium dioxide
what: titanium oxide
what: titanium/aluminum
what: titanium/calcium

what: total agglutinated foraminifers
what: total araphid diatoms
what: total asymmetrical biraphid diatoms
what: total benthic diatoms
what: total benthic foraminifers
what: total calcareous foraminifers
what: total calcareous nannofossils
what: total centric diatoms
what: total coccoliths
what: total cold water diatoms
what: total copiotrophic diatoms
what: total deep water diatoms
what: total diatoms
what: total dinocysts
what: total epithemoid diatoms
what: total eunotioid diatoms
what: total foraminifers
what: total freshwater diatoms
what: total gastropods
what: total ice diatoms
what: total monoraphid diatoms
what: total neritic diatoms
what: total nitzschioid diatoms
what: total oligotrophic diatoms
what: total ostracods
what: total pennate diatoms
what: total planktic diatoms
what: total planktic foraminifers
what: total radiolarians
what: total raphid diatoms
what: total saline diatoms
what: total salinity indifferent diatoms
what: total shallow water diatoms
what: total silicoflagellates
what: total sponge spicules
what: total surirelloid diatoms
what: total symmetrical biraphid diatoms
what: total warm water diatoms
what: tropical cyclone
what: tyrosine
what: unsaturated fatty acid
what: uranium
what: uranium/calcium
what: uranium/thorium
what: valine
what: value
what: vanadium
what: vanadium/aluminum
what: ventilation age
what: volcanic material
what: volume
what: volume magnetic susceptibility

what: water content
what: wave property
what: wavelength
what: weight
what: wind speed
what: ytterbium
what: yttrium
what: zinc
what: zinc/silicon
what: zircon
what: zirconium
what: zirconium dioxide
what: zirconium/aluminum
what: zirconium/strontium
broader term: data type

paleoclimatic modeling

definition: a data type that includes output from numerical models such as global climate models or proxy system models.
material: benthic foraminifer
material: bulk ice
material: calcium carbonate
material: dissolved inorganic carbon
material: sea surface
material: sea water
material: sediment
material: soil
what: ^{10}Be
what: ^{13}C
what: ^{14}C
what: ^{210}Pb
what: ^{36}Cl
what: ^7Be
what: Antarctic Bottom Water
what: Delta ^{14}C
what: Hadley circulation index
what: Intertropical Convergence Zone index
what: Nino 1+2 sea surface temperature index
what: Nino 3 sea surface temperature index
what: Nino 3.4 sea surface temperature index
what: Nino 4 sea surface temperature index
what: North Atlantic Deep Water
what: North Pacific Intermediate Water
what: aerosol optical depth
what: air potential temperature
what: air temperature
what: alkalinity
what: alpha cellulose
what: aragonite
what: aragonite saturation state
what: atmospheric boundary layer thickness
what: barotropic streamfunction

what: bedrock elevation
what: biomass burning
what: biome
what: burned area
what: calcite
what: calcite saturation state
what: canopy height
what: carbon
what: carbon dioxide
what: carbonate ion
what: cloud condensed water content
what: cloud cover
what: cloud ice content
what: cloud ice mixing ratio
what: cloud liquid water content
what: cloud liquid water mixing ratio
what: collection elevation
what: convective precipitation
what: convective snowfall
what: delta 13C
what: delta 15N
what: delta 18O
what: denitrification
what: diazotroph
what: dissolved inorganic carbon
what: dissolved iron
what: dissolved organic carbon
what: dissolved organic nitrogen
what: dissolved organic phosphorus
what: dissolved oxygen
what: dissolved phosphate
what: divergence
what: eastward wind speed
what: eustatic sea level
what: evaporation
what: evapotranspiration
what: excretion
what: export
what: geopotential height
what: grazing
what: ice sheet area
what: ice sheet calving
what: ice sheet elevation
what: ice sheet melt
what: ice sheet thickness
what: ice sheet velocity
what: ice sheet volume
what: ice sheet x velocity
what: ice sheet y velocity
what: ice temperature
what: insolation
what: iron

what: jet stream position
what: kinetic energy dissipation
what: lake level
what: lake surface temperature
what: lake water temperature
what: land surface temperature
what: land temperature
what: large-scale precipitation
what: large-scale snowfall
what: latent heat flux
what: latitude
what: leaf area index
what: litter carbon
what: longitude
what: longwave cloud radiative effect
what: maximum air temperature
what: maximum surface temperature
what: maximum temperature
what: meridional overturning streamfunction
what: minimum air temperature
what: minimum surface temperature
what: minimum temperature
what: mixed layer depth
what: mortality
what: nitrate
what: nitrogen fixation
what: northward ocean heat transport
what: northward ocean salt transport
what: northward wind speed
what: notes
what: organic carbon
what: organic matter
what: oxygen
what: phosphate
what: phytoplankton
what: planetary albedo
what: potential temperature
what: precipitable water
what: precipitation
what: precipitation minus evaporation
what: precipitation minus evapotranspiration
what: primary productivity
what: productivity
what: rainfall
what: relative humidity
what: relative sea level
what: relative vorticity
what: remineralization
what: runoff
what: salinity
what: sea ice cover
what: sea ice thickness

what: sea ice velocity
what: sea ice volume
what: sea ice x velocity
what: sea ice y velocity
what: sea level
what: sea level pressure
what: sea surface temperature
what: sea water potential temperature
what: sea water temperature
what: sea water velocity
what: sea water x velocity
what: sea water y velocity
what: sedimentation rate
what: sensible heat flux
what: shortwave cloud radiative effect
what: snow cover
what: snow depth
what: snow temperature
what: snow volume
what: snow water equivalent
what: snowfall
what: soil carbon
what: soil moisture
what: soil respiration
what: soil temperature
what: specific humidity
what: streamflow
what: subsurface runoff
what: surface air temperature
what: surface downward x stress
what: surface downward y stress
what: surface downwelling clear-sky longwave radiation
what: surface downwelling clear-sky shortwave radiation
what: surface downwelling longwave radiation
what: surface downwelling shortwave radiation
what: surface geopotential
what: surface heat flux
what: surface net downward clear-sky longwave radiation
what: surface net downward clear-sky shortwave radiation
what: surface net downward longwave radiation
what: surface net downward radiation
what: surface net downward shortwave radiation
what: surface net upward clear-sky longwave radiation
what: surface net upward longwave radiation
what: surface pressure
what: surface runoff
what: surface temperature
what: surface type
what: surface upwelling clear-sky longwave radiation
what: surface upwelling clear-sky shortwave radiation
what: surface upwelling longwave radiation
what: surface upwelling shortwave radiation

what: temperature
what: temperature tendency
what: top-of-atmosphere net downward clear-sky longwave radiation
what: top-of-atmosphere net downward clear-sky shortwave radiation
what: top-of-atmosphere net downward longwave radiation
what: top-of-atmosphere net downward shortwave radiation
what: top-of-atmosphere net upward clear-sky longwave radiation
what: top-of-atmosphere net upward longwave radiation
what: top-of-atmosphere net upward shortwave radiation
what: top-of-atmosphere outgoing clear-sky longwave radiation
what: top-of-atmosphere outgoing clear-sky shortwave radiation
what: top-of-atmosphere outgoing longwave radiation
what: top-of-atmosphere outgoing shortwave radiation
what: transpiration
what: tree ring standardized growth index
what: upward sea water velocity
what: vegetation carbon
what: ventilation age
what: vertical pressure velocity
what: virtual salt flux
what: wind speed
what: zooplankton
broader term: data type

paleolimnology

definition: a data type that includes measurements made on lake or bog deposits.
material: C16 n-alkanoic acid
material: C17 n-alkanoic acid
material: C18 n-alkanoic acid
material: C19 n-alkanoic acid
material: C20 n-alkanoic acid
material: C21 n-alkane
material: C21 n-alkanoic acid
material: C22 n-alkane
material: C22 n-alkanoic acid
material: C23 n-alkane
material: C23 n-alkanoic acid
material: C24 n-alkane
material: C24 n-alkanoic acid
material: C25 n-alkane
material: C25 n-alkanoic acid
material: C26 n-alkane
material: C26 n-alkanoic acid
material: C27 n-alkane
material: C27 n-alkanoic acid
material: C28 n-alkane
material: C28 n-alkanoic acid
material: C29 n-alkane
material: C29 n-alkanoic acid
material: C30 n-alkane
material: C30 n-alkanoic acid
material: C31 n-alkane

material: C31 n-alkanoic acid
material: C32 n-alkane
material: C32 n-alkanoic acid
material: C33 n-alkane
material: C33 n-alkanoic acid
material: C34 n-alkane
material: C34 n-alkanoic acid
material: C35 n-alkane
material: C37 alkenone
material: C37:2 alkenone
material: C37:3 alkenone
material: C37:4 alkenone
material: C38 alkenone
material: C38:2 alkenone
material: acetic acid
material: alkane
material: alkene
material: alkenone
material: aragonite
material: aromatic compound
material: brassicasterol
material: calcite
material: calcium carbonate
material: cholesterol
material: diatom
material: dinosterol
material: dry sediment
material: dust
material: ehippia
material: fatty acid
material: foraminifer
material: gastropod
material: glycerol dialkyl glycerol tetraether
material: gypsum
material: highly-branched isoprenoid alkene
material: lignin
material: midge
material: n-alkane
material: n-alkanoic acid
material: n-alkanol
material: organic matter
material: ostracod
material: peat
material: sediment
material: sterol
material: taraxerol
material: wet sediment
what: 137Cs
what: 87Sr/86Sr
what: C10 n-alkane
what: C11 n-alkane
what: C12 n-alkane

what: C13 n-alkane
what: C14 n-alkane
what: C15 n-alkane
what: C16 n-alkane
what: C16 n-alkanoic acid
what: C17 n-alkane
what: C17 n-alkanoic acid
what: C18 n-alkane
what: C18 n-alkanoic acid
what: C19 n-alkane
what: C19 n-alkanoic acid
what: C20 n-alkane
what: C20 n-alkanoic acid
what: C21 n-alkane
what: C21 n-alkanoic acid
what: C22 n-alkane
what: C22 n-alkanoic acid
what: C23 n-alkane
what: C23 n-alkanoic acid
what: C24 n-alkane
what: C24 n-alkanoic acid
what: C25 n-alkane
what: C25 n-alkanoic acid
what: C26 n-alkane
what: C26 n-alkanoic acid
what: C27 n-alkane
what: C27 n-alkanoic acid
what: C28 n-alkane
what: C28 n-alkanoic acid
what: C29 n-alkane
what: C29 n-alkanoic acid
what: C3 plants
what: C30 n-alkane
what: C30 n-alkanoic acid
what: C31 n-alkane
what: C31 n-alkanoic acid
what: C32 n-alkane
what: C32 n-alkanoic acid
what: C33 n-alkane
what: C33 n-alkanoic acid
what: C34 n-alkane
what: C34 n-alkanoic acid
what: C35 n-alkane
what: C37 alkenone
what: C37:2 alkenone
what: C37:3 alkenone
what: C37:4 alkenone
what: C4 plants
what: CIE X
what: CIE Y
what: CIE Z
what: El Nino event

what: International Geo Sample Number
what: North Atlantic Oscillation Index
what: P-aqueous
what: P-wave amplitude
what: P-wave velocity
what: S-ratio
what: Simpson diversity index
what: Southern Oscillation Index
what: absorbance
what: accumulation rate
what: age
what: age at sample end
what: age at sample start
what: air temperature
what: alanine
what: albite
what: alcohol
what: alcohol
what: alkali feldspar series
what: alkane
what: alkene
what: alkenone
what: alkenone unsaturation index
what: alkenone unsaturation index Uk37
what: alkenone unsaturation index Uk37 prime
what: alkenone unsaturation index Ume36
what: almandine
what: aluminum
what: aluminum oxide
what: aluminum/titanium
what: amarillite
what: amino acid
what: amphibole
what: anapaite
what: andesine
what: andradite
what: anglesite
what: anhysteretic remanent magnetization
what: anhysteretic remanent magnetization/isothermal remanent magnetization
what: anhysteretic remanent magnetization/magnetic susceptibility
what: anhysteretic remanent magnetization/saturation isothermal remanent magnetization
what: ankerite
what: anorthite
what: antimony
what: aragonite
what: araphid:raphid diatom
what: arborinol
what: argon
what: aromatic compound
what: arsenic
what: aspartic acid and asparagine
what: average chain length

what: barium
what: barium/calcium
what: bearsite
what: beryllium
what: billietite
what: biogenic silica
what: biotite series
what: birnessite
what: bismite
what: bismuth
what: bivalve
what: blue intensity
what: blue-yellow contrast
what: blödite
what: boron
what: botryococcene
what: branched and isoprenoid tetraether index
what: branched glycerol dialkyl glycerol tetraether
what: brassicasterol
what: bromine
what: brushite
what: butlerite
what: cadmium
what: calcite
what: calcium
what: calcium carbonate
what: calcium oxide
what: calcium/potassium
what: calcium/titanium
what: canonical correspondence analysis axis
what: caracolite
what: carbohydrate
what: carbon
what: carbon preference index
what: carbon/nitrogen
what: carbon/sulfur
what: carbonate
what: carotenoid
what: cebaite
what: cellulose
what: centric:pennate diatom
what: cerium
what: cesium
what: chain length index
what: chalcocite
what: chalcosiderite
what: chamosite
what: characteristic remanent magnetization
what: characteristic remanent magnetization declination
what: characteristic remanent magnetization inclination
what: charcoal
what: chkalovite

what: chlorin
what: chlorine
what: chlorine/potassium
what: chlorite
what: chlorophyll
what: cholestanol
what: cholesterol
what: chromium
what: chrysoberyl
what: clay
what: clinocllore
what: clinoenstatite
what: cobalt
what: coercivity
what: coercivity of remanence
what: coercivity of remanence/coercivity
what: coherent scattering
what: collection date
what: collection elevation
what: collection water depth
what: copper
what: coprostanol
what: cordierite
what: correspondence analysis axis
what: covellite
what: cristobalite
what: cronstedtite
what: cyclization index of branched tetraethers
what: delta 13C
what: delta 15N
what: delta 18O
what: delta 2H
what: delta 87Sr
what: density
what: depth
what: depth at sample end
what: depth at sample start
what: detrended correspondence analysis axis
what: diatom habitat-based index
what: diatom index
what: diatom morphology-based index
what: diatom ratio
what: diatom tolerance-based index
what: dinosterol
what: dinosterol ice proxy with 25 carbon atoms index
what: dolomite
what: dust
what: electrical conductivity
what: elpidite
what: empirical orthogonal function
what: epicoprostanol
what: equilibrium line altitude

what: event layer
what: fatty acid
what: feldspar group
what: galactosan
what: gallium
what: gamma radiation
what: gaultite
what: geocronite
what: germanium
what: glauberite
what: glutamic acid and glutamine
what: glycerol dialkyl glycerol tetraether
what: glycine
what: gold
what: grain size class
what: grain size kurtosis
what: grain size mean
what: grain size median
what: grain size mode
what: grain size skewness
what: grain size standard deviation
what: granule
what: gravel
what: grayscale
what: green intensity
what: gypsum
what: hafnium
what: halite
what: highly-branched isoprenoid alkene
what: humification index
what: hydrogen
what: hydrogen index
what: ice proxy with 25 carbon atoms
what: ice rafted debris
what: identified chlorophyte
what: identified cladoceran
what: identified diatom
what: identified foraminifer
what: identified gastropod
what: identified midge
what: identified sponge
what: identified testate amoeba
what: illite
what: incoherenarrower term:coherent scattering
what: incoherent scattering
what: initial magnetization slope
what: inorganic carbon
what: insoluble acetic acid
what: iridium
what: iron
what: iron(III) oxide
what: iron/calcium

what: iron/manganese
what: iron/potassium
what: iron/titanium
what: isoleucine
what: isoprenoid glycerol dialkyl glycerol tetraether
what: isothermal remanent magnetization
what: kaersutite
what: kaolinite
what: karelianite
what: lake area
what: lake level
what: lake surface temperature
what: lanthanum
what: latitude
what: lead
what: leakeite
what: letovicite
what: leucine
what: levoglucosan
what: lightness
what: lignin
what: lithium
what: long-chain alkyl diol
what: longitude
what: lysine
what: magnesium
what: magnesium oxide
what: magnesium/calcium
what: magnetic susceptibility
what: magnetite
what: manganese
what: manganese oxide
what: manganese/calcium
what: manganese/iron
what: manganese/titanium
what: mannosan
what: mass
what: mass magnetic susceptibility
what: maximum angular deviation
what: mercallite
what: mercury
what: methylation index of branched tetraethers
what: mica group
what: microcline
what: midge index
what: mineral index
what: mineral matter
what: modal chain length
what: molybdenum
what: muscovite
what: n-alkane
what: n-alkanoic acid

what: natural remanent magnetization
what: natural remanent magnetization/anhyseretic remanent magnetization
what: natural remanent magnetization/isothermal remanent magnetization
what: nickel
what: niobium
what: niobium/titanium
what: nitrogen
what: nitrogen/phosphorus
what: nitrogen/sulfur
what: non-freezing days
what: notes
what: number of samples
what: octacosanol
what: organic carbon
what: organic carbon/nitrogen
what: organic compound
what: organic compound mineral
what: organic matter
what: organism index
what: oxygen
what: oxygen index
what: pH
what: paleointensity
what: palladium
what: palmitic acid
what: peat
what: phenol
what: phenylalanine
what: phosphate
what: phosphorus
what: phosphorus pentoxide
what: phosphorus/titanium
what: phytane
what: phytol
what: phytoliths
what: plagioclase feldspar series
what: planktic:benthic diatom
what: platinum
what: polonium
what: polycyclic aromatic hydrocarbon
what: polyolithionite
what: porosity
what: potassium
what: potassium feldspar
what: potassium oxide
what: potassium/titanium
what: precipitation
what: precipitation minus evaporation
what: principal component
what: pristane
what: proline
what: proustite

what: pyrope
what: quartz
what: red intensity
what: red-green contrast
what: reflectance
what: reservoir age
what: resistivity
what: rhenium
what: rhodochrosite
what: richterite
what: rubidium
what: sample identification
what: sand
what: saturated fatty acid
what: saturation isothermal magnetization
what: saturation isothermal remanent magnetization
what: saturation isothermal remanent magnetization/initial magnetization slope
what: saturation isothermal remanent magnetization/saturation isothermal magnetization
what: saturation magnetization
what: saturation remanent magnetization
what: saturation remanent magnetization/saturation magnetization
what: scandium
what: sedimentation rate
what: selenium
what: serine
what: silicon
what: silicon dioxide
what: silicon dioxide/phosphorus
what: silicon/potassium
what: silicon/titanium
what: silt
what: silver
what: sitostanol
what: sitosterol
what: sodium
what: sodium oxide
what: sodium/calcium
what: soluble acetic acid
what: sterol
what: streamflow
what: strontium
what: strontium/calcium
what: strontium/potassium
what: strontium/titanium
what: sulfur
what: sulfur/potassium
what: sulfur/titanium
what: surface air temperature
what: tantalum
what: taraxerol
what: technetium
what: temperature

what: terrestrial to aquatic ratio
what: tetraether index of 86 carbon atoms
what: thallium
what: thenardite
what: threonine
what: tin
what: titanite
what: titanium
what: titanium dioxide
what: titanium/potassium
what: total acidiphilic diatoms
what: total aerophilic diatoms
what: total alkaliphilic diatoms
what: total araphid diatoms
what: total asymmetrical biraphid diatoms
what: total benthic diatoms
what: total centric diatoms
what: total chrysophyte cysts
what: total chrysophyte scales
what: total cold water diatoms
what: total copiotrophic diatoms
what: total deep water diatoms
what: total diatoms
what: total dissolved solids
what: total edaphic diatoms
what: total ehippia
what: total epilithic diatoms
what: total epipelagic diatoms
what: total epiphytic diatoms
what: total epipsammic diatoms
what: total epithemoid diatoms
what: total epizoic diatoms
what: total eunotioid diatoms
what: total freshwater diatoms
what: total gastropods
what: total head capsules
what: total ice diatoms
what: total meroplanktic diatoms
what: total monoraphid diatoms
what: total nitzschioid diatoms
what: total oligotrophic diatoms
what: total ostracods
what: total pennate diatoms
what: total planktic diatoms
what: total raphid diatoms
what: total rheophilic diatoms
what: total saline diatoms
what: total salinity indifferent diatoms
what: total shallow water diatoms
what: total species
what: total sponge spicules
what: total surirelloid diatoms

what: total symmetrical biraphid diatoms
what: total testate amoebae
what: total tychoplanktic diatoms
what: total warm water diatoms
what: transmittance
what: tropical cyclone
what: tungsten
what: tyrosine
what: unsaturated fatty acid
what: uranium/calcium
what: valine
what: vanadium
what: varve thickness
what: vegetation change index
what: vivianite
what: volcanic material
what: volume
what: volume magnetic susceptibility
what: water content
what: water table depth
what: wave property
what: weight
what: wetland area
what: yttrium
what: zinc
what: zirconium
what: zirconium/potassium
broader term: data type

speleothems

definition: a data type that includes measurements made on cave deposits.
material: aragonite
material: calcite
material: calcium carbonate
material: fluid inclusion
material: glycerol dialkyl glycerol tetraether
material: mixed calcite/aragonite
what: $^{87}\text{Sr}/^{86}\text{Sr}$
what: International Geo Sample Number
what: North Atlantic Oscillation Index
what: age
what: age at sample end
what: age at sample start
what: aluminum oxide
what: aragonite
what: barium
what: barium/calcium
what: biogenic silica
what: calcite
what: calcium carbonate
what: cerium
what: collection date

what: collection elevation
what: delta 13C
what: delta 18O
what: delta 2H
what: depth
what: depth at sample end
what: depth at sample start
what: event layer
what: grayscale
what: growth rate
what: ice sheet elevation
what: iron oxide
what: lanthanum
what: lanthanum/cerium
what: lanthanum/thorium
what: latitude
what: longitude
what: luminescence
what: magnesium
what: magnesium oxide
what: magnesium/calcium
what: neodymium
what: notes
what: number of samples
what: phosphorus pentoxide
what: praseodymium
what: precipitation
what: principal component
what: sample identification
what: silicon dioxide
what: strontium
what: strontium/calcium
what: sulfur/calcium
what: surface air temperature
what: temperature
what: thorium
what: yttrium
broader term: data type

tree ring

definition: a data type that includes measurements made on the rings of trees.
material: alpha cellulose
material: cellulose
material: earlywood
material: earlywood alpha cellulose
material: earlywood cellulose
material: latewood
material: latewood alpha cellulose
material: latewood cellulose
material: wood
what: Arctic Oscillation Index
what: Atlantic Multidecadal Oscillation Index

what: California Current Index
what: El Nino Southern Oscillation Index
what: Hadley circulation index
what: International Geo Sample Number
what: North Atlantic Oscillation Index
what: Pacific Decadal Oscillation Index
what: Pacific-North American Pattern
what: Palmer Drought Severity Index
what: Palmer Hydrologic Drought Index
what: Palmer Modified Drought Index
what: South Asian Summer Monsoon Index
what: Southern Annular Mode
what: Southern Oscillation Index
what: age
what: age at sample end
what: age at sample start
what: angle
what: average cell wall thickness
what: average microfibril angle
what: basal area increment
what: basal area mass increment
what: blue intensity
what: cloud cover
what: collection date
what: collection elevation
what: delta 13C
what: delta 15N
what: delta 18O
what: delta 2H
what: density
what: depth
what: depth at sample end
what: depth at sample start
what: diameter
what: earlywood
what: earlywood density
what: earlywood tracheid diameter
what: earlywood width
what: event layer
what: geopotential height
what: growing degree days
what: lake level
what: land surface temperature
what: latewood
what: latewood density
what: latewood width
what: latitude
what: longitude
what: maximum density
what: maximum surface temperature
what: maximum temperature
what: minimum density

what: minimum surface temperature
what: moisture index
what: notes
what: number of samples
what: phenological event
what: precipitation
what: precipitation minus potential evapotranspiration
what: reflectance
what: relative humidity
what: runoff coefficient
what: sample identification
what: sea level pressure
what: sea surface temperature
what: snow water equivalent
what: standardized precipitation evapotranspiration index
what: standardized precipitation index
what: storm track
what: streamflow
what: surface air temperature
what: surface downwelling shortwave radiation
what: temperature
what: total ring density
what: total ring width
what: tracheid diameter
what: tree ring standardized growth index
broader term: data type

detail

definition: Alterations or transformations made to the raw data.

narrower term: anomalized

narrower term: averaged

narrower term: composited

narrower term: corrected

narrower term: detrended

narrower term: differenced

narrower term: filtered

narrower term: infilled

narrower term: interpolated

narrower term: log-transformed

narrower term: normalized

narrower term: raw

narrower term: resampled

narrower term: smoothed

narrower term: whitened

anomalized

definition: a data transformation that involves subtracting a long-term mean value from all time series values. The reference period, or time period over which the long-term mean was calculated, should be specified in the "Additional Information" field.

broader term: detail

averaged

definition: a data transformation that involves averaging multiple values to obtain a mean value, often in the case of replicate analyses.

broader term: detail

composited

definition: a data transformation that involves combining multiple time series into one, often by normalizing each and then averaging, although different methods exist.

broader term: detail

corrected

definition: a data transformation that involves correcting one or more values in a time series for known, often non-climatic, factors. These factors include, for example, changes in ice volume through time, the Suess effect, and biological offsets. The specific correction made should be explained in the "Additional Information" field.

broader term: detail

detrended

definition: a data transformation that involves subtracting the long-term trend from a time series.

broader term: detail

differenced

definition: a data transformation that involves subtracting a value or a time series from another time series.
broader term: detail

filtered

definition: a data transformation that involves removing selected frequencies from a time series.
broader term: detail

infilled

definition: a data transformation that involves replacing missing values with data values estimated using some statistical technique.
broader term: detail

interpolated

definition: a data transformation that involves calculating values between sampling points in the time series.
broader term: detail

log-transformed

definition: a data transformation that involves applying the logarithm function, generally to reduce the skew of the data distribution.
broader term: detail

normalized

definition: a data transformation that involves subtracting the long-term mean from a time series and then dividing by the series' standard deviation.
broader term: detail

raw

definition: no data transformations or alterations were performed.
broader term: detail

resampled

definition: a data transformation that involves changing the frequency of time series observations.
broader term: detail

smoothed

definition: a data transformation that involves processing to remove fine-scale features while retaining larger-scale patterns.
broader term: detail

whitened

definition: a data transformation that involves processing data to make it behave statistically like white noise.
broader term: detail

method

definition: techniques, methods, procedures, or strategies for collection or analysis of scientific information

narrower term: computational method

narrower term: field method

narrower term: laboratory method

narrower term: sampling method

accelerator mass spectrometry

definition: mass spectrometry where the sample is ionized and the ions are accelerated to very high kinetic energies (http://purl.obolibrary.org/obo/CHMO_0000471).

broader term: mass spectrometry

synonym: AMS

alternating current electrical conductivity measurement

definition: an electrical conductivity measurement in which two electrodes with an alternating current potential difference are applied to a material and the conductance of the material is measured, yielding information about ion content.

broader term: electrical conductivity measurement

analogue method

definition: a statistical technique that uses a dissimilarity measure between a sample and a set of standards to identify the environmental conditions likely present at the time of the sample.

broader term: statistical analysis

narrower term: modern analogue technique

ARSTAN

definition: a tree ring chronology method that uses Program ARSTAN, developed by Dr. Edward R. Cook at the Tree-Ring Laboratory, Lamont-Doherty Earth Observatory of Columbia University, Palisades, New York (Cook 1985), in its standard configuration but with autoregressive modeling to remove autocorrelation and further reincorporation of the pooled autoregression (persistence) into the resultant chronology.

broader term: tree ring chronology method

artificial neural network

definition: a statistical method that uses an iterative learning or training process to model the relationship between predictor and predictand variables while minimizing error. The goal of this method is to identify and represent complex and often nonlinear relationships directly from the data being modeled.

broader term: statistical analysis

atomic absorption spectroscopy

definition: a type of atomic spectroscopy where the sample is illuminated with ultraviolet or visible light which is absorbed by the non-excited atoms at characteristic wavelengths (http://purl.obolibrary.org/obo/CHMO_0000234).

broader term: atomic spectroscopy

narrower term: flame atomic absorption spectrometry

narrower term: graphite furnace atomic absorption spectrometry

atomic spectroscopy

definition: a type of electronic spectroscopy that is based upon the ability of atoms to absorb or emit electromagnetic radiation. In atomic spectroscopy the sample is vaporised and then atomised (http://purl.obolibrary.org/obo/CHMO_0000233).

broader term: electronic spectroscopy

narrower term: atomic absorption spectroscopy

narrower term: cold vapor atomic fluorescence spectroscopy

narrower term: inductively-coupled plasma atomic emission spectroscopy

narrower term: laser-induced breakdown spectroscopy

barometric method

definition: a laboratory method of calculating air content of ice by measuring the pressure and temperature of air of a known volume.

RT: ice cores

broader term: laboratory method

Bayesian hierarchical modeling

definition: a statistical method that uses a model written in multiple levels (hierarchical form) that estimates the parameters of the posterior distribution using the Bayesian method (Wikipedia).

broader term: statistical analysis

Bayesian inference

definition: a method of statistical inference in which Bayes' theorem is used to update the probability for an hypothesis as more evidence or information becomes available (Wikipedia).

broader term: statistical analysis

beta-particle detection

definition: spectroscopy where the beta-particles spontaneously emitted from radioisotopes are detected (http://purl.obolibrary.org/obo/CHMO_0000321).[database_cross_reference: ISBN:0-19-280031-0]

broader term: spectroscopy

borehole logging

definition: a field method in which in situ physical measurements (e.g., temperature) are made down the length of a borehole by lowering measurement instruments down the borehole via cable.

broader term: field method

bulk sample

definition: a sample spacing method in which one bulk measurement is made from an archive (e.g., a core, rock, or shell).

broader term: sample spacing method

carbon coulometry

definition: a laboratory method that uses coulometric titration to quantify organic and inorganic carbon.

broader term: laboratory method

cavity ring-down spectroscopy

definition: a type of laser spectroscopy where the sample is placed inside a highly reflective laser cavity and an effect induced by the absorption of laser light is detected. The decay time for light exiting the cavity is determined as a function of pulsed laser wavelength

(http://purl.obolibrary.org/obo/CHMO_0000450).

broader term: laser spectroscopy
synonym: cavity ring-down laser absorption spectroscopy
synonym: cavity ring-down spectrometry
synonym: cavity ringdown spectroscopy

chromatography

definition: laboratory methods that are used to separate or partition the components of a gaseous or liquid mixture by differences in absorption rates during flow around or over surface absorbents such as columns of silica, filter papers, or gels (http://purl.obolibrary.org/obo/CHMO_0001000).
broader term: laboratory method
narrower term: gas chromatography
narrower term: ion chromatography
narrower term: liquid chromatography

cold vapor atomic fluorescence spectroscopy

definition: a type of atomic fluorescence spectroscopy where no vaporisation step is required because the sample is a volatile heavy metal such as mercury, which is a vapour at room temperature (http://purl.obolibrary.org/obo/CHMO_0000280).
broader term: atomic spectroscopy

composite plus regression

definition: a compositing method that combines multiple proxy records into one by first standardizing each, next averaging all, and last using regression to calibrate the composite time series to a calibration time series.
broader term: compositing method

composite plus scale

definition: a compositing method of combining multiple proxy records into one by first standardizing each, next averaging all, and last centering and scaling the resultant time series to match the variance of a target calibration time series.
broader term: compositing method

compositing method

definition: a statistical method that combines multiple time series into one, for example by normalizing each and taking a simple average.
broader term: statistical analysis
narrower term: composite plus regression
narrower term: composite plus scale

computational method

definition: an analysis method that applies mathematical techniques to numerical data.
broader term: method
synonym: mathematical methods
narrower term: numerical simulation
narrower term: statistical analysis
narrower term: tree ring chronology method

computed tomography

definition: image analysis in which many individual images, often from x-radiography, are taken and processed by a computer to generate cross-sectional (tomographic) views.
broader term: image analysis
narrower term: micro computed tomography

continuous flow analysis

definition: a sampling method in which samples are injected sequentially into the same flowing carrier solution.

broader term: sampling method

synonym: CFA

continuous line

definition: a sample spacing method in which samples are extracted from an archive (e.g., a core) contiguously.

broader term: sample spacing method

continuous-flow isotope ratio mass spectrometry

definition: mass spectrometry where the relative abundance of isotopes in a sample is determined. Measurements are taken immediately after sample preparation and separately to the standard gas (http://purl.obolibrary.org/obo/CHMO_0000506).

broader term: isotope ratio mass spectrometry

densitometry

definition: a laboratory method that measures optical density in light-sensitive materials due to exposure to electromagnetic radiation.

broader term: laboratory method

narrower term: fluorodensitometry

narrower term: gamma ray densitometry

narrower term: x-ray densitometry

dielectric profiling

definition: an electrical conductivity measurement in which the impedance of a material is measured between two conductive plates, yielding information about the concentration of ions.

broader term: electrical conductivity measurement

synonym: DEP

diffraction and scattering methods

definition: laboratory methods that measure the change in direction or intensity of electromagnetic radiation applied to a sample.

broader term: laboratory method

narrower term: laser light scattering

narrower term: x-ray diffraction

direct current electrical conductivity measurement

definition: an electrical conductivity measurement in which two electrodes with a direct current potential difference are applied to a material and the current flowing through the material is measured, yielding information about hydrogen ions (acidity).

broader term: electrical conductivity measurement

synonym: ECM

discrete spot

definition: a sample spacing method in which samples are extracted from an archive (e.g., a core) non-contiguously.

broader term: sample spacing method

dual-inlet isotope ratio mass spectrometry

definition: mass spectrometry where purified gas obtained from a sample is alternated rapidly with a standard gas (of known isotopic composition) by means of a system of valves, so that a number of comparative measurements are made of both gases. The relative abundance of isotopes in a sample is then determined (http://purl.obolibrary.org/obo/CHMO_0000886).

broader term: isotope ratio mass spectrometry

electric sensing particle size analysis

definition: particle size analysis that measures changes in electrical resistance as particles in an electrolyte solution are drawn through an orifice.

broader term: particle size analysis

synonym: coulter counter

electrical conductivity measurement

definition: a laboratory method to measure how well a solution conducts electricity.

broader term: laboratory method

narrower term: alternating current electrical conductivity measurement

narrower term: dielectric profiling

narrower term: direct current electrical conductivity measurement

electron microscopy

definition: microscopy where the specimen is bombarded with a finely focused (

broader term: microscopy

electron probe x-ray microanalysis

definition: xray emission spectroscopy where the X-rays are generated by bombarding a flat polished sample with a finely focused beam of electrons (http://purl.obolibrary.org/obo/CHMO_0000313).

broader term: x-ray spectroscopy

synonym: electron microprobe analysis

synonym: electron probe microanalysis

electronic spectroscopy

definition: any spectroscopic method which probes the electronic degrees of freedom of an atom or molecule (http://purl.obolibrary.org/obo/CHMO_0000232).

broader term: spectroscopy

narrower term: atomic spectroscopy

narrower term: spectrophotometry

electrospray ionization mass spectrometry

definition: mass spectrometry where the sample is ionised by electrospray ionization. The ions are then characterised by their mass-to-charge ratio and relative abundance (http://purl.obolibrary.org/obo/CHMO_0000482).

broader term: mass spectrometry

elemental analysis

definition: a type of elemental analysis accomplished by combustion of the sample at 1200 deg. C in a stream of unreactive gas and excess oxygen and collection of the products (CO₂, H₂O and NO_x). The masses of these combustion products can be used to calculate the composition of the unknown sample (http://purl.obolibrary.org/obo/CHMO_0001076).

broader term: laboratory method

energy-dispersive x-ray fluorescence spectroscopy

definition: x-ray emission spectroscopy where the energy spectrum of the X-rays emitted due to core-to-core transitions is measured using a semiconductor detector (http://purl.obolibrary.org/obo/CHMO_0000309).
broader term: x-ray fluorescence spectroscopy
synonym: ED-XRF
synonym: scanning x-ray fluorescence spectroscopy
synonym: scanning XRF

field method

definition: research procedures and instrumental means to measure, collect data and samples, and observe in the natural areas where the materials, phenomena, structures, or species being studied occur (USGS thesaurus).
broader term: method
narrower term: borehole logging

flame atomic absorption spectrometry

definition: a type of atomic absorption spectrometry where the sample is aspirated, aerosolised, and mixed with combustible gases, such as acetylene and air or acetylene and nitrous oxide. The mixture is then ignited and atomised in a flame whose temperature ranges from 2100--2800 degrees Celsius. During combustion, atoms of the element of interest in the sample absorb light at characteristic wavelengths (http://purl.obolibrary.org/obo/CHMO_0000243).
broader term: atomic absorption spectroscopy

fluorescence spectroscopy

definition: spectroscopy where the intensity of the fluorescence emitted by molecules excited by ultraviolet light is detected as a function of wavelength or time (http://purl.obolibrary.org/obo/CHMO_0000287).
broader term: luminescence spectroscopy

fluorodensitometry

definition: densitometry using applied fluorescence radiation.
broader term: densitometry

forward model

definition: a numerical simulation in which the current state is used to predict the next state, with adjustment of parameters to improve fit to observations.
broader term: numerical simulation

fourier transform infrared spectroscopy

definition: spectroscopy where the sample absorbs a single pulse of radiation from the infrared region (0.78--1000 μm) and the spectrum obtained is subject to a Fourier transform (http://purl.obolibrary.org/obo/CHMO_0000636).
broader term: vibrational spectroscopy

gamma ray attenuation porosity evaluation

definition: a gamma ray densitometry method that measures gamma ray attenuation through unsplit cores and provides an estimate for bulk density, water content, and porosity (Last and Smol, Tracking Environmental Change Using Lake Sediments).
broader term: gamma ray densitometry
synonym: GRAPE

gamma ray densitometry

definition: densitometry using applied gamma radiation.

broader term: densitometry
narrower term: gamma ray attenuation porosity evaluation

gas chromatography

definition: column chromatography where the mobile phase is a gas (http://purl.obolibrary.org/obo/CHMO_0001002).

broader term: chromatography

narrower term: gas chromatography - electron capture detection

narrower term: gas chromatography - flame ionization detection

narrower term: gas chromatography - thermal conductivity detection

gas chromatography - electron capture detection

definition: gas chromatography that uses a device that detects electron-absorbing components.

broader term: gas chromatography

gas chromatography - flame ionization detection

definition: gas chromatography in which eluent is mixed with H₂ and air and ignited. Any positively-charged radicals resulting from this process are collected at a cathode allowing the current to be measured (http://purl.obolibrary.org/obo/CHMO_0001736.)

broader term: gas chromatography

gas chromatography - thermal conductivity detection

definition: gas chromatography that uses a device that measures the change in thermal conductivity caused by a sample (http://purl.obolibrary.org/obo/CHMO_0001740).

broader term: gas chromatography

gas extraction method

definition: sampling methods that relate to the extraction of gas from bubbles in ice cores.

broader term: sampling method

narrower term: mechanical dry extraction

narrower term: sublimation

narrower term: wet extraction

graphite furnace atomic absorption spectrometry

definition: a type of atomic absorption spectrometry where the sample is atomised by placing it in a small graphite-coated tube which is rapidly heated by passing a current through it (http://purl.obolibrary.org/obo/CHMO_0000239).

broader term: atomic absorption spectroscopy

high-performance liquid chromatography

definition: column chromatography where the mobile phase is a liquid, the stationary phase consists of very small particles and the inlet pressure is relatively high (http://purl.obolibrary.org/obo/CHMO_0001009).

broader term: liquid chromatography

synonym: HPLC

image analysis

definition: a laboratory method that involves analyzing images that were made from a material using some form of electromagnetic radiation.

broader term: laboratory method

narrower term: computed tomography

narrower term: x-radiography

inductively-coupled plasma atomic emission spectroscopy

definition: a type of atomic emission spectrometry where a plasma generated by electromagnetic induction is used as the excitation source (http://purl.obolibrary.org/obo/CHMO_0000267).

broader term: atomic spectroscopy

synonym: ICP-AES

synonym: ICP-OES

synonym: inductively-coupled plasma optical emission spectrometry

inductively-coupled plasma field sector mass spectrometry

definition: mass spectrometry where the sample is ionised in a plasma (a partially ionised gas---such as Ar---containing free electrons) which has been generated by electromagnetic induction. The beam of ions is then directed into magnetic field, the orientation of which is perpendicular to the beam. The magnetic field forces the charged particles into different circular trajectories, the radii of which depend on the strength of the magnetic field, the accelerating voltage, and the mass of the ion (http://purl.obolibrary.org/obo/CHMO_0000547).

broader term: inductively-coupled plasma mass spectrometry

synonym: ICP-SF-MS

inductively-coupled plasma mass spectrometry

definition: plasma mass spectrometry where the plasma has been generated by electromagnetic induction (http://purl.obolibrary.org/obo/CHMO_0000538).

broader term: mass spectrometry

synonym: ICP-MS

narrower term: inductively-coupled plasma field sector mass spectrometry

narrower term: multiple collector inductively-coupled plasma mass spectrometry

narrower term: single collector inductively-coupled plasma mass spectrometry

inverse model

definition: a numerical model in which observations are combined with physical laws to produce estimates of parameters.

broader term: numerical simulation

ion chromatography

definition: column chromatography where the separation is caused by differences in ion-exchange affinity (http://purl.obolibrary.org/obo/CHMO_0001014).

broader term: chromatography

isotope dilution mass spectrometry

definition: mass spectrometry where the relative abundance of isotopes in a sample is determined by using an isotope dilution standard (the sample labelled with a rare isotope)

(http://purl.obolibrary.org/obo/CHMO_0000510).

broader term: isotope ratio mass spectrometry

isotope ratio mass spectrometry

definition: mass spectrometry where the relative abundance of isotopes in a sample is determined (http://purl.obolibrary.org/obo/CHMO_0000506).

broader term: mass spectrometry

narrower term: continuous-flow isotope ratio mass spectrometry

narrower term: dual-inlet isotope ratio mass spectrometry

narrower term: isotope dilution mass spectrometry

laboratory method

definition: experimental techniques to analyze and test samples in a place equipped and designed for the work (USGS thesaurus).

broader term: method

narrower term: barometric method

narrower term: carbon coulometry

narrower term: chromatography

narrower term: densitometry

narrower term: diffraction and scattering methods

narrower term: electrical conductivity measurement

narrower term: elemental analysis

narrower term: image analysis

narrower term: magnetic susceptibility measurement

narrower term: microscopy

narrower term: particle size analysis

narrower term: pyrolysis

narrower term: spectroscopy

laser ablation

definition: a sampling method in which material is removed from a specimen by illuminating it with a laser beam (http://purl.obolibrary.org/obo/CHMO_0001132).

broader term: sampling method

laser light scattering

definition: a method for determining structure by measuring the change in direction or energy of scattered visible light. Light (from a laser source) is scattered by the electrons surrounding the atomic nuclei in the sample (http://purl.obolibrary.org/obo/CHMO_0001182).

broader term: diffraction and scattering methods

laser particle size analysis

definition: particle size analysis that measures the angular variation in intensity of light scattered as a laser beam passes through a dispersed particulate sample (Malvern).

broader term: particle size analysis

laser spectroscopy

definition: a type of spectroscopy where the sample is illuminated with ultraviolet or visible light which is absorbed by the non-excited atoms at characteristic wavelengths (http://purl.obolibrary.org/obo/CHMO_0000234).

broader term: spectroscopy

narrower term: cavity ring-down spectroscopy

narrower term: optical feedback cavity enhanced absorption spectroscopy

narrower term: tunable diode laser absorption spectroscopy

laser-induced breakdown spectroscopy

definition: a type of atomic emission spectrometry where a high energy laser pulse is used to generate a plasma which acts as the excitation source (http://purl.obolibrary.org/obo/CHMO_0000258).

broader term: atomic spectroscopy

synonym: laser-induced plasma spectrometry

liquid chromatography

definition: column chromatography where the mobile phase is a liquid (http://purl.obolibrary.org/obo/CHMO_0001004).

broader term: chromatography
narrower term: high-performance liquid chromatography

loss on ignition

definition: pyrolysis that involves strongly heating ("igniting") a sample of material at a specified temperature, allowing volatile substances to escape, until its mass ceases to change. This may be done in air, or in some other reactive or inert atmosphere (Wikipedia).
broader term: pyrolysis

low-pass filter

definition: a tree ring chronology method that uses Program ARSTAN, developed by Dr. Edward R. Cook at the Tree-Ring Laboratory, Lamont-Doherty Earth Observatory of Columbia University, Palisades, New York (Cook 1985), and employs a low-pass filter.
broader term: tree ring chronology method

luminescence spectroscopy

definition: spectroscopy where the intensity of luminescence emitted by molecules excited is detected as a function of wavelength or time (http://purl.obolibrary.org/obo/CHMO_0002415).
broader term: spectroscopy
narrower term: fluorescence spectroscopy

magnetic susceptibility measurement

broader term: laboratory method
narrower term: magnetic susceptibility measurement with point or surface sensor
narrower term: magnetic susceptibility measurement with ring or loop sensor
narrower term: magnetic susceptibility measurement with single sample sensor

magnetic susceptibility measurement with point or surface sensor

definition: a magnetic susceptibility measurement that is made for surface scanning and for providing high-resolution surface measurements on split sediment or slabbed rock cores (Geotek).
broader term: magnetic susceptibility measurement

magnetic susceptibility measurement with ring or loop sensor

definition: magnetic susceptibility measurements made on whole (unsplit) sediment and rock cores.
broader term: magnetic susceptibility measurement

magnetic susceptibility measurement with single sample sensor

definition: magnetic susceptibility measurements made on single samples, removed from the sediment core.
broader term: magnetic susceptibility measurement

mass spectrometry

definition: spectroscopy where the sample is converted into gaseous ions which are characterised by their mass-to-charge ratio and relative abundance (http://purl.obolibrary.org/obo/CHMO_0000470).
broader term: spectroscopy
narrower term: accelerator mass spectrometry
narrower term: electrospray ionization mass spectrometry
narrower term: inductively-coupled plasma mass spectrometry
narrower term: isotope ratio mass spectrometry
narrower term: secondary ion mass spectrometry
narrower term: thermal ionization mass spectrometry

mechanical dry extraction

definition: a gas extraction method in which gas is liberated through mechanical rupturing of the ice (e.g., milling, shaving, cracking, grinding).

broader term: gas extraction method

micro computed tomography

definition: computed tomography conducted at high resolution to image small-scale structures of a material.

broader term: computed tomography

microscopy

definition: any technique where a microscope is used to view a small object (or specimen) by producing a magnified image (http://purl.obolibrary.org/obo/CHMO_0000067).

broader term: laboratory method

narrower term: electron microscopy

narrower term: optical microscopy

narrower term: scanning probe microscopy

narrower term: ultraviolet microscopy

narrower term: x-ray microscopy

modern analogue technique

definition: an analogue technique that uses modern observations as the set of standards against which a sample is compared.

broader term: analogue method

Monte Carlo simulation

definition: a statistical method that uses repeated random sampling, often to generate a probability distribution of likely values.

broader term: statistical analysis

multiple collector inductively-coupled plasma mass spectrometry

definition: mass spectrometry where the sample is ionised in a plasma (a partially ionised gas---such as Ar---containing free electrons) which has been generated by electromagnetic induction. A series of collectors is used to detect several ion beams simultaneously (http://purl.obolibrary.org/obo/CHMO_0000553).

broader term: inductively-coupled plasma mass spectrometry

synonym: MC ICP-MS

multiple collector secondary ion mass spectrometry

definition: secondary ion mass spectrometry in which a series of collectors is used to detect several ion beams simultaneously.

broader term: secondary ion mass spectrometry

numerical simulation

definition: a computational method that employs deterministic, mathematical expressions to represent a simplified view of real-world systems.

broader term: computational method

synonym: numerical methods

narrower term: forward model

narrower term: inverse model

optical feedback cavity enhanced absorption spectroscopy

definition: a type of laser spectroscopy where the sample is placed inside a v-shaped optical cavity and an effect induced by the absorption of laser light is detected. The laser light is allowed to feed back to the laser diode (http://purl.obolibrary.org/obo/CHMO_0000448).
broader term: laser spectroscopy

optical microscopy

definition: microscopy where the specimen is illuminated with visible light and a system of lenses is used to produce an image (http://purl.obolibrary.org/obo/CHMO_0000102).
broader term: microscopy
synonym: transmitted light microscopy

particle size analysis

definition: a laboratory method that counts or sizes particles in a sample.
broader term: laboratory method
narrower term: electric sensing particle size analysis
narrower term: laser particle size analysis
narrower term: x-ray particle size analysis

principal component analysis

definition: a statistical analysis that uses an orthogonal transformation to convert a set of observations of possibly correlated variables into a set of values of linearly uncorrelated variables called principal components (Wikipedia).
broader term: statistical analysis

pyrolysis

definition: a laboratory method that involves the chemical degradation of a sample by thermal energy in an inert environment (http://purl.obolibrary.org/obo/CHMO_0001502).
broader term: laboratory method
narrower term: loss on ignition
narrower term: rock eval pyrolysis

re-whitened residual

definition: a tree ring chronology method that uses Program ARSTAN, developed by Dr. Edward R. Cook at the Tree-Ring Laboratory, Lamont-Doherty Earth Observatory of Columbia University, Palisades, New York (Cook 1985), and re-whitens residuals.
broader term: tree ring chronology method

regression analysis

definition: a statistical analysis that is based on the relationships of two or more related variables, allowing prediction of values of one variable when values of any other related variable(s) are given.
broader term: statistical analysis
synonym: correlation

residual

definition: a tree ring chronology method that uses Program ARSTAN, developed by Dr. Edward R. Cook at the Tree-Ring Laboratory, Lamont-Doherty Earth Observatory of Columbia University, Palisades, New York (Cook 1985), in its standard configuration but additionally using autoregressive modeling to remove autocorrelation.
broader term: tree ring chronology method

rock eval pyrolysis

definition: pyrolysis that uses a programmed temperature heating in an inert atmosphere (helium) of a small sample (~100 mg) to quantitatively and selectively determine (1) the free hydrocarbons contained in the sample and (2) the hydrocarbon- and oxygen-containing compounds (CO₂) that are volatilized during the cracking of the unextractable organic matter in the sample (kerogen) (Ocean Drilling Program publication).

broader term: pyrolysis

sample spacing method

definition: a sampling method that determines the contiguity of samples from an archive (e.g., a core).

broader term: sampling method

narrower term: bulk sample

narrower term: continuous line

narrower term: discrete spot

sampling method

definition: a method that relates to how individual physical samples are removed from the physical archive (e.g., the core).

broader term: method

narrower term: continuous flow analysis

narrower term: gas extraction method

narrower term: laser ablation

narrower term: sample spacing method

scanning probe microscopy

definition: microscopy which uses a probe to scan the surface of the specimen and measure some form of interaction between surface and probe. An image of the surface is obtained by mechanically moving the probe in a raster scan of the specimen, line by line, and recording the probe-surface interaction as a function of position. A feedback loop is used to maintain a fixed relationship between the probe and surface during scanning (http://purl.obolibrary.org/obo/CHMO_0000112).

broader term: microscopy

secondary ion mass spectrometry

definition: mass spectrometry where the sample is bombarded with a stream of primary mass-selected particles and the secondary ions ejected from the sample are detected (http://purl.obolibrary.org/obo/CHMO_0000560).

broader term: mass spectrometry

synonym: ion microprobe

synonym: SIMS

narrower term: multiple collector secondary ion mass spectrometry

narrower term: single collector secondary ion mass spectrometry

single collector inductively-coupled plasma mass spectrometry

definition: mass spectrometry where the sample is ionised in a plasma (a partially ionised gas---such as Ar---containing free electrons) which has been generated by electromagnetic induction. A single collector is used.

broader term: inductively-coupled plasma mass spectrometry

synonym: quadrupole ICP-MS

synonym: SC-ICP-MS

single collector secondary ion mass spectrometry

definition: secondary ion mass spectrometry in which one collectors is used to detect one ion beam.

broader term: secondary ion mass spectrometry

spectrophotometry

definition: a type of electronic spectroscopy where the sample absorbs radiation in the range ultraviolet to near-infrared (0.1--2.5 micrometers) resulting in electronic transitions within the sample (http://purl.obolibrary.org/obo/CHMO_0000291).

broader term: electronic spectroscopy

spectroscopy

definition: the study of the interaction of a sample with radiation or particles for measurement or detection (http://purl.obolibrary.org/obo/CHMO_0000228).

broader term: laboratory method

narrower term: beta-particle detection

narrower term: electronic spectroscopy

narrower term: laser spectroscopy

narrower term: luminescence spectroscopy

narrower term: mass spectrometry

narrower term: vibrational spectroscopy

narrower term: x-ray spectroscopy

standard

definition: a tree ring chronology method that uses Program ARSTAN, developed by Dr. Edward R. Cook at the Tree-Ring Laboratory, Lamont-Doherty Earth Observatory of Columbia University, Palisades, New York (Cook 1985), in its standard configuration with no autoregressive modeling.

broader term: tree ring chronology method

statistical analysis

definition: a computational method that collects, analyzes, presents and/or interprets numerical data generally within a probabilistic framework.

broader term: computational method

synonym: geostatistics

narrower term: analogue method

narrower term: artificial neural network

narrower term: Bayesian hierarchical modeling

narrower term: Bayesian inference

narrower term: compositing method

narrower term: Monte Carlo simulation

narrower term: principal component analysis

narrower term: regression analysis

sublimation

definition: a gas extraction method that liberates gas through the evaporation and recondensation of ice.

broader term: gas extraction method

thermal ionization mass spectrometry

definition: mass spectrometry where ionisation is achieved by loading the sample onto a heated filament (http://purl.obolibrary.org/obo/CHMO_0000532).

broader term: mass spectrometry

synonym: TIMS

tree ring chronology method

definition: computational methods that are employed in the generation of a tree ring chronology (i.e., a tree ring standardized growth index).

broader term: computational method
narrower term: ARSTAN
narrower term: low-pass filter
narrower term: re-whitened residual
narrower term: residual
narrower term: standard

tunable diode laser absorption spectroscopy

definition: a type of laser spectroscopy where a diode laser is tuned to a specific absorption line of interest in the sample and the intensity of the transmitted radiation is measured (http://purl.obolibrary.org/obo/CHMO_0000442).
broader term: laser spectroscopy

ultraviolet microscopy

definition: microscopy that uses ultraviolet light to generate a magnified image of a sample.
broader term: microscopy

vibrational spectroscopy

definition: spectroscopy which probes the vibrational degrees of freedom of a molecule (http://purl.obolibrary.org/obo/CHMO_0000628).
broader term: spectroscopy
narrower term: fourier transform infrared spectroscopy

wavelength-dispersive x-ray fluorescence spectroscopy

definition: x-ray emission spectroscopy where the energy spectrum of the X-rays emitted due to core-to-core transitions is measured using a diffraction grating or crystal (http://purl.obolibrary.org/obo/CHMO_0000314).
broader term: x-ray fluorescence spectroscopy
synonym: WD-XRF

wet extraction

definition: a gas extraction method in which gas is liberated through melting of the ice.
broader term: gas extraction method

x-radiography

definition: an image technique using x-rays to view the internal structure of a material.
broader term: image analysis

x-ray densitometry

definition: densitometry using applied x radiation.
broader term: densitometry

x-ray diffraction

definition: a method for determining structure by directing a beam of X-rays at the sample and detecting the positions and intensities of the diffracted X-rays as a pattern of spots on a photographic plate (http://purl.obolibrary.org/obo/CHMO_0000156).
broader term: diffraction and scattering methods

x-ray fluorescence spectroscopy

definition: x-ray spectroscopy where the sample is bombarded with X-rays or particles and the energies and intensities of the X-rays emitted due to core-to-core transitions (known as 'X-ray fluorescence') are detected (http://purl.obolibrary.org/obo/CHMO_0000307).

broader term: x-ray spectroscopy

synonym: XRF

narrower term: energy-dispersive x-ray fluorescence spectroscopy

narrower term: wavelength-dispersive x-ray fluorescence spectroscopy

x-ray microscopy

definition: an imaging technique where soft X-rays (100--1000 eV) are directed at the specimen, and the difference in absorption of the X-rays by different elements (mainly O and C) produces an image (http://purl.obolibrary.org/obo/CHMO_0002312).

broader term: microscopy

x-ray particle size analysis

definition: particle size analysis using an x-ray.

broader term: particle size analysis

x-ray spectroscopy

definition: spectroscopy where the absorption or emission of X-rays is detected (http://purl.obolibrary.org/obo/CHMO_0000297).

broader term: spectroscopy

narrower term: electron probe x-ray microanalysis

narrower term: x-ray fluorescence spectroscopy