

Parameter Naming Conventions

Standard hydrographic parameters in the GEOTRACES IDP2017, such as temperature, salinity and oxygen use names as defined in the WOCE/CLIVAR naming convention (CTDTMP, CTDSAL and CTDOXY for temperature, salinity and oxygen from CTD sensors). Other hydrographic parameters use names defined intuitively. Examples are PRESSURE for the CTD pressure at the bottle sample depth, SALINTY, PHOSPHATE, NITRATE, and SILICATE for salinity, phosphate, nitrate and silicate measured on bottle samples. Biogeochemistry parameters in the GEOTRACES IDP 2017 use names defined in SCOR naming convention (eg. HPLC pigments; SCOR WG78) or names that intuitively define the parameters (eg. nifH_UCYN-A_DNA_P_CONC_BOTTLE; abundance nifH Uncultured unicellular cyanobacteria (UCYN-A)).

All other trace elements and isotope names are composed of up to six separate tokens as shown below:

1	2	3	4	5	6
Element/ Compound	[_Oxidation State]	[_Atomic Mass]	_Phase	_DataType	_Sampling System

Explanations

#	Explanation	Example
1	Element or compound (mandatory)	Fe, Th, DIC, NO3, L1Fe
2	Oxidation state as roman number (optional)	_II, _IV, _III_V_ where III and V are combined
3	Atomic mass (optional); two entries for isotope ratios	_228, _208_204
4	Phase on which element or compound was measured (mandatory); may include two components (e.g., _R_TD_ refers to the Total Dissolvable concentration of a constituent in Rain; _MM_D_ refers to the dissolved concentration of the monomethyl form of a constituent)	_A (Aerosol) _C (colloidal) _D (dissolved) _DL (dissolved labile) _F (free (un-complexed)) _LP (large particulate) _LPT (large particulate, total (unleached)) _R (Rain) _S (soluble) _SML (soluble mild leach) _SSL (soluble strong leach) _SP (small particulate) _SPL (small particulate, labile fraction) _SPR (small particulate, refractory fraction) _SPT (small particulate, total (unleached)) _T (total) _TD (total dissolvable) _TP (total particulate) _TPL (total particulate, labile fraction) _TPR (total particulate, refractory fraction)
5	DataType (mandatory)	_CONC _DELTA _EPSILON _LogK _RATIO

6	Sampling system (mandatory)	_BOTTLE _FISH _PUMP _UWAY _HIVOL _LOWVOL _FINE_IMPACTOR _COARSE_IMPACTOR _AUTO _MAN
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Examples

Fe_D_CONC_BOTTLE	Concentration of dissolved Fe
Fe_II_D_CONC_BOTTLE	Concentration of dissolved Fe(II)
Fe_II_TP_CONC_BOTTLE	Concentration of total particulate Fe(II) determined by filtration from a water sampling bottle
Fe_TPL_CONC_BOTTLE	Concentration of labile particulate iron determined by filtration from a water sampling bottle
Nd_143_144_D_RATIO_BOTTLE	Atom ratio of given isotopes for dissolved Nd
Nd_143_144_D_EPSILON_BOTTLE	Atom ratio of dissolved Nd isotopes expressed in conventional EPSILON notation
Cd_114_110_D_DELTA_BOTTLE	Atom ratio of dissolved Cd isotopes expressed in conventional DELTA notation
Cu_Cu'_D_CONC_BOTTLE	Concentration of dissolved inorganic Cu
Pb_206_204_D_RATIO_BOTTLE	Atom ratio of given isotopes for dissolved Pb
DIC_13_12_D_DELTA_BOTTLE	$\delta^{13}\text{C}$ of DIC
DIC_14_12_D_DELTA_BOTTLE	$\Delta^{14}\text{C}$ of DIC
NITRATE_15_14_D_DELTA_BOTTLE	$\delta^{15}\text{N}$ of nitrate
L1_Fe_D_CONC_BOTTLE	Concentration of dissolved L1 Fe-binding ligand
L1_Fe_D_LogK_BOTTLE	Log of the stability constant of L1 Fe
HOMOCYS_D_CONC_BOTTLE	Concentration of dissolved homocysteine
Chl a_HPLC_P_CONC_BOTTLE	Concentration of particulate Chlorophyll a measured using HPLC method
nifH_UCYN-A_DNA_P_CONC_BOTTLE	Abundance nifH Uncultured unicellular cyanobacteria (UCYN-A)