

SeaBASS Standard Field Names and Units

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<http://seabass.gsfc.nasa.gov/cgi-bin/stdfields.cgi>

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ABBREVIATION	UNITS	DESCRIPTION
a	1/m	Total absorption coefficient (aw + ap + ag)
a*ph	m^2/mg	Chlorophyll a specific absorption coefficient
aaer	1/m	Absorption coefficient of atmospheric aerosols
ad	1/m	Absorption coefficient of non-algal detritus
adg	1/m	Absorption coefficient of non-algal detritus + Gelbstoff (ad + ag)
ag	1/m	Absorption coefficient of Gelbstoff
apg	1/m	Absorption coefficient of Gelbstoff + particles (ag + ap)
Allo	mg/m^3	HPLC Alloxanthin
alpha-beta-Car	mg/m^3	HPLC Alpha (Beta,epsilon) + Beta (Beta,beta) Carotenes
altitude	m	Altitude above sea level
am	unitless	Airmass
angstrom	unitless	Angstrom exponent
Anth	mg/m^3	HPLC Antheraxanthin
AOT	unitless	Aerosol optical thickness
ap	1/m	Absorption coefficient of particles (ad + aph)
aph	1/m	Absorption coefficient of phytoplankton
Asta	mg/m^3	HPLC Astaxanthin
At	degreesC	Air temperature
aw	1/m	Absorption coefficient of water
b	1/m	Total scattering coefficient (bw + bp)
bb	1/m	Total backscattering coefficient (bbw + bbp)
bbp	1/m	Backscattering coefficient of particles
bbw	1/m	Backscattering coefficient of water
beta-beta-Car	mg/m^3	HPLC Beta-Carotene (Beta,beta-Carotene)
beta-epi-Car	mg/m^3	HPLC Alpha-Carotene (Beta,epsilon-Carotene)
beta-psi-Car	mg/m^3	HPLC Gamma-Carotene (Beta,psi-Carotene)
bin_depth	m	Nominal or center depth for each data bin
bincount	none	Number of records averaged into a bin

bp	1/m	Scattering coefficient of particles
BSi	mmol/m^3	Biogenic silica
But-fuco	mg/m^3	HPLC 19'-Butanoyloxyfucoxanthin
bw	1/m	Scattering coefficient of water
c	1/m	Beam attenuation coefficient
Cantha	mg/m^3	HPLC Canthaxanthin
cdmf	uW/cm^2/nm/sr	CDOM fluorescence (please use the form cdmf_ex##_em##; ex = excitation wavelength; em = emission wavelength)
CHL	mg/m^3	Fluorometrically/spectrophotometrically-derived chlorophyll a
Chl_a	mg/m^3	HPLC Chlorophyll a
Chl_a_allom	mg/m^3	HPLC Chlorophyll a allomers
Chl_a_prime	mg/m^3	HPLC Chlorophyll a epimer
Chl_b	mg/m^3	HPLC Chlorophyll b
Chl_c	mg/m^3	HPLC Chlorophyll c
Chl_c1	mg/m^3	HPLC Chlorophyll c1
Chl_c1c2	mg/m^3	HPLC Chlorophyll c1,c2
Chl_c2	mg/m^3	HPLC Chlorophyll c2
Chl_c3	mg/m^3	HPLC Chlorophyll c3
Chlide_a	mg/m^3	HPLC Chlorophyllide a
Chlide_b	mg/m^3	HPLC Chlorophyllide b
cloud	%	Percent cloud cover
cnw	1/m	Beam attenuation coefficient w/ water subtracted (c - cw)
cond	mmho/cm	Conductivity
cp	1/m	Beam attenuation coefficient of particles (ap + cp)
Croco	mg/m^3	HPLC Crocoxanthin
cw	1/m	Beam attenuation coefficient of water (aw + bw)
date	yyyymmdd	Sample date
day	dd	Sample day
depth	m	Depth of measurement
Diadchr	mg/m^3	HPLC Diadinochrome
Diadino	mg/m^3	HPLC Diadinoxanthin
Diato	mg/m^3	HPLC Diatoxanthin
DIC	umol/kg	Dissolved inorganic carbon
Dino	mg/m^3	HPLC Dinoxanthin
DOC	umol/kg	Dissolved organic carbon

DV_Chl_a	mg/m^3	HPLC Divinyl Chorophyll a
DV_Chl_b	mg/m^3	HPLC Divinyl Chorophyll b
Echin	mg/m^3	HPLC Echinone
Ed	uW/cm^2/nm	Downwelling irradiance
EdGND	volts	Dark current values for Ed sensor
Elw	uW/cm^2	Downwelling irradiance over the infrared spectrum, 3 to 40 um
Epar	uE/cm^2/s	Profiled PAR
epi-epi-Car	mg/m^3	HPLC Epsilon-Carotene (Epsilon,epsilon-Carotene)
Es	uW/cm^2/nm	Downwelling surface irradiance
EsGND	volts	Dark current values for Es sensor
Esky	uW/cm^2/nm	Downwelling sky irradiance
Esun	uW/cm^2/nm	Downwelling sun irradiance (direct normal solar irradiance)
Esw	uW/cm^2	Downwelling irradiance over the solar spectrum, 0.3 to 3 um
Et-8-carot	mg/m^3	HPLC Ethyl-apo-8'-carotene
Et-chlide_a	mg/m^3	HPLC Ethyl Chlorophyllide a
Et-chlide_b	mg/m^3	HPLC Ethyl Chlorophyllide b
Eu	uW/cm^2/nm	Upwelling irradiance
EuGND	volts	Dark current values for Eu sensor
F0	uW/cm^2/nm	Extraterrestrial solar irradiance
Fuco	mg/m^3	HPLC Fucoxanthin
Gyro	mg/m^3	HPLC Gyroxanthin-Diester
Hex-fuco	mg/m^3	HPLC 19'-Hexanoyloxyfucoxanthin
hour	hh	Sample hour
It	degreesC	Instrument temperature
Kd	1/m	Diffuse attenuation coefficient of Ed
KI	1/m	Diffuse attenuation coefficient of Lu
Knf	1/m	Diffuse attenuation coefficient of natf
Kpar	1/m	Diffuse attenuation coefficient of PAR
Ku	1/m	Diffuse attenuation coefficient of Eu
lat	degrees	Sample latitude
lon	degrees	Sample longitude
LSi	mmol/m^3	Lithogenic silica
Lsky	uW/cm^2/nm/sr	Sky radiance
Lt	uW/cm^2/nm/sr	Total water radiance

Lu	uW/cm^2/nm/sr	Upwelling radiance
LuGND	volts	Dark current values for Lu sensor
Lut	mg/m^3	HPLC Lutein
Lw	uW/cm^2/nm/sr	Water leaving radiance
Lwn	uW/cm^2/nm/sr	Normalized water leaving radiance (Lwn = Lw * F0 / Es)
Lwnex	uW/cm^2/nm/sr	Exact normalized water leaving radiance
Lyco	mg/m^3	HPLC Lycopene
Me-chlide_a	mg/m^3	HPLC Methyl Chlorophyllide a
Me-chlide_b	mg/m^3	HPLC Methyl Chlorophyllide b
Mg_DVP	mg/m^3	HPLC Mg 2,4 divinyl pheoporphyrin a5 monomethyl ester
minute	mn	Sample minute
Monado	mg/m^3	HPLC Monadoxanthin
month	mo	Sample month
MV_Chl_a	mg/m^3	HPLC Monovinyl Chorophyll a
MV_Chl_b	mg/m^3	HPLC Monovinyl Chorophyll b
natf	nE/m^2/sr/s	natural fluorescence of chlorophyll a
Neo	mg/m^3	HPLC Neoxanthin
NO2	mmol/m^3	Nitrite
NO3	mmol/m^3	Nitrate
nrb	photoelectrons/usec/shot	Normalized relative backscatter
oxygen	ml/L	Dissolved oxygen
Oz	dobson	Column Ozone
P-457	mg/m^3	HPLC P-457
PAR	uE/cm^2/s	PAR measured at the sea surface
pCO2	uatm	Surface water partial pressure of carbon dioxide
Perid	mg/m^3	HPLC Peridinin
PHAE0	mg/m^3	Total phaeopigment concentration
Phide_a	mg/m^3	HPLC Pheophorbide a
Phide_b	mg/m^3	HPLC Pheophorbide b
Phide_c	mg/m^3	HPLC Pheophorbide c
Phytin_a	mg/m^3	HPLC Pheophytin a
Phytin_b	mg/m^3	HPLC Pheophytin b
Phytin_c	mg/m^3	HPLC Pheophytin c
Phytyl-chl_c	mg/m^3	HPLC Phytylated Chlorophyll c
PIC	mg/m^3	Particulate inorganic carbon
pitch	degrees	Instrument pitch

PO4	mmol/m^3	Phosphate
POC	mg/m^3	Particulate organic carbon
PON	mg/m^3	Particulate organic nitrogen
PP	mgC/mgchl/a/hr	Primary productivity
Pras	mg/m^3	HPLC Prasinoxanthin
pressure	dbar	Water pressure
pressure_atm	mbar	Atmospheric pressure
Pyrophytin_a	mg/m^3	HPLC Pyropheophytin a
Pyrophytin_b	mg/m^3	HPLC Pyropheophytin b
Pyrophytin_c	mg/m^3	HPLC Pyropheophytin c
Q	sr	Eu / Lu (equal to pi in diffuse water)
quality	none	Analyst-specific data quality flag
R	unitless	Irradiance reflectance (Eu / Ed)
RelAz	degrees	Sensor azimuth angle relative to the solar plane
Rf	uW/cm^2/nm/sr	Raman fluorescence (please use the form Rf_ex##_em##; ex = excitation wavelength; em = emission wavelength)
RI	1/sr	Radiance reflectance (Lu / Ed)
roll	degrees	Instrument roll
Rpi	unitless	Radiance reflectance with pi (pi * Lu / Ed)
Rrs	1/sr	Remote sensing reflectance (Lw / Ed)
S_ad		Slope of non-algal detritus absorption spectra
S_ag		Slope of gelbstoff absorption spectra
sal	PSU	Salinity
sample	none	Sample number
SAZ	degrees	Solar azimuth angle
sdy	ddd	Sequential day of year
second	ss	Sample second
SenZ	degrees	Sensor zenith angle
sigma_theta	kg/m^3	Potential density - 1000 kg/m3
sigmaT	kg/m^3	Density - 1000 kg/m3
SiO4	mmol/m^3	Silicate
Siphn	mg/m^3	HPLC Siphonein
Siphx	mg/m^3	HPLC Siphonaxanthin
SN	none	Instrument serial number
SPM	g/L	Total suspended particulate material

SST	degreesC	Sea surface temperature
station	none	Sample station
stimf	volts	Stimulated fluorescence of chlorophyll a
SZ	m	Secchi disk depth
SZA	degrees	Solar zenith angle
tilt	degrees	Instrument tilt
time	hh:mm:ss	Sample time
Tot_Chl_a	mg/m^3	HPLC DV_Chl_a + MV_Chla + Chlide_a + Chl_a_allom + Chl_a_prime
Tpg	mg/m^3	Total pigment concentration
trans	%	Percent transmission
Vauch	mg/m^3	HPLC Vaucheriaxanthin-ester
Viola	mg/m^3	HPLC Violaxanthin
volfilt	L	Volume filtered
VSF	1/m/sr	Volume scattering function (VSF### or VSF###_YYY, where YYY is collection angle)
VSF_angle	degrees	VSF collection angle
waveht	m	Wave height
wavelength	nm	Wavelength of measurement
wind	m/s	Wind speed
Wt	degreesC	Water temperature
Wvp	cm	Water vapor
year	yyyy	Sample year
Z_90	m	Depth of the first optical layer (37% light level)
Z_DCM	m	Depth of the deep chlorophyll maximum
Z_Eu	m	Depth of the euphotic layer
Z_MLD	m	Depth of the mixed layer
Zea	mg/m^3	HPLC Zeaxanthin