

Katsumi Matsumoto

List of Publications by Year in descending order

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69
papers

7,683
citations

172386

29
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102432

66
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83
all docs

83
docs citations

83
times ranked

9775
citing authors

#	ARTICLE	IF	CITATIONS
1	Characterizing post-industrial changes in the ocean carbon cycle in an Earth system model. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 2022, 62, 296.	0.8	28
2	Sensitivity of Steady State, Deep Ocean Dissolved Organic Carbon to Surface Boundary Conditions. <i>Global Biogeochemical Cycles</i> , 2022, 36, .	1.9	2
3	Marine phytoplankton resilience may moderate oligotrophic ecosystem responses and biogeochemical feedbacks to climate change. <i>Limnology and Oceanography</i> , 2022, 67, .	1.6	15
4	Appreciating GBC Reviewers. <i>Global Biogeochemical Cycles</i> , 2022, 36, .	1.9	0
5	MESMO 3: Flexible phytoplankton stoichiometry and refractory dissolved organic matter. <i>Geoscientific Model Development</i> , 2021, 14, 2265-2288.	1.3	4
6	Thank You to Our 2020 Reviewers. <i>Global Biogeochemical Cycles</i> , 2021, 35, e2021GB006998.	1.9	0
7	Drawdown of Atmospheric pCO ₂ Via Variable Particle Flux Stoichiometry in the Ocean Twilight Zone. <i>Geophysical Research Letters</i> , 2021, 48, e2021GL094924.	1.5	2
8	Stability of Marine Organic Matter Respiration Stoichiometry. <i>Geophysical Research Letters</i> , 2020, 47, e2019GL085564.	1.5	13
9	Toward Determining the Spatio-Temporal Variability of Upper-Ocean Ecosystem Stoichiometry From Satellite Remote Sensing. <i>Frontiers in Marine Science</i> , 2020, 7, .	1.2	9
10	Thank You to Our 2019 Reviewers. <i>Global Biogeochemical Cycles</i> , 2020, 34, e2020GB006628.	1.9	0
11	Carbon Export Buffering and CO ₂ Drawdown by Flexible Phytoplankton C:N:P Under Glacial Conditions. <i>Paleoceanography and Paleoclimatology</i> , 2020, 35, e2019PA003823.	1.3	21
12	A meta-analysis on environmental drivers of marine phytoplankton C:N:P. <i>Biogeosciences</i> , 2020, 17, 2939-2954.	1.3	32
13	Shifts in regional production as a driver of future global ocean production stoichiometry. <i>Environmental Research Letters</i> , 2020, 15, 124027.	2.2	4
14	Assessing change in the overturning behavior of the Laurentian Great Lakes using remotely sensed lake surface water temperatures. <i>Remote Sensing of Environment</i> , 2019, 235, 111427.	4.6	31
15	Climate projection of Lake Superior under a future warming scenario. <i>Journal of Limnology</i> , 2019, 78, .	0.3	7
16	The changing ocean and freshwater CO ₂ system. <i>Fish Physiology</i> , 2019, 37, 1-32.	0.2	16
17	Contrasting Impacts of the South Pacific Split Jet and the Southern Annular Mode Modulation on Southern Ocean Circulation and Biogeochemistry. <i>Paleoceanography and Paleoclimatology</i> , 2018, 33, 2-20.	1.3	10
18	Effects of incorporating age-specific traits of zooplankton into a marine ecosystem model. <i>Ecological Modelling</i> , 2018, 368, 257-264.	1.2	7

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19	Atmospheric $^{14}\text{C}/^{12}\text{C}$ changes during the last glacial period from Hulu Cave. <i>Science</i> , 2018, 362, 1293-1297.	6.0	86
20	Modeling nearshore-offshore exchange in Lake Superior. <i>PLoS ONE</i> , 2018, 13, e0193183.	1.1	6
21	Tantalizing evidence for the glacial North Atlantic bottom water. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 2794-2796.	3.3	3
22	Buffering of Ocean Export Production by Flexible Elemental Stoichiometry of Particulate Organic Matter. <i>Global Biogeochemical Cycles</i> , 2017, 31, 1528-1542.	1.9	35
23	Controls on biogenic silica burial in the Southern Ocean. <i>Global Biogeochemical Cycles</i> , 2015, 29, 1599-1616.	1.9	35
24	Ventilation and dissolved oxygen cycle in Lake Superior: Insights from a numerical model. <i>Geochemistry, Geophysics, Geosystems</i> , 2015, 16, 3097-3110.	1.0	9
25	Linkage of deep sea rapid acidification process and extinction of benthic foraminifera in the deep sea at the Paleocene-Eocene transition. <i>Island Arc</i> , 2015, 24, 301-316.	0.5	7
26	Different mechanisms of silicic acid leakage and their biogeochemical consequences. <i>Paleoceanography</i> , 2014, 29, 238-254.	3.0	25
27	Long-Term Climate Change Commitment and Reversibility: An EMIC Intercomparison. <i>Journal of Climate</i> , 2013, 26, 5782-5809.	1.2	208
28	Decoupled Response of Ocean Acidification to Variations in Climate Sensitivity. <i>Journal of Climate</i> , 2013, 26, 1764-1771.	1.2	5
29	MESMO 2: a mechanistic marine silica cycle and coupling to a simple terrestrial scheme. <i>Geoscientific Model Development</i> , 2013, 6, 477-494.	1.3	21
30	Carbon dioxide and climate impulse response functions for the computation of greenhouse gas metrics: a multi-model analysis. <i>Atmospheric Chemistry and Physics</i> , 2013, 13, 2793-2825.	1.9	517
31	Atmospheric ^{14}C reduction in simulations of Atlantic overturning circulation shutdown. <i>Global Biogeochemical Cycles</i> , 2013, 27, 296-304.	1.9	39
32	Historical and idealized climate model experiments: an intercomparison of Earth system models of intermediate complexity. <i>Climate of the Past</i> , 2013, 9, 1111-1140.	1.3	157
33	A three-dimensional model of Lake Superior with ice and biogeochemistry. <i>Journal of Great Lakes Research</i> , 2012, 38, 61-71.	0.8	29
34	Stability of the Atlantic meridional overturning circulation: A model intercomparison. <i>Geophysical Research Letters</i> , 2012, 39, .	1.5	185
35	The role of shelf nutrients on glacial-interglacial CO_2 : A negative feedback. <i>Global Biogeochemical Cycles</i> , 2012, 26, .	1.9	16
36	Causal mechanisms of the deep chlorophyll maximum in Lake Superior: A numerical modeling investigation. <i>Journal of Great Lakes Research</i> , 2012, 38, 504-513.	0.8	28

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37	Small eddies observed in Lake Superior using SAR and sea surface temperature imagery. <i>Journal of Great Lakes Research</i> , 2012, 38, 786-797.	0.8	20
38	Past daily light cycle recorded in the strontium/calcium ratios of giant clam shells. <i>Nature Communications</i> , 2012, 3, 761.	5.8	80
39	Southern Ocean wind response to North Atlantic cooling and the rise in atmospheric CO ₂ : Modeling perspective and paleoceanographic implications. <i>Paleoceanography</i> , 2011, 26, .	3.0	119
40	The RCP greenhouse gas concentrations and their extensions from 1765 to 2300. <i>Climatic Change</i> , 2011, 109, 213-241.	1.7	2,948
41	Effects of sea ice on atmospheric CO ₂ : A revised view and implications for glacial and future climates. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	24
42	The role of ocean transport in the uptake of anthropogenic CO ₂ . <i>Biogeosciences</i> , 2009, 6, 375-390.	1.3	93
43	Influence of export rain ratio changes on atmospheric CO ₂ and sedimentary calcite preservation. <i>Journal of Oceanography</i> , 2009, 65, 209-221.	0.7	8
44	Atmospheric Lifetime of Fossil Fuel Carbon Dioxide. <i>Annual Review of Earth and Planetary Sciences</i> , 2009, 37, 117-134.	4.6	627
45	Response of deep-sea CaCO ₃ sedimentation to Atlantic meridional overturning circulation shutdown. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	29
46	A corollary to the silicic acid leakage hypothesis. <i>Paleoceanography</i> , 2008, 23, .	3.0	45
47	Climate and carbon cycle changes under the overshoot scenario. <i>Global and Planetary Change</i> , 2008, 62, 164-172.	1.6	14
48	First description of the Minnesota Earth System Model for Ocean biogeochemistry (MESMO 1.0). <i>Geoscientific Model Development</i> , 2008, 1, 1-15.	1.3	36
49	Paleoceanography of the northwestern Pacific during the Albian. <i>Palaeogeography, Palaeoclimatology, Palaeoecology</i> , 2007, 254, 477-491.	1.0	3
50	Impact of circulation on export production, dissolved organic matter, and dissolved oxygen in the ocean: Results from Phase II of the Ocean Carbon Cycle Model Intercomparison Project (OCMIP-2). <i>Global Biogeochemical Cycles</i> , 2007, 21, .	1.9	211
51	Effect of temperature-dependent organic carbon decay on atmospheric pCO ₂ . <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	27
52	Biology-mediated temperature control on atmospheric CO ₂ and ocean biogeochemistry. <i>Geophysical Research Letters</i> , 2007, 34, .	1.5	78
53	Radiocarbon-based circulation age of the world oceans. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	173
54	Model simulations of carbon sequestration in the northwest Pacific by patch fertilization. <i>Journal of Oceanography</i> , 2006, 62, 887-902.	0.7	6

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55	Model Simulations of Carbon Sequestration in the Northwest Pacific by Direct Injection. <i>Journal of Oceanography</i> , 2005, 61, 747-760.	0.7	5
56	How accurate is the estimation of anthropogenic carbon in the ocean? An evaluation of the $\delta^{13}C^*$ method. <i>Global Biogeochemical Cycles</i> , 2005, 19, .	1.9	101
57	Oceanic ventilation and biogeochemical cycling: Understanding the physical mechanisms that produce realistic distributions of tracers and productivity. <i>Global Biogeochemical Cycles</i> , 2004, 18, n/a-n/a.	1.9	108
58	Evaluation of ocean carbon cycle models with data-based metrics. <i>Geophysical Research Letters</i> , 2004, 31, n/a-n/a.	1.5	168
59	Persistence of Gulf Stream separation during the Last Glacial Period: Implications for current separation theories. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	29
60	A new estimate of the $CaCO_3$ to organic carbon export ratio. <i>Global Biogeochemical Cycles</i> , 2002, 16, 54-1-54-12.	1.9	175
61	Silicic acid leakage from the Southern Ocean: A possible explanation for glacial atmospheric pCO_2 . <i>Global Biogeochemical Cycles</i> , 2002, 16, 5-1-5-23.	1.9	239
62	A switch from $Si(OH)_4$ to NO_3^- depletion in the glacial Southern Ocean. <i>Geophysical Research Letters</i> , 2002, 29, 5-1.	1.5	294
63	Interior hydrography and circulation of the glacial Pacific Ocean. <i>Quaternary Science Reviews</i> , 2002, 21, 1693-1704.	1.4	161
64	Similar glacial and Holocene Southern Ocean hydrography. <i>Paleoceanography</i> , 2001, 16, 445-454.	3.0	45
65	Can deep ocean carbonate preservation history inferred from atmospheric pCO_2 account for ^{14}C and $\%CaCO_3$ profiles on the Ontongâ€“Java Plateau?. <i>Earth and Planetary Science Letters</i> , 2001, 192, 319-329.	1.8	3
66	Similar glacial and Holocene deep water circulation inferred from southeast Pacific benthic foraminiferal carbon isotope composition. <i>Paleoceanography</i> , 1999, 14, 149-163.	3.0	77
67	Radiocarbon age differences between coexisting foraminiferal species. <i>Paleoceanography</i> , 1999, 14, 431-436.	3.0	48
68	Modeled Glacial North Atlantic ice-rafted debris pattern and its sensitivity to various boundary conditions. <i>Paleoceanography</i> , 1997, 12, 271-280.	3.0	15
69	An iceberg drift and decay model to compute the ice-rafted debris and iceberg meltwater flux: Application to the interglacial North Atlantic. <i>Paleoceanography</i> , 1996, 11, 729-742.	3.0	22