Are Olsen

List of Publications by Year
in descending order

Source: //exaly.com/author-pdf/7993214/publications.pdf

Version: 2024-02-01

121 papers	15,499 citations	46744 46 h-index	18651 117 g-index
219 all docs	219 docs citations	219 times ranked	16745 citing authors

#	Article	IF	Citations
1	An Assessment of CO₂ Storage and Seaâ€Air Fluxes for the Atlantic Ocean and Mediterranean Sea Between 1985 and 2018. Global Biogeochemical Cycles, 2024, 38, .	4.7	0
2	The annual update GLODAPv2.2023: the global interior ocean biogeochemical data product. Earth System Science Data, 2024, 16, 2047-2072.	8.8	0
3	In the Wake of Deeper Convection: Nonsteady State Anthropogenic Carbon in the Greenland Sea. Journal of Geophysical Research: Oceans, 2024, 129, .	2.6	0
4	Revising chronological uncertainties in marine archives using global anthropogenic signals: a case study on the oceanic ¹³CÂSuess effect. Geochronology, 2024, 6, 449-463.	2.4	0
5	Decadal Changes in Ventilation and Anthropogenic Carbon in the Nordic Seas. Journal of Geophysical Research: Oceans, 2023, 128, .	2.6	4
6	Global Surface Ocean Acidification Indicators From 1750 to 2100. Journal of Advances in Modeling Earth Systems, 2023, 15, .	3.7	19
7	Fingerprint of Climate Change on Southern Ocean Carbon Storage. Global Biogeochemical Cycles, 2023, 37, .	4.7	2
8	Phytoplankton abundance in the Barents Sea is predictable up to five years in advance. Communications Earth & Environment, 2023, 4, .	6.7	1
9	Sparse observations induce large biases in estimates of the global ocean CO ₂ sink: an ocean model subsampling experiment. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2023, 381, .	3.5	21
10	Decadal Trends in the Oceanic Storage of Anthropogenic Carbon From 1994 to 2014. AGU Advances, 2023, 4, .	6.1	13
11	On the Origins of Open Ocean Oxygen Minimum Zones. Journal of Geophysical Research: Oceans, 2023, 128, .	2.6	3
12	An Assessment of CO₂ Uptake in the Arctic Ocean From 1985 to 2018. Global Biogeochemical Cycles, 2023, 37, .	4.7	8
13	Long-term surface pCO₂ trends from observations and models. Tellus, Series B: Chemical and Physical Meteorology, 2022, 66, 23083.	1.6	51
14	Continued warming, salinification and oxygenation of the Greenland Sea gyre. Tellus, Series A: Dynamic Meteorology and Oceanography, 2022, 70, 1476434.	1.2	34
15	Best Practice Data Standards for Discrete Chemical Oceanographic Observations. Frontiers in Marine Science, 2022, 8, .	2.5	25
16	Acidification of the Nordic Seas. Biogeosciences, 2022, 19, 979-1012.	3.4	24
17	Nordic Seas Heat Loss, Atlantic Inflow, and Arctic Sea Ice Cover Over the Last Century. Reviews of Geophysics, 2022, 60, .	23.1	55
18	How Is the Ocean Anthropogenic Carbon Reservoir Filled?. Global Biogeochemical Cycles, 2022, 36, .	4.7	11

#	Article	IF	Citations
19	GLODAPv2.2022: the latest version of the global interior ocean biogeochemical data product. Earth System Science Data, 2022, 14, 5543-5572.	8.8	46
20	Preformed Properties for Marine Organic Matter and Carbonate Mineral Cycling Quantification. Global Biogeochemical Cycles, 2021, 35, e2020GB006623.	4.7	29
21	The northern European shelf as an increasing net sink for CO₂. Biogeosciences, 2021, 18, 1127-1147.	3.4	16
22	Inâ€air oneâ€point calibration of oxygen optodes in underway systems. Limnology and Oceanography: Methods, 2021, 19, 293-302.	2.0	1
23	Sea surface pCO2 variability and air-sea CO2 exchange in the coastal Sudanese Red Sea. Regional Studies in Marine Science, 2021, 44, 101796.	0.8	1
24	A vision for FAIR ocean data products. Communications Earth & Environment, 2021, 2, .	6.7	12
25	An updated version of the global interior ocean biogeochemical data product, GLODAPv2.2021. Earth System Science Data, 2021, 13, 5565-5589.	8.8	62
26	Processes Driving Global Interior Ocean pH Distribution. Global Biogeochemical Cycles, 2020, 34, e2019GB006229.	4.7	38
27	Ocean Biogeochemical Predictionsâ€"Initialization and Limits of Predictability. Frontiers in Marine Science, 2020, 7, .	2.5	14
28	A multi-decadal record of oceanographic changes of the past ~165 years (1850-2015 AD) from Northwest of Iceland. PLoS ONE, 2020, 15, e0239373.	2.5	6
29	A global monthly climatology of oceanic total dissolved inorganic carbon: a neural network approach. Earth System Science Data, 2020, 12, 1725-1743.	8.8	27
30	An updated version of the global interior ocean biogeochemical data product, GLODAPv2.2020. Earth System Science Data, 2020, 12, 3653-3678.	8.8	84
31	A Framework for the Development, Design and Implementation of a Sustained Arctic Ocean Observing System. Frontiers in Marine Science, 2019, 6, .	2.5	15
32	On the Future of Argo: A Global, Full-Depth, Multi-Disciplinary Array. Frontiers in Marine Science, 2019, 6, .	2.5	261
33	Large Decadal Changes in Airâ€Sea CO₂ Fluxes in the Caribbean Sea. Journal of Geophysical Research: Oceans, 2019, 124, 6960-6982.	2.6	14
34	A Surface Ocean CO2 Reference Network, SOCONET and Associated Marine Boundary Layer CO2 Measurements. Frontiers in Marine Science, 2019, 6, .	2.5	28
35	Constraining the Oceanic Uptake and Fluxes of Greenhouse Gases by Building an Ocean Network of Certified Stations: The Ocean Component of the Integrated Carbon Observation System, ICOS-Oceans. Frontiers in Marine Science, 2019, 6, .	2.5	13
36	Trends of Ocean Acidification and pCO₂ in the Northern North Sea, 2003â€"2015. Journal of Geophysical Research G: Biogeosciences, 2019, 124, 3088-3103.	3.0	26

#	Article	IF	Citations
37	Trends in anthropogenic carbon in the Arctic Ocean. Progress in Oceanography, 2019, 178, 102177.	3.2	11
38	Wintertime fCO₂ Variability in the Subpolar North Atlantic Since 2004. Geophysical Research Letters, 2019, 46, 1580-1590.	3.9	15
39	The oceanic sink for anthropogenic CO ₂ from 1994 to 2007. Science, 2019, 363, 1193-1199.	19.8	562
40	Winter weather controls net influx of atmospheric CO2 on the north-west European shelf. Scientific Reports, 2019, 9, 20153.	3.4	26
41	Surface ocean pH and buffer capacity: past, present and future. Scientific Reports, 2019, 9, 18624.	3.4	233
42	A global monthly climatology of total alkalinity: a neural network approach. Earth System Science Data, 2019, 11, 1109-1127.	8.8	33
43	GLODAPv2.2019 â€“ an update of GLODAPv2. Earth System Science Data, 2019, 11, 1437-1461.	8.8	112
44	A Modelâ€Based Evaluation of the Inverse Gaussian Transitâ€Time Distribution Method for Inferring Anthropogenic Carbon Storage in the Ocean. Journal of Geophysical Research: Oceans, 2018, 123, 1777-1800.	2.6	13
45	Inorganic carbon and water masses in the Irminger Sea sinceÂ1991. Biogeosciences, 2018, 15, 51-72.	3.4	14
46	Arctic Ocean CO₂ uptake: an improved multiyear estimate of the airâ€“sea CO₂ flux incorporating chlorophyllÂ<i>a</i> concentrations. Biogeosciences, 2018, 15, 1643-1661.	3.4	58
47	Mechanisms and Early Detections of Multidecadal Oxygen Changes in the Interior Subpolar North Atlantic. Geophysical Research Letters, 2018, 45, 4218-4229.	3.9	13
48	A global estimate of the full oceanic ¹³C Suess effect since the preindustrial. Global Biogeochemical Cycles, 2017, 31, 492-514.	4.7	94
49	A global ocean climatology of preindustrial and modern ocean Î´¹³C. Global Biogeochemical Cycles, 2017, 31, 515-534.	4.7	74
50	Arctic Intermediate Water in the Nordic Seas, 1991â€“2009. Deep-Sea Research Part I: Oceanographic Research Papers, 2017, 128, 82-97.	1.5	34
51	Effects of seaâ€ice and biogeochemical processes and storms on underâ€ice water fCO₂ during the winterâ€spring transition in the high <scp>A</scp>rctic <scp>O</scp>cean: Implications for seaâ€air CO₂ fluxes. Journal of Geophysical Research: Oceans, 2017, 122, 5566-5587.	2.6	41
52	Autonomous observing platform CO₂ data shed new light on the Southern Ocean carbon cycle. Global Biogeochemical Cycles, 2017, 31, 1032-1035.	4.7	1
53	Aragonite saturation states and pH in western Norwegian fjords: seasonal cycles and controlling factors, 2005â€“2009. Ocean Science, 2016, 12, 937-951.	3.4	18
54	Ocean acidification in the subpolar North Atlantic: rates and mechanisms controlling pH changes. Biogeosciences, 2016, 13, 3701-3715.	3.4	22

#	Article	IF	Citations
55	Mapping of the airâ€“sea CO2 flux in the Arctic Ocean and its adjacent seas: Basin-wide distribution and seasonal to interannual variability. Polar Science, 2016, 10, 323-334.	1.3	68
56	Irminger Sea deep convection injects oxygen and anthropogenic carbon to the ocean interior. Nature Communications, 2016, 7, 13244.	13.0	76
57	The Global Ocean Data Analysis Project version 2 (GLODAPv2) â€“ an internally consistent data product for the world ocean. Earth System Science Data, 2016, 8, 297-323.	8.8	456
58	A new global interior ocean mapped climatology: the 1Â°â€¯Ã—â€‰â€¯1Â° GLODAP version 2. Earth System Science Data, 2016, 8, 325-340.	8.8	302
59	A multi-decade record of high-quality <i>f</i>CO₂ data in version 3 of the Surface Ocean CO₂ Atlas (SOCAT). Earth System Science Data, 2016, 8, 383-413.	8.8	436
60	A statistical gapâ€filling method to interpolate global monthly surface ocean carbon dioxide data. Journal of Advances in Modeling Earth Systems, 2015, 7, 1554-1575.	3.7	32
61	Trends and drivers in global surface ocean pH over the past 3 decades. Biogeosciences, 2015, 12, 1285-1298.	3.4	120
62	Data-based estimates of the ocean carbon sink variability â€“ first results of the Surface Ocean <i>p</i>CO₂ Mapping intercomparison (SOCOM). Biogeosciences, 2015, 12, 7251-7278.	3.4	180
63	Surface ocean-lower atmosphere study: Scientific synthesis and contribution to Earth system science. Anthropocene, 2015, 12, 54-68.	3.4	13
64	Arctic Carbon Cycle: Patterns, Impacts and Possible Changes. , 2015, , 95-115.		21
65	Interannual seaâ€“air CO₂ flux variability from an observation-driven ocean mixed-layer scheme. Biogeosciences, 2014, 11, 4599-4613.	3.4	116
66	Modelling ocean acidification in the Nordic and Barents Seas in present and future climate. Journal of Marine Systems, 2014, 131, 10-20.	2.1	29
67	Perspectives and Integration in SOLAS Science. Springer Earth System Sciences, 2014, , 247-306.	0.0	2
68	Productivity in the Barents Sea - Response to Recent Climate Variability. PLoS ONE, 2014, 9, e95273.	2.5	125
69	An update to the Surface Ocean CO₂ Atlas (SOCAT version 2). Earth System Science Data, 2014, 6, 69-90.	8.8	163
70	Seasonal Variations of the Surface Nutrients and Hydrography in the Norwegian Sea. International Journal of Environmental Science and Development, 2014, 5, 496-505.	0.6	11
71	Anthropogenic carbon changes in the Irminger Basin (1981â€“2006): Coupling Î´13CDIC and DIC observations. Journal of Marine Systems, 2013, 126, 24-32.	2.1	14
72	Annual and seasonal fCO2 and airâ€“sea CO2 fluxes in the Barents Sea. Journal of Marine Systems, 2013, 113-114, 62-74.	2.1	20

#	Article	IF	Citations
73	THE ROLE OF THE BARENTS SEA IN THE ARCTIC CLIMATE SYSTEM. Reviews of Geophysics, 2013, 51, 415-449.	23.1	375
74	An assessment of the Atlantic and Arctic seaâ€“air CO₂ fluxes, 1990â€“2009. Biogeosciences, 2013, 10, 607-627.	3.4	138
75	Global surface-ocean <i>p</i>^{CO₂} and seaâ€“air CO₂ flux variability from an observation-driven ocean mixed-layer scheme. Ocean Science, 2013, 9, 193-216.	3.4	150
76	A uniform, quality controlled Surface Ocean CO₂ Atlas (SOCAT). Earth System Science Data, 2013, 5, 125-143.	8.8	165
77	Surface Ocean CO₂ Atlas (SOCAT) gridded data products. Earth System Science Data, 2013, 5, 145-153.	8.8	104
78	The role of phytoplankton dynamics in the seasonal and interannual variability of carbon in the subpolar North Atlantic â€“ a modeling study. Geoscientific Model Development, 2012, 5, 683-707.	3.7	13
79	Surface water fCO2 algorithms for the high-latitude Pacific sector of the Southern Ocean. Remote Sensing of Environment, 2012, 119, 184-196.	11.0	25
80	Global data products help assess changes to ocean carbon sink. Eos, 2012, 93, 125-126.	0.1	15
81	A model study of the seasonal and longâ€“term North Atlantic surface <i>p</i>CO₂ variability. Biogeosciences, 2012, 9, 907-923.	3.4	26
82	The Nordic Seas carbon budget: Sources, sinks, and uncertainties. Global Biogeochemical Cycles, 2011, 25, n/a-n/a.	4.7	49
83	Direct measurements of CO2flux in the Greenland Sea. Geophysical Research Letters, 2011, 38, n/a-n/a.	3.9	13
84	Spatiotemporal variations of <i>f</i>CO₂ in the North Sea. Ocean Science, 2010, 6, 77-89.	3.4	44
85	Nordic Seas nutrients data in CARINA. Earth System Science Data, 2010, 2, 205-213.	8.8	7
86	Recent acceleration of the sea surface fCO₂ growth rate in the North Atlantic subpolar gyre (1993â€“2008) revealed by winter observations. Global Biogeochemical Cycles, 2010, 24, .	4.7	68
87	Nordic seas transit time distributions and anthropogenic CO₂. Journal of Geophysical Research, 2010, 115, .	3.2	30
88	Expanding Carbon Data Collection From the Ocean's Interior. Eos, 2010, 91, 457-458.	0.1	6
89	The CARINA data synthesis project: introduction and overview. Earth System Science Data, 2010, 2, 105-121.	8.8	119
90	Nordic Seas dissolved oxygen data in CARINA. Earth System Science Data, 2010, 2, 123-131.	8.8	6

#	Article	IF	Citations
91	CARINA data synthesis project: pH data scale unification and cruise adjustments. Earth System Science Data, 2010, 2, 133-155.	8.8	16
92	Atlantic Ocean CARINA data: overview and salinity adjustments. Earth System Science Data, 2010, 2, 17-34.	8.8	20
93	Quality control procedures and methods of the CARINA database. Earth System Science Data, 2010, 2, 35-49.	8.8	91
94	Arctic Ocean data in CARINA. Earth System Science Data, 2010, 2, 71-78.	8.8	24
95	Estimating the monthly <i>p</i>CO₂ distribution in the North Atlantic using a self-organizing neural network. Biogeosciences, 2009, 6, 1405-1421.	3.4	113
96	Recommendations for autonomous underway pCO2 measuring systems and data-reduction routines. Deep-Sea Research Part II: Topical Studies in Oceanography, 2009, 56, 512-522.	1.5	276
97	Climatological mean and decadal change in surface ocean pCO2, and net seaâ€“air CO2 flux over the global oceans. Deep-Sea Research Part II: Topical Studies in Oceanography, 2009, 56, 554-577.	1.5	1,605
98	Algorithms to estimate the carbon dioxide uptake in the northern North Atlantic using shipboard observations, satellite and ocean analysis data. Deep-Sea Research Part II: Topical Studies in Oceanography, 2009, 56, 630-639.	1.5	41
99	Optimal evaluation of the surface ocean CO₂ system in the northern North Atlantic using data from voluntary observing ships. Limnology and Oceanography: Methods, 2009, 7, 109-118.	2.0	30
100	Modelling recent changes in carbon uptake in the North Atlantic. IOP Conference Series: Earth and Environmental Science, 2009, 6, 032011.	0.3	0
101	Overview of the Nordic Seas CARINA data and salinity measurements. Earth System Science Data, 2009, 1, 25-34.	8.8	15
102	Nordic Seas total dissolved inorganic carbon data in CARINA. Earth System Science Data, 2009, 1, 35-43.	8.8	13
103	Nordic Seas total alkalinity data in CARINA. Earth System Science Data, 2009, 1, 77-86.	8.8	10
104	Sea-surface CO₂ fugacity in the subpolar North Atlantic. Biogeosciences, 2008, 5, 535-547.	3.4	62
105	Seasonal and interannual variability of the airâ€“sea CO2 flux in the Atlantic sector of the Barents Sea. Marine Chemistry, 2007, 104, 203-213.	2.3	44
106	Airâ€“sea CO2 fluxes in the Caribbean Sea from 2002â€“2004. Journal of Marine Systems, 2007, 66, 272-284.	2.1	34
107	Magnitude and origin of the anthropogenic CO2increase and13C Suess effect in the Nordic seas since 1981. Global Biogeochemical Cycles, 2006, 20, n/a-n/a.	4.7	90
108	Mg/Ca ratios in the planktonic foraminiferNeogloboquadrina pachyderma(sinistral) in the northern North Atlantic/Nordic Seas. Geochemistry, Geophysics, Geosystems, 2006, 7, n/a-n/a.	2.5	31

#	Article	IF	Citations
109	Reconstructing the time history of the air-sea CO2disequilibrium and its rate of change in the eastern subpolar North Atlantic, 1972â€“1989. Geophysical Research Letters, 2006, 33, .	3.9	42
110	Sea-ice and brine formation in Storfjorden: Implications for the Arctic wintertime airâ€”sea CO2 flux. Geophysical Monograph Series, 2005, , 177-187.	0.0	13
111	A review of the inorganic carbon cycle of the Nordic Seas and Barents Sea. Geophysical Monograph Series, 2005, , 157-175.	0.0	15
112	Response of the surface ocean CO2 system in the Nordic seas and northern North Atlantic to climate change. Geophysical Monograph Series, 2005, , 189-197.	0.0	30
113	The effect of wind speed products and wind speedâ€”gas exchange relationships on interannual variability of the airâ€”sea CO2gas transfer velocity. Tellus, Series B: Chemical and Physical Meteorology, 2005, 57, 95-106.	1.6	4
114	Seaâ€“air flux of CO2 in the Caribbean Sea estimated using in situ and remote sensing data. Remote Sensing of Environment, 2004, 89, 309-325.	11.0	74
115	Diurnal variations of surface oceanpCO2and sea-air CO2flux evaluated using remotely sensed data. Geophysical Research Letters, 2004, 31, .	3.9	17
116	Anthropogenic increase of oceanicpCO2in the Barents Sea surface water. Journal of Geophysical Research, 2003, 108, .	3.2	30
117	On the nature of the factors that control spring bloom development at the entrance to the Barents Sea and their interannual variability. Sarsia, 2003, 88, 379-393.	0.5	32
118	Interannual variability in the wintertime airâ€“sea flux of carbon dioxide in the northern North Atlantic, 1981â€“2001. Deep-Sea Research Part I: Oceanographic Research Papers, 2003, 50, 1323-1338.	1.5	55
119	Air-sea flux of anthropogenic carbon dioxide in the North Atlantic. Geophysical Research Letters, 2002, 29, 16-1-16-4.	3.9	24
120	A high precision spectrophotometric method for on-line shipboard seawater pH measurements: the automated marine pH sensor (AMpS). Talanta, 2002, 56, 61-69.	5.6	60
121	The impact of climate variations on fluxes of oxygen in the Barents Sea. Continental Shelf Research, 2002, 22, 1117-1128.	1.9	5