

David J Kieber

List of Publications by Year in descending order

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65
papers

6,144
citations

159585

30
h-index

106344

65
g-index

66
all docs

66
docs citations

66
times ranked

5514
citing authors

#	ARTICLE	IF	CITATIONS
1	Absorption spectral slopes and slope ratios as indicators of molecular weight, source, and photobleaching of chromophoric dissolved organic matter. <i>Limnology and Oceanography</i> , 2008, 53, 955-969.	3.1	2,071
2	Photochemical degradation of dissolved organic carbon and its impact on the oceanic carbon cycle. <i>Nature</i> , 1991, 353, 60-62.	27.8	595
3	Photochemical source of biological substrates in sea water: implications for carbon cycling. <i>Nature</i> , 1989, 341, 637-639.	27.8	427
4	Oxidation of humic substances by manganese oxides yields low-molecular-weight organic substrates. <i>Nature</i> , 1994, 367, 62-64.	27.8	299
5	Chemical and physical characteristics of nascent aerosols produced by bursting bubbles at a model air-sea interface. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	259
6	Impact of dimethylsulfide photochemistry on methyl sulfur cycling in the equatorial Pacific Ocean. <i>Journal of Geophysical Research</i> , 1996, 101, 3715-3722.	3.3	226
7	Effect of Humic Substance Photodegradation on Bacterial Growth and Respiration in Lake Water. <i>Applied and Environmental Microbiology</i> , 2005, 71, 6267-6275.	3.1	130
8	Nitrate and Nitrite Ultraviolet Actinometers. <i>Photochemistry and Photobiology</i> , 1999, 70, 319-328.	2.5	113
9	Marine Photochemistry of Organic Matter. , 2015, , 389-450.		111
10	Photolysis and the dimethylsulfide (DMS) summer paradox in the Sargasso Sea. <i>Limnology and Oceanography</i> , 2003, 48, 1088-1100.	3.1	109
11	Determination of carbon-centered radicals in aqueous solution by liquid chromatography with fluorescence detection. <i>Analytical Chemistry</i> , 1990, 62, 2275-2283.	6.5	101
12	The metabolite dimethylsulfoxonium propionate extends the marine organosulfur cycle. <i>Nature</i> , 2018, 563, 412-415.	27.8	93
13	Photochemical production of hydrogen peroxide in Antarctic Waters. <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , 2000, 47, 1077-1099.	1.4	83
14	Photochemical production of the hydroxyl radical in Antarctic waters. <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , 2001, 48, 741-759.	1.4	80
15	Carbon dioxide and carbon monoxide photoproduction quantum yields in the Delaware Estuary. <i>Marine Chemistry</i> , 2010, 118, 11-21.	2.3	78
16	Photochemical formation of glyoxylic and pyruvic acids in seawater. <i>Marine Chemistry</i> , 1987, 21, 135-149.	2.3	77
17	Reduction of dimethylsulfoxide to dimethylsulfide by marine phytoplankton. <i>Limnology and Oceanography</i> , 2009, 54, 560-570.	3.1	71
18	Distribution and cycling of dimethylsulfide, dimethylsulfoniopropionate, and dimethylsulfoxide during spring and early summer in the Southern Ocean south of New Zealand. <i>Aquatic Sciences</i> , 2007, 69, 305-319.	1.5	62

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19	Fluorescence Detection of Carbon-Centered Radicals in Aqueous Solution. <i>Free Radical Research Communications</i> , 1990, 10, 109-117.	1.8	55
20	Depth-dependent fate of biologically-consumed dimethylsulfide in the Sargasso Sea. <i>Marine Chemistry</i> , 2007, 103, 197-208.	2.3	55
21	Distribution and biological turnover of dissolved organic compounds in the water column of the Black Sea. <i>Deep-sea Research Part A, Oceanographic Research Papers</i> , 1991, 38, S1021-S1047.	1.5	52
22	Effects of solar radiation on the fate of dissolved DMSP and conversion to DMS in seawater. <i>Aquatic Sciences</i> , 2007, 69, 377-393.	1.5	51
23	Dissolved DMSO production via biological and photochemical oxidation of dissolved DMS in the Ross Sea, Antarctica. <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , 2009, 56, 166-177.	1.4	48
24	Hydrogen peroxide method intercomparison study in seawater. <i>Marine Chemistry</i> , 2005, 97, 4-13.	2.3	47
25	Photochemical production of hydroxyl radical and hydroperoxides in water extracts of nascent marine aerosols produced by bursting bubbles from Sargasso seawater. <i>Geophysical Research Letters</i> , 2008, 35, .	4.0	45
26	Biological consumption of dimethylsulfide (DMS) and its importance in DMS dynamics in the Ross Sea, Antarctica. <i>Limnology and Oceanography</i> , 2009, 54, 785-798.	3.1	42
27	Development and Intercalibration of Ultraviolet Solar Actinometers. <i>Photochemistry and Photobiology</i> , 2000, 71, 431.	2.5	41
28	Wavelength and temperature-dependent apparent quantum yields for photochemical formation of hydrogen peroxide in seawater. <i>Environmental Sciences: Processes and Impacts</i> , 2014, 16, 777-791.	3.5	40
29	Coupled ocean-atmosphere loss of marine refractory dissolved organic carbon. <i>Geophysical Research Letters</i> , 2016, 43, 2765-2772.	4.0	35
30	Light-stimulated production of dissolved DMSO by a particle-associated process in the Ross Sea, Antarctica. <i>Limnology and Oceanography</i> , 2007, 52, 2456-2466.	3.1	32
31	Reversed-phase high-performance liquid chromatographic analysis of α -keto acid quinoxalinol derivatives. <i>Journal of Chromatography A</i> , 1983, 281, 135-149.	3.7	31
32	Occurrence and turnover of DMSP and DMS in deep waters of the Ross Sea, Antarctica. <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , 2009, 56, 686-702.	1.4	30
33	Effect of acidification on preservation of DMSP in seawater and phytoplankton cultures: Evidence for rapid loss and cleavage of DMSP in samples containing <i>Phaeocystis</i> sp.. <i>Marine Chemistry</i> , 2011, 124, 57-67.	2.3	28
34	Properties of Seawater Surfactants Associated with Primary Marine Aerosol Particles Produced by Bursting Bubbles at a Model Air-Sea Interface. <i>Environmental Science & Technology</i> , 2019, 53, 9407-9417.	10.0	28
35	Oceanic efflux of ancient marine dissolved organic carbon in primary marine aerosol. <i>Science Advances</i> , 2019, 5, eaax6535.	10.3	27
36	Dimethylsulfide photolysis rates and apparent quantum yields in Bering Sea seawater. <i>Continental Shelf Research</i> , 2005, 25, 1825-1835.	1.8	26

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37	Effects of iron limitation and UV radiation on <i>Phaeocystis antarctica</i> growth and dimethylsulfoniopropionate, dimethylsulfoxide and acrylate concentrations. <i>Environmental Chemistry</i> , 2016, 13, 195.	1.5	25
38	Chemical light meters for photochemical and photobiological studies. <i>Aquatic Sciences</i> , 2007, 69, 360-376.	1.5	22
39	CDOM Sources and Photobleaching Control Quantum Yields for Oceanic DMS Photolysis. <i>Environmental Science & Technology</i> , 2016, 50, 13361-13370.	10.0	22
40	Factors That Modulate Properties of Primary Marine Aerosol Generated From Ambient Seawater on Ships at Sea. <i>Journal of Geophysical Research D: Atmospheres</i> , 2017, 122, 11,961.	3.3	22
41	Free-floating drifter for photochemical studies in the water column. <i>Limnology and Oceanography</i> , 1997, 42, 1829-1833.	3.1	20
42	Wavelength- and Temperature-Dependent Apparent Quantum Yields for Photochemical Production of Carbonyl Compounds in the North Pacific Ocean. <i>Environmental Science & Technology</i> , 2018, 52, 1929-1939.	10.0	19
43	Concentrations, biological uptake, and respiration of dissolved acrylate and dimethylsulfoxide in the northern Gulf of Mexico. <i>Limnology and Oceanography</i> , 2017, 62, 1198-1218.	3.1	18
44	Determination of formate in natural waters by a coupled enzymatic/high-performance liquid chromatographic technique. <i>Analytical Chemistry</i> , 1988, 60, 1654-1659.	6.5	17
45	Diagnostic modeling of dimethylsulfide production in coastal water west of the Antarctic Peninsula. <i>Continental Shelf Research</i> , 2012, 32, 96-109.	1.8	17
46	Microwave preservation method for DMSP, DMSO, and acrylate in unfiltered seawater and phytoplankton culture samples. <i>Limnology and Oceanography: Methods</i> , 2016, 14, 196-209.	2.0	17
47	Trace determination of α -keto acid in natural waters. <i>Analytica Chimica Acta</i> , 1986, 183, 129-140.	5.4	16
48	Determination of photochemically produced carbon dioxide in seawater. <i>Limnology and Oceanography: Methods</i> , 2008, 6, 441-453.	2.0	16
49	Carbon Monoxide Photoproduction from Particles and Solutes in the Delaware Estuary under Contrasting Hydrological Conditions. <i>Environmental Science & Technology</i> , 2015, 49, 14048-14056.	10.0	16
50	Mass Spectrometric Identification of the Radical Adducts of a Fluorescamine-Derivatized Nitroxide. <i>Free Radical Research Communications</i> , 1992, 16, 35-39.	1.8	15
51	Influence of the Mississippi River plume and non-bioavailable DMSP on dissolved DMSP turnover in the northern Gulf of Mexico. <i>Environmental Chemistry</i> , 2016, 13, 280.	1.5	14
52	Evidence for the mutual effects of dimethylsulfoniopropionate and nitric oxide during the growth of marine microalgae. <i>Nitric Oxide - Biology and Chemistry</i> , 2014, 42, 54-61.	2.7	13
53	Dimethylsulfide membrane permeability, cellular concentrations and implications for physiological functions in marine algae. <i>Journal of Plankton Research</i> , 2016, 38, 41-54.	1.8	13
54	DMS emissions from the Arctic marginal ice zone. <i>Elementa</i> , 2021, 9, .	3.2	12

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55	Development and Intercalibration of Ultraviolet Solar Actinometers. <i>Photochemistry and Photobiology</i> , 2007, 71, 431-440.	2.5	11
56	Kinetics of DMSP lyases in whole cell extracts of four <i>Phaeocystis</i> species: Response to temperature and DMSP analogs. <i>Journal of Sea Research</i> , 2014, 86, 110-115.	1.6	11
57	Carbonate Disequilibrium in the External Boundary Layer of Freshwater Chrysophytes: Implications for Contaminant Uptake. <i>Environmental Science & Technology</i> , 2018, 52, 9403-9411.	10.0	11
58	Concentrations and Photochemistry of Acetaldehyde, Glyoxal, and Methylglyoxal in the Northwest Atlantic Ocean. <i>Environmental Science & Technology</i> , 2019, 53, 9512-9521.	10.0	11
59	Marine Aerosol Production via Detrainment of Bubble Plumes Generated in Natural Seawater With a Forced Air Venturi. <i>Journal of Geophysical Research D: Atmospheres</i> , 2019, 124, 10931-10950.	3.3	9
60	Modification of responses of newly hatched snails by exposure to odors during development. <i>Chemical Senses</i> , 1984, 9, 181-192.	2.0	8
61	Modelling dimethylsulfide diffusion in the algal external boundary layer: implications for mutualistic and signalling roles. <i>Environmental Microbiology</i> , 2018, 20, 4157-4169.	3.8	8
62	Global Model for Depth-Dependent Carbonyl Photochemical Production Rates in Seawater. <i>Global Biogeochemical Cycles</i> , 2020, 34, e2019GB006431.	4.9	8
63	Distribution and photo-reactivity of chromophoric and fluorescent dissolved organic matter in the Northeastern North Pacific Ocean. <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , 2020, 155, 103168.	1.4	6
64	Photochemical Production and Photolysis of Acrylate in Seawater. <i>Environmental Science & Technology</i> , 2021, 55, 7135-7144.	10.0	4
65	Inhibition of oyster drill chemotaxis. <i>Chemical Senses</i> , 1985, 10, 507-516.	2.0	2