

Ca Stedmon

List of Publications by Year in descending order

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111
papers

19,071
citations

22153

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125
docs citations

125
times ranked

10504
citing authors

#	ARTICLE	IF	CITATIONS
1	Characterizing dissolved organic matter fluorescence with parallel factor analysis: a tutorial. <i>Limnology and Oceanography: Methods</i> , 2008, 6, 572-579.	2.0	1,969
2	Tracing dissolved organic matter in aquatic environments using a new approach to fluorescence spectroscopy. <i>Marine Chemistry</i> , 2003, 82, 239-254.	2.3	1,598
3	Fluorescence spectroscopy and multi-way techniques. PARAFAC. <i>Analytical Methods</i> , 2013, 5, 6557.	2.7	1,349
4	Resolving the variability in dissolved organic matter fluorescence in a temperate estuary and its catchment using PARAFAC analysis. <i>Limnology and Oceanography</i> , 2005, 50, 686-697.	3.1	908
5	Fluorescence Intensity Calibration Using the Raman Scatter Peak of Water. <i>Applied Spectroscopy</i> , 2009, 63, 936-940.	2.2	826
6	OpenFluorâ€“ an online spectral library of auto-fluorescence by organic compounds in the environment. <i>Analytical Methods</i> , 2014, 6, 658-661.	2.7	676
7	Distinguishing between terrestrial and autochthonous organic matter sources in marine environments using fluorescence spectroscopy. <i>Marine Chemistry</i> , 2008, 108, 40-58.	2.3	654
8	Measurement of Dissolved Organic Matter Fluorescence in Aquatic Environments: An Interlaboratory Comparison. <i>Environmental Science & Technology</i> , 2010, 44, 9405-9412.	10.0	562
9	A critical assessment of visual identification of marine microplastic using Raman spectroscopy for analysis improvement. <i>Marine Pollution Bulletin</i> , 2015, 100, 82-91.	5.0	561
10	Abundance, size and polymer composition of marine microplastics $\geq 10 \mu\text{m}$ in the Atlantic Ocean and their modelled vertical distribution. <i>Marine Pollution Bulletin</i> , 2015, 100, 70-81.	5.0	560
11	Tracing the production and degradation of autochthonous fractions of dissolved organic matter by fluorescence analysis. <i>Limnology and Oceanography</i> , 2005, 50, 1415-1426.	3.1	513
12	Handling of Rayleigh and Raman scatter for PARAFAC modeling of fluorescence data using interpolation. <i>Journal of Chemometrics</i> , 2006, 20, 99-105.	1.3	434
13	Experimental insights into the importance of aquatic bacterial community composition to the degradation of dissolved organic matter. <i>ISME Journal</i> , 2016, 10, 533-545.	9.8	418
14	Optical Properties and Signatures of Chromophoric Dissolved Organic Matter (CDOM) in Danish Coastal Waters. <i>Estuarine, Coastal and Shelf Science</i> , 2000, 51, 267-278.	2.1	406
15	Global trends in the fluorescence characteristics and distribution of marine dissolved organic matter. <i>Marine Chemistry</i> , 2011, 126, 139-148.	2.3	315
16	Controls of dissolved organic matter quality: evidence from a large-scale boreal lake survey. <i>Global Change Biology</i> , 2014, 20, 1101-1114.	9.5	287
17	Photochemical production of ammonium and transformation of dissolved organic matter in the Baltic Sea. <i>Marine Chemistry</i> , 2007, 104, 227-240.	2.3	268
18	Inner filter correction of dissolved organic matter fluorescence. <i>Limnology and Oceanography: Methods</i> , 2013, 11, 616-630.	2.0	244

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19	The supply and characteristics of colored dissolved organic matter (CDOM) in the Arctic Ocean: Pan Arctic trends and differences. <i>Marine Chemistry</i> , 2011, 124, 108-118.	2.3	240
20	Characteristics of Dissolved Organic Matter in Baltic Coastal Sea Ice: Allochthonous or Autochthonous Origins?. <i>Environmental Science & Technology</i> , 2007, 41, 7273-7279.	10.0	233
21	Turnover time of fluorescent dissolved organic matter in the dark global ocean. <i>Nature Communications</i> , 2015, 6, 5986.	12.8	209
22	Dissolved organic matter sources in large Arctic rivers. <i>Geochimica Et Cosmochimica Acta</i> , 2012, 94, 217-237.	3.9	207
23	Characterizing dissolved organic matter fluorescence with parallel factor analysis: a tutorial. <i>Limnology and Oceanography: Methods</i> , 2008, 6, 572-579.	2.0	189
24	The optics of chromophoric dissolved organic matter (CDOM) in the Greenland Sea: An algorithm for differentiation between marine and terrestrially derived organic matter. <i>Limnology and Oceanography</i> , 2001, 46, 2087-2093.	3.1	184
25	Extraction of microplastic from biota: recommended acidic digestion destroys common plastic polymers. <i>ICES Journal of Marine Science</i> , 2017, 74, 326-331.	2.5	174
26	Global distribution of dissolved organic matter along the aquatic continuum: Across rivers, lakes and oceans. <i>Science of the Total Environment</i> , 2017, 609, 180-191.	8.0	166
27	Behaviour of the optical properties of coloured dissolved organic matter under conservative mixing. <i>Estuarine, Coastal and Shelf Science</i> , 2003, 57, 973-979.	2.1	159
28	A potential approach for monitoring drinking water quality from groundwater systems using organic matter fluorescence as an early warning for contamination events. <i>Water Research</i> , 2011, 45, 6030-6038.	11.3	159
29	Linking the chemical and optical properties of dissolved organic matter in the Balticâ€“North Sea transition zone to differentiate three allochthonous inputs. <i>Marine Chemistry</i> , 2011, 126, 281-294.	2.3	150
30	The use of PARAFAC modeling to trace terrestrial dissolved organic matter and fingerprint water masses in coastal Canadian Arctic surface waters. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	138
31	Modeling absorption by CDOM in the Baltic Sea from season, salinity and chlorophyll. <i>Marine Chemistry</i> , 2006, 101, 1-11.	2.3	136
32	The conservative and non-conservative behavior of chromophoric dissolved organic matter in Chinese estuarine waters. <i>Marine Chemistry</i> , 2007, 107, 357-366.	2.3	130
33	Variations in highâ€“latitude riverine fluorescent dissolved organic matter: A comparison of large Arctic rivers. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2013, 118, 1689-1702.	3.0	124
34	Bioavailability of riverine dissolved organic matter in three Baltic Sea estuaries and the effect of catchment land use. <i>Biogeosciences</i> , 2013, 10, 6969-6986.	3.3	122
35	The Effect of Increased Loads of Dissolved Organic Matter on Estuarine Microbial Community Composition and Function. <i>Frontiers in Microbiology</i> , 2017, 8, 351.	3.5	119
36	Assessing the dynamics of chromophoric dissolved organic matter in a subtropical estuary using parallel factor analysis. <i>Marine Chemistry</i> , 2011, 124, 125-133.	2.3	116

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37	Fate of terrigenous dissolved organic matter (DOM) in estuaries: Aggregation and bioavailability. <i>Ophelia</i> , 2003, 57, 161-176.	0.3	114
38	Characterising organic matter in recirculating aquaculture systems with fluorescence EEM spectroscopy. <i>Water Research</i> , 2015, 83, 112-120.	11.3	114
39	The One-Sample PARAFAC Approach Reveals Molecular Size Distributions of Fluorescent Components in Dissolved Organic Matter. <i>Environmental Science & Technology</i> , 2017, 51, 11900-11908.	10.0	113
40	Photochemistry Illuminates Ubiquitous Organic Matter Fluorescence Spectra. <i>Environmental Science & Technology</i> , 2018, 52, 11243-11250.	10.0	113
41	Assessment of drinking water quality at the tap using fluorescence spectroscopy. <i>Water Research</i> , 2017, 125, 1-10.	11.3	104
42	Fluorescence Quantum Yields of Natural Organic Matter and Organic Compounds: Implications for the Fluorescence-based Interpretation of Organic Matter Composition. <i>Frontiers in Marine Science</i> , 2015, 2, .	2.5	103
43	The Optical Properties of DOM in the Ocean. , 2015, , 481-508.		103
44	The effect of evapoconcentration on dissolved organic carbon concentration and quality in lakes of SW Greenland. <i>Freshwater Biology</i> , 2007, 52, 280-289.	2.4	99
45	Using fluorescence to characterize dissolved organic matter in Antarctic sea ice brines. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	95
46	Lake metabolism scales with lake morphometry and catchment conditions. <i>Aquatic Sciences</i> , 2012, 74, 155-169.	1.5	94
47	Dissolved organic matter (DOM) export to a temperate estuary: seasonal variations and implications of land use. <i>Estuaries and Coasts</i> , 2006, 29, 388-400.	2.2	91
48	Classification and Quantification of Microplastics (<math><100 \mu\text{m}</math>) Using a Focal Plane Arrayâ€“Fourier Transform Infrared Imaging System and Machine Learning. <i>Analytical Chemistry</i> , 2020, 92, 13724-13733.	6.5	91
49	Characteristics of colored dissolved organic matter (CDOM) in the Arctic outflow in the Fram Strait: Assessing the changes and fate of terrigenous CDOM in the Arctic Ocean. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	87
50	Using fluorescent dissolved organic matter to trace and distinguish the origin of Arctic surface waters. <i>Scientific Reports</i> , 2016, 6, 33978.	3.3	85
51	Tracing the long-term microbial production of recalcitrant fluorescent dissolved organic matter in seawater. <i>Geophysical Research Letters</i> , 2014, 41, 2481-2488.	4.0	83
52	The Transpolar Drift as a Source of Riverine and Shelfâ€“Derived Trace Elements to the Central Arctic Ocean. <i>Journal of Geophysical Research: Oceans</i> , 2020, 125, e2019JC015920.	2.6	80
53	From Fresh to Marine Waters: Characterization and Fate of Dissolved Organic Matter in the Lena River Delta Region, Siberia. <i>Frontiers in Marine Science</i> , 2015, 2, .	2.5	77
54	A Model of Extracellular Enzymes in Free-Living Microbes: Which Strategy Pays Off?. <i>Applied and Environmental Microbiology</i> , 2015, 81, 7385-7393.	3.1	74

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55	Seasonal dynamics and conservative mixing of dissolved organic matter in the temperate eutrophic estuary Horsens Fjord. <i>Estuarine, Coastal and Shelf Science</i> , 2011, 92, 376-388.	2.1	72
56	The influence of glacial melt water on bio-optical properties in two contrasting Greenlandic fjords. <i>Estuarine, Coastal and Shelf Science</i> , 2015, 163, 72-83.	2.1	72
57	The characteristics of dissolved organic matter (DOM) and chromophoric dissolved organic matter (CDOM) in Antarctic sea ice. <i>Deep-Sea Research Part II: Topical Studies in Oceanography</i> , 2011, 58, 1075-1091.	1.4	71
58	Tracing water mass mixing in the Balticâ€“North Sea transition zone using the optical properties of coloured dissolved organic matter. <i>Estuarine, Coastal and Shelf Science</i> , 2010, 87, 156-162.	2.1	69
59	Linking CDOM spectral absorption to dissolved organic carbon concentrations and loadings in boreal estuaries. <i>Estuarine, Coastal and Shelf Science</i> , 2012, 111, 107-117.	2.1	68
60	Oceanographic regime shift during 1997 in Disko Bay, Western Greenland. <i>Limnology and Oceanography</i> , 2012, 57, 634-644.	3.1	64
61	Investigating Fluorescent Organic-Matter Composition as a Key Predictor for Arsenic Mobility in Groundwater Aquifers. <i>Environmental Science & Technology</i> , 2018, 52, 13027-13036.	10.0	64
62	The freshwater composition of the Fram Strait outflow derived from a decade of tracer measurements. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	62
63	Evidence of local and regional freshening of Northeast Greenland coastal waters. <i>Scientific Reports</i> , 2017, 7, 13183.	3.3	57
64	Processing of humic-rich riverine dissolved organic matter by estuarine bacteria: effects of predegradation and inorganic nutrients. <i>Aquatic Sciences</i> , 2014, 76, 451-463.	1.5	56
65	Drivers of fluorescent dissolved organic matter in the global epipelagic ocean. <i>Limnology and Oceanography</i> , 2016, 61, 1101-1119.	3.1	53
66	Emerging patterns in the global distribution of dissolved organic matter fluorescence. <i>Analytical Methods</i> , 2019, 11, 888-893.	2.7	52
67	Changes in fulvic acid redox state through the oxycline of a permanently ice-covered Antarctic lake. <i>Aquatic Sciences</i> , 2004, 66, 27-46.	1.5	51
68	Contrasting optical properties of surface waters across the Fram Strait and its potential biological implications. <i>Journal of Marine Systems</i> , 2015, 143, 62-72.	2.1	51
69	Monitoring organic loading to swimming pools by fluorescence excitationâ€“emission matrix with parallel factor analysis (PARAFAC). <i>Water Research</i> , 2011, 45, 2306-2314.	11.3	50
70	Chemometric Analysis of Organic Matter Fluorescence. , 2014, , 339-375.		49
71	Carbon Bioavailability in a High Arctic Fjord Influenced by Glacial Meltwater, NE Greenland. <i>Frontiers in Marine Science</i> , 2017, 4, .	2.5	49
72	Quantifying the impact of solid-phase extraction on chromophoric dissolved organic matter composition. <i>Marine Chemistry</i> , 2018, 207, 33-41.	2.3	48

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73	Bioavailability and radiocarbon age of fluvial dissolved organic matter (DOM) from a northern peatland-dominated catchment: effect of land-use change. <i>Aquatic Sciences</i> , 2014, 76, 393-404.	1.5	46
74	The Molecular Fingerprint of Fluorescent Natural Organic Matter Offers Insight into Biogeochemical Sources and Diagenetic State. <i>Analytical Chemistry</i> , 2018, 90, 14188-14197.	6.5	45
75	Identifying Drivers of Seasonality in Lena River Biogeochemistry and Dissolved Organic Matter Fluxes. <i>Frontiers in Environmental Science</i> , 2020, 8, .	3.3	44
76	Shifts in the Source and Composition of Dissolved Organic Matter in Southwest Greenland Lakes Along a Regional Hydroclimatic Gradient. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2017, 122, 3431-3445.	3.0	43
77	Selective incorporation of dissolved organic matter (DOM) during sea ice formation. <i>Marine Chemistry</i> , 2013, 155, 148-157.	2.3	41
78	Effect of sea ice melt on inherent optical properties and vertical distribution of solar radiant heating in Arctic surface waters. <i>Journal of Geophysical Research: Oceans</i> , 2015, 120, 7028-7039.	2.6	39
79	Unraveling the size-dependent optical properties of dissolved organic matter. <i>Limnology and Oceanography</i> , 2018, 63, 588-601.	3.1	36
80	An approach to estimate the freshwater contribution from glacial melt and precipitation in Greenland shelf waters using colored dissolved organic matter (CDOM). <i>Journal of Geophysical Research: Oceans</i> , 2015, 120, 1107-1117.	2.6	34
81	Phytoplankton growth and microzooplankton grazing along a sub-Arctic fjord (Godthåbsfjord, west) Tj ETQq1 1 0,784314 rgBT /Ove	1.9	31
82	Ecological effects of scrubber water discharge on coastal plankton: Potential synergistic effects of contaminants reduce survival and feeding of the copepod <i>Acartia tonsa</i> . <i>Marine Environmental Research</i> , 2017, 129, 374-385.	2.5	32
83	Biological Origins and Fate of Fluorescent Dissolved Organic Matter in Aquatic Environments. , 2014, , 278-300.		27
84	Seasonal contribution of terrestrial organic matter and biological oxygen demand to the Baltic Sea from three contrasting river catchments. <i>Biogeosciences</i> , 2014, 11, 3409-3419.	3.3	26
85	Recent decrease in DOC concentrations in Arctic lakes of southwest Greenland. <i>Geophysical Research Letters</i> , 2015, 42, 6703-6709.	4.0	26
86	Interactions between algal-bacterial populations and trace metals in fjord surface waters during a nutrient-stimulated summer bloom. <i>Limnology and Oceanography</i> , 2005, 50, 1855-1871.	3.1	24
87	Changes in the composition and bioavailability of dissolved organic matter during sea ice formation. <i>Limnology and Oceanography</i> , 2015, 60, 817-830.	3.1	23
88	Linkages between the circulation and distribution of dissolved organic matter in the White Sea, Arctic Ocean. <i>Continental Shelf Research</i> , 2016, 119, 1-13.	1.8	22
89	Biological transformation of Arctic dissolved organic matter in a NE Greenland fjord. <i>Limnology and Oceanography</i> , 2019, 64, 1014-1033.	3.1	22
90	Physical and bacterial controls on inorganic nutrients and dissolved organic carbon during a sea ice growth and decay experiment. <i>Marine Chemistry</i> , 2014, 166, 59-69.	2.3	21

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91	Calibration, standardization, and quantitative analysis of multidimensional fluorescence (MDF) measurements on complex mixtures (IUPAC Technical Report). <i>Pure and Applied Chemistry</i> , 2017, 89, 1849-1870.	1.9	18
92	The Influence of Sediment-Derived Dissolved Organic Matter in the Vistula River Estuary/Gulf of Gdansk. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2019, 124, 115-126.	3.0	16
93	Origin and fate of dissolved organic matter in four shallow Baltic Sea estuaries. <i>Biogeochemistry</i> , 2021, 154, 385-403.	3.5	16
94	Mass and UV-visible spectral fingerprints of dissolved organic matter: sources and reactivity. <i>Frontiers in Marine Science</i> , 2015, 2, .	2.5	13
95	Microbially-Mediated Fluorescent Organic Matter Transformations in the Deep Ocean. Do the Chemical Precursors Matter?. <i>Frontiers in Marine Science</i> , 2015, 2, .	2.5	13
96	Coupling Bacterioplankton Populations and Environment to Community Function in Coastal Temperate Waters. <i>Frontiers in Microbiology</i> , 2016, 7, 1533.	3.5	13
97	Radiocarbon Dating of Fluvial Organic Matter Reveals Land-Use Impacts in Boreal Peatlands. <i>Environmental Science & Technology</i> , 2014, 48, 12543-12551.	10.0	12
98	Changes in distributional patterns of plaice <i>Pleuronectes platessa</i> in the central and eastern North Sea; do declining nutrient loadings play a role?. <i>Journal of Sea Research</i> , 2017, 127, 164-172.	1.6	12
99	Insights into the origins, molecular characteristics and distribution of iron-binding ligands in the Arctic Ocean. <i>Marine Chemistry</i> , 2021, 231, 103936.	2.3	12
100	Production and transformation of dissolved neutral sugars and amino acids by bacteria in seawater. <i>Biogeosciences</i> , 2014, 11, 5349-5363.	3.3	11
101	Spectral signature of suspended fine particulate material on light absorption properties of CDOM. <i>Marine Chemistry</i> , 2017, 196, 98-106.	2.3	10
102	Terrestrial Dissolved Organic Matter Mobilized From Eroding Permafrost Controls Microbial Community Composition and Growth in Arctic Coastal Zones. <i>Frontiers in Earth Science</i> , 2021, 9, .	1.8	10
103	Variability of the Pacific-Derived Arctic Water Over the Southeastern Wandel Sea Shelf (Northeast) Tj ETQq1 1 0.784314 rgBT /Over 2.6 9	2.6	9
104	Insights Into Water Mass Origins in the Central Arctic Ocean From In-Situ Dissolved Organic Matter Fluorescence. <i>Journal of Geophysical Research: Oceans</i> , 2021, 126, e2021JC017407.	2.6	9
105	A Decade of Annual Arctic DOC Export With Polar Surface Water in the East Greenland Current. <i>Geophysical Research Letters</i> , 2020, 47, e2020GL089686.	4.0	5
106	Anthropogenic ²³⁶ U and ²³³ U in the Baltic Sea: Distributions, source terms, and budgets. <i>Water Research</i> , 2022, 210, 117987.	11.3	5
107	Sediment alkaline-extracted organic matter (AEOM) fluorescence: An archive of Holocene marine organic matter origins. <i>Science of the Total Environment</i> , 2019, 676, 298-304.	8.0	4
108	Estimation of Atlantic Water transit times in East Greenland fjords using a ²³³ U- ²³⁶ U tracer approach. <i>Chemical Geology</i> , 2022, 607, 121007.	3.3	3

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109	Examples of unwanted variation when characterising dissolved organic matter using direct injection electrospray mass spectrometry and chemometrics. <i>Analytical Methods</i> , 2018, 10, 2636-2646.	2.7	1
110	FluoRAS Sensor - Online organic matter for optimising recirculating aquaculture systems. <i>Research Ideas and Outcomes</i> , 0, 4, e23957.	1.0	1
111	Substrate diversity affects carbon utilization rate and threshold concentration for uptake by natural bacterioplankton communities. <i>Aquatic Microbial Ecology</i> , 2022, 88, 95-108.	1.8	1