Robert C Upstill-Goddard

List of Publications by Year
in descending order

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Version: 2024-02-01

74 papers	6,212 citations	71102 41 h-index	79698 73 g-index
86 all docs	86 docs citations	86 times ranked	6199 citing authors

#	Article	IF	Citations
1	In situ evaluation of air-sea gas exchange parameterizations using novel conservative and volatile tracers. Global Biogeochemical Cycles, 2000, 14, 373-387.	4.9	1,177
2	The rare earth elements in rivers, estuaries, and coastal seas and their significance to the composition of ocean waters. Geochimica Et Cosmochimica Acta, 1990, 54, 971-991.	3.9	909
3	Sea surface microlayers: A unified physicochemical and biological perspective of the airâ€“ocean interface. Progress in Oceanography, 2013, 109, 104-116.	3.2	336
4	Airâ€“sea gas exchange in rough and stormy seas measured by a dual-tracer technique. Nature, 1991, 349, 145-147.	27.8	280
5	Microbiology of aquatic surface microlayers. FEMS Microbiology Reviews, 2011, 35, 233-246.	8.6	138
6	The Ocean's Vital Skin: Toward an Integrated Understanding of the Sea Surface Microlayer. Frontiers in Marine Science, 2017, 4, .	2.5	137
7	Methane in the southern North Sea: Low-salinity inputs, estuarine removal, and atmospheric flux. Global Biogeochemical Cycles, 2000, 14, 1205-1217.	4.9	136
8	Methane and nitrous oxide fluxes in the polluted Adyar River and estuary, SE India. Marine Pollution Bulletin, 2008, 56, 2043-2051.	5.0	120
9	Airâ€“sea gas exchange in the coastal zone. Estuarine, Coastal and Shelf Science, 2006, 70, 388-404.	2.1	106
10	Ocean acidification induces multi-generational decline in copepod naupliar production with possible conflict for reproductive resource allocation. Journal of Experimental Marine Biology and Ecology, 2012, 418-419, 30-36.	1.5	105
11	Bacterial diversity in the bacterioneuston (sea surface microlayer): the bacterioneuston through the looking glass. Environmental Microbiology, 2005, 7, 723-736.	3.8	104
12	Open-ocean carbon monoxide photoproduction. Deep-Sea Research Part II: Topical Studies in Oceanography, 2006, 53, 1695-1705.	1.4	102
13	Tidal dynamics and rainfall control N2O and CH4emissions from a pristine mangrove creek. Geophysical Research Letters, 2006, 33, .	4.0	92
14	The Atlantic Meridional Transect (AMT) Programme: A contextual view 1995â€“2005. Deep-Sea Research Part II: Topical Studies in Oceanography, 2006, 53, 1485-1515.	1.4	90
15	Relating Carbon Monoxide Photoproduction to Dissolved Organic Matter Functionality. Environmental Science & Technology, 2008, 42, 3271-3276.	10.0	87
16	Non-conservative mixing behavior of colored dissolved organic matter in a humic-rich, turbid estuary. Geophysical Research Letters, 2001, 28, 3309-3312.	4.0	85
17	Impact of an artificial surfactant release on airâ€sea gas fluxes during Deep Ocean Gas Exchange Experiment II. Journal of Geophysical Research, 2011, 116, .	3.3	84
18	Variability of chromophoric organic matter in surface waters of the Atlantic Ocean. Deep-Sea Research Part II: Topical Studies in Oceanography, 2006, 53, 1666-1684.	1.4	82

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19	Discriminatory classification of natural and anthropogenic waters in two U.K. estuaries. Science of the Total Environment, 2007, 373, 305-323.	8.0	82
20	Gas transfer velocities in lakes measured with SF6. Tellus, Series B: Chemical and Physical Meteorology, 1990, 42, 364-377.	1.6	76
21	The estuarine mixing behaviour of peatland derived dissolved organic carbon and its relationship to chromophoric dissolved organic matter in two North Sea estuaries (U.K.). Estuarine, Coastal and Shelf Science, 2007, 74, 131-144.	2.1	74
22	Biogeochemical ocean-atmosphere transfers in the Arabian Sea. Progress in Oceanography, 2005, 65, 116-144.	3.2	73
23	Nitrous oxide and methane in the Atlantic Ocean between 50Â°N and 52Â°S: Latitudinal distribution and sea-to-air flux. Deep-Sea Research Part II: Topical Studies in Oceanography, 2009, 56, 964-976.	1.4	72
24	N₂O seasonal distributions and air-sea exchange in UK estuaries: Implications for the tropospheric N₂O source from European coastal waters. Journal of Geophysical Research, 2011, 116, .	3.3	72
25	Bacterioneuston control of air-water methane exchange determined with a laboratory gas exchange tank. Global Biogeochemical Cycles, 2003, 17, n/a-n/a.	4.9	65
26	Nitrous oxide emissions from the Arabian Sea: A synthesis. Atmospheric Chemistry and Physics, 2001, 1, 61-71.	4.9	62
27	Methane and nitrous oxide in surface water along the North-West Passage, Arctic Ocean. Marine Chemistry, 2010, 121, 80-86.	2.3	62
28	Carbon Dioxide and Methane Emissions from Mangrove-Associated Waters of the Andaman Islands, Bay of Bengal. Estuaries and Coasts, 2014, 37, 381-398.	2.2	60
29	Simultaneous high-precision measurements of methane and nitrous oxide in water and seawater by single phase equilibration gas chromatography. Deep-Sea Research Part I: Oceanographic Research Papers, 1996, 43, 1669-1682.	1.4	59
30	Nitrous oxide as a function of oxygen and archaeal gene abundance in the North Pacific. Nature Communications, 2016, 7, 13451.	12.8	58
31	The open-ocean source of atmospheric carbon monoxide. Deep-Sea Research Part II: Topical Studies in Oceanography, 2006, 53, 1685-1694.	1.4	54
32	Dissolved organic carbon and bacterial populations in the gelatinous surface microlayer of a Norwegian fjord mesocosm. FEMS Microbiology Letters, 2009, 299, 248-254.	1.8	54
33	MEMENTO: a proposal to develop a database of marine nitrous oxide and methane measurements. Environmental Chemistry, 2009, 6, 195.	1.5	53
34	Reduced airâ€“sea CO2 exchange in the Atlantic Ocean due to biological surfactants. Nature Geoscience, 2018, 11, 492-496.	12.9	53
35	Physical Exchanges at the Airâ€“Sea Interface: UKâ€“SOLAS Field Measurements. Bulletin of the American Meteorological Society, 2009, 90, 629-644.	3.3	52
36	The Atlantic Ocean surface microlayer from 50Â°N to 50Â°S is ubiquitously enriched in surfactants at wind speeds up to 13â€‰mâ€‰s^{â^'1}. Geophysical Research Letters, 2017, 44, 2852-2858.	4.0	52

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37	Phylogenetic and functional gene analysis of the bacterial and archaeal communities associated with the surface microlayer of an estuary. ISME Journal, 2008, 2, 776-789.	9.8	50
38	Comparison and validation of sampling strategies for the molecular microbial analysis of surface microlayers. Aquatic Microbial Ecology, 2009, 57, 69-77.	1.8	49
39	Carbon monoxide apparent quantum yields and photoproduction in the Tyne estuary. Biogeosciences, 2011, 8, 703-713.	3.3	48
40	Methane emissions from UK estuaries: Re-evaluating the estuarine source of tropospheric methane from Europe. Marine Chemistry, 2016, 180, 14-23.	2.3	48
41	Nitrous oxide and methane during the 1994 SW monsoon in the Arabian Sea/northwestern Indian Ocean. Journal of Geophysical Research, 1999, 104, 30067-30084.	3.3	46
42	Sulphur hexafluoride and helium-3 as sea-water tracers: deployment techniques and continuous underway analysis for sulphur hexafluoride. Analytica Chimica Acta, 1991, 249, 555-562.	5.4	42
43	An intercomparison of oceanic methane and nitrous oxide measurements. Biogeosciences, 2018, 15, 5891-5907.	3.3	42
44	Dissolved iodate and total iodine along the British east coast. Estuarine, Coastal and Shelf Science, 2003, 56, 261-270.	2.1	37
45	Hypoxia in the central Arabian Gulf Exclusive Economic Zone (EEZ) of Qatar during summer season. Estuarine, Coastal and Shelf Science, 2015, 159, 60-68.	2.1	36
46	Response of Copepods to Elevated pCO2 and Environmental Copper as Co-Stressors â€“ A Multigenerational Study. PLoS ONE, 2013, 8, e71257.	2.5	35
47	Meteorological controls of gas exchange at a small English lake. Limnology and Oceanography, 2002, 47, 1165-1174.	3.1	33
48	Surfactant control of gas transfer velocity along an offshore coastal transect: results from a laboratory gas exchange tank. Biogeosciences, 2016, 13, 3981-3989.	3.3	32
49	A Harmonized Nitrous Oxide (N2O) Ocean Observation Network for the 21st Century. Frontiers in Marine Science, 2019, 6, .	2.5	32
50	Nitrous oxide in the Bellingshausen Sea and Drake Passage. Journal of Geophysical Research, 1997, 102, 3383-3391.	3.3	29
51	The role of diagenesis in the estuarine budgets of iodine and bromine. Continental Shelf Research, 1988, 8, 405-430.	1.8	28
52	Evaluating the sources and fate of anthropogenic dissolved inorganic nitrogen (DIN) in two contrasting North Sea estuaries. Science of the Total Environment, 2006, 372, 317-333.	8.0	27
53	The riverine source of CH₄ and N₂O from the Republic of Congo, western Congo Basin. Biogeosciences, 2017, 14, 2267-2281.	3.3	25
54	The biogeochemical cycling of methane in Ria de Vigo, NW Spain: Sediment processing and seaâ€“air exchange. Journal of Marine Systems, 2007, 66, 258-271.	2.1	23

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55	Photochemical production of ammonium in the oligotrophic Cyprus Gyre (Eastern Mediterranean). Biogeosciences, 2006, 3, 439-449.	3.3	22
56	Climate change impacts on seaâ€“air fluxes of CO₂ in three Arctic seas: a sensitivity study using Earth observation. Biogeosciences, 2013, 10, 8109-8128.	3.3	22
57	The potential of SF6 as a geothermal tracer. Water Research, 1995, 29, 1065-1068.	11.3	21
58	Technical Note: Comparison of storage strategies of sea surface microlayer samples. Biogeosciences, 2013, 10, 4927-4936.	3.3	20
59	A Lagrangian biogeochemical study of an eddy in the Northeast Atlantic. Progress in Oceanography, 2008, 76, 366-398.	3.2	19
60	Ideas and perspectives: A strategic assessment of methane and nitrous oxide measurements in the marine environment. Biogeosciences, 2020, 17, 5809-5828.	3.3	16
61	The use of photolytic rhodamines WT and sulpho G as conservative tracers of dispersion in surface waters. Limnology and Oceanography, 2001, 46, 927-934.	3.1	14
62	The MILAN Campaign: Studying Diel Light Effects on the Airâ€“Sea Interface. Bulletin of the American Meteorological Society, 2020, 101, E146-E166.	3.3	14
63	Photochemical production and consumption of ammonium in a temperate riverâ€“sea system. Marine Chemistry, 2008, 112, 118-127.	2.3	13
64	Secretion of DNases by Marine Bacteria: A Culture Based and Bioinformatics Approach. Frontiers in Microbiology, 2019, 10, 969.	3.5	13
65	The denitrification paradox: The role of O2 in sediment N2O production. Estuarine, Coastal and Shelf Science, 2018, 200, 270-276.	2.1	11
66	Simulating estuarine nitrous oxide production by means of a dynamic model. Marine Pollution Bulletin, 2007, 54, 164-172.	5.0	10
67	Visualisation of the copepod female reproductive system using confocal laser scanning microscopy and two-photon microscopy. Journal of Crustacean Biology, 2012, 32, 685-692.	0.8	10
68	Reconsideration of seawater surfactant activity analysis based on an inter-laboratory comparison study. Marine Chemistry, 2019, 208, 103-111.	2.3	9
69	Photochemical oxidation of dimethylsulphide to dimethylsulphoxide in estuarine and coastal waters. Chemosphere, 2017, 186, 805-816.	8.2	7
70	Comparison of the Deliberate Tracer Method and Eddy Covariance Measurements to Determine the air/sea Transfer Velocity of CO₂. Geophysical Monograph Series, 0, , 225-231.	0.1	6
71	Supplement to Physical Exchanges at the Airâ€“Sea Interface: UKâ€“SOLAS Field Measurements. Bulletin of the American Meteorological Society, 2009, 90, ES9-ES16.	3.3	5
72	Photoâ€Reactivity of Surfactants in the Seaâ€Surface Microlayer and Subsurface Water of the Tyne Estuary, UK. Geophysical Research Letters, 2022, 49, .	4.0	5

#	Article	IF	Citations
73	An automated gas exchange tank for determining gas transfer velocities in natural seawater samples. Ocean Science, 2014, 10, 587-600.	3.4	4
74	The gas transfer velocity - wind speed relationship at Siblyback Lake.. A reply to comments by Kwan and Taylor. Tellus, Series B: Chemical and Physical Meteorology, 1993, 45, 299-300.	1.6	1