Katsumi Matsumoto

List of Publications by Year
in descending order

69	7,683	172386 29	102432 66
papers	citations	h-index	g-index

83	83	83	9775
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	The RCP greenhouse gas concentrations and their extensions from 1765 to 2300. Climatic Change, 2011, 109, 213-241.	1.7	2,948
2	Atmospheric Lifetime of Fossil Fuel Carbon Dioxide. Annual Review of Earth and Planetary Sciences, 2009, 37, 117-134.	4.6	627
3	Carbon dioxide and climate impulse response functions for the computation of greenhouse gas metrics: a multi-model analysis. Atmospheric Chemistry and Physics, 2013, 13, 2793-2825.	1.9	517
4	A switch from Si(OH)4to NO3â^'depletion in the glacial Southern Ocean. Geophysical Research Letters, 2002, 29, 5-1.	1.5	294
5	Silicic acid leakage from the Southern Ocean: A possible explanation for glacial atmosphericpCO2. Global Biogeochemical Cycles, 2002, 16, 5-1-5-23.	1.9	239
6	Impact of circulation on export production, dissolved organic matter, and dissolved oxygen in the ocean: Results from Phase II of the Ocean Carbonâ€cycle Model Intercomparison Project (OCMIPâ€2). Global Biogeochemical Cycles, 2007, 21, .	1.9	211
7	Long-Term Climate Change Commitment and Reversibility: An EMIC Intercomparison. Journal of Climate, 2013, 26, 5782-5809.	1.2	208
8	Stability of the Atlantic meridional overturning circulation: A model intercomparison. Geophysical Research Letters, 2012, 39, .	1.5	185
9	A new estimate of the CaCO3to organic carbon export ratio. Global Biogeochemical Cycles, 2002, 16, 54-1-54-12.	1.9	175
10	Radiocarbonâ€based circulation age of the world oceans. Journal of Geophysical Research, 2007, 112, .	3.3	173
11	Evaluation of ocean carbon cycle models with data-based metrics. Geophysical Research Letters, 2004, 31, n/a-n/a.	1.5	168
12	Interior hydrography and circulation of the glacial Pacific Ocean. Quaternary Science Reviews, 2002, 21, 1693-1704.	1.4	161
13	Historical and idealized climate model experiments: an intercomparison of Earth system models of intermediate complexity. Climate of the Past, 2013, 9, 1111-1140.	1.3	157
14	Southern Ocean wind response to North Atlantic cooling and the rise in atmospheric CO₂: Modeling perspective and paleoceanographic implications. Paleoceanography, 2011, 26, .	3.0	119
15	Oceanic ventilation and biogeochemical cycling: Understanding the physical mechanisms that produce realistic distributions of tracers and productivity. Global Biogeochemical Cycles, 2004, 18, n/a-n/a.	1.9	108
16	How accurate is the estimation of anthropogenic carbon in the ocean? An evaluation of the Î”C* method. Global Biogeochemical Cycles, 2005, 19, .	1.9	101
17	The role of ocean transport in the uptake of anthropogenic CO₂. Biogeosciences, 2009, 6, 375-390.	1.3	93
18	Atmospheric ¹⁴ C/ ¹² C changes during the last glacial period from Hulu Cave. Science, 2018, 362, 1293-1297.	6.0	86

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19	Past daily light cycle recorded in the strontium/calcium ratios of giant clam shells. Nature Communications, 2012, 3, 761.	5.8	80
20	Biologyâ€mediated temperature control on atmospheric pCO₂ and ocean biogeochemistry. Geophysical Research Letters, 2007, 34, .	1.5	78
21	Similar glacial and Holocene deep water circulation inferred from southeast Pacific benthic foraminiferal carbon isotope composition. Paleoceanography, 1999, 14, 149-163.	3.0	77
22	Radiocarbon age differences between coexisting foraminiferal species. Paleoceanography, 1999, 14, 431-436.	3.0	48
23	Similar glacial and Holocene Southern Ocean hydrography. Paleoceanography, 2001, 16, 445-454.	3.0	45
24	A corollary to the silicic acid leakage hypothesis. Paleoceanography, 2008, 23, .	3.0	45
25	Atmospheric Î”¹⁴C reduction in simulations of Atlantic overturning circulation shutdown. Global Biogeochemical Cycles, 2013, 27, 296-304.	1.9	39
26	First description of the Minnesota Earth System Model for Ocean biogeochemistry (MESMO 1.0). Geoscientific Model Development, 2008, 1, 1-15.	1.3	36
27	Controls on biogenic silica burial in the Southern Ocean. Global Biogeochemical Cycles, 2015, 29, 1599-1616.	1.9	35
28	Buffering of Ocean Export Production by Flexible Elemental Stoichiometry of Particulate Organic Matter. Global Biogeochemical Cycles, 2017, 31, 1528-1542.	1.9	35
29	A meta-analysis on environmental drivers of marine phytoplankton Câ€‰:â€‰Nâ€‰:â€‰P. Biogeosciences, 2020, 17, 2939-2954.	1.3	32
30	Assessing change in the overturning behavior of the Laurentian Great Lakes using remotely sensed lake surface water temperatures. Remote Sensing of Environment, 2019, 235, 111427.	4.6	31
31	Persistence of Gulf Stream separation during the Last Glacial Period: Implications for current separation theories. Journal of Geophysical Research, 2003, 108, .	3.3	29
32	Response of deepâ€sea CaCO₃ sedimentation to Atlantic meridional overturning circulation shutdown. Journal of Geophysical Research, 2008, 113, .	3.3	29
33	A three-dimensional model of Lake Superior with ice and biogeochemistry. Journal of Great Lakes Research, 2012, 38, 61-71.	0.8	29
34	Characterizing post-industrial changes in the ocean carbon cycle in an Earth system model. Tellus, Series B: Chemical and Physical Meteorology, 2022, 62, 296.	0.8	28
35	Causal mechanisms of the deep chlorophyll maximum in Lake Superior: A numerical modeling investigation. Journal of Great Lakes Research, 2012, 38, 504-513.	0.8	28
36	Effect of temperature-dependent organic carbon decay on atmospheric pCO2. Journal of Geophysical Research, 2007, 112, .	3.3	27

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37	Different mechanisms of silicic acid leakage and their biogeochemical consequences. Paleoceanography, 2014, 29, 238-254.	3.0	25
38	Effects of sea ice on atmospheric pCO₂: A revised view and implications for glacial and future climates. Journal of Geophysical Research, 2010, 115, .	3.3	24
39	An iceberg drift and decay model to compute the ice-rafted debris and iceberg meltwater flux: Application to the interglacial North Atlantic. Paleoceanography, 1996, 11, 729-742.	3.0	22
40	MESMO 2: a mechanistic marine silica cycle and coupling to a simple terrestrial scheme. Geoscientific Model Development, 2013, 6, 477-494.	1.3	21
41	Carbon Export Buffering and CO₂ Drawdown by Flexible Phytoplankton C:N:P Under Glacial Conditions. Paleoceanography and Paleoclimatology, 2020, 35, e2019PA003823.	1.3	21
42	Small eddies observed in Lake Superior using SAR and sea surface temperature imagery. Journal of Great Lakes Research, 2012, 38, 786-797.	0.8	20
43	The role of shelf nutrients on glacialâ€interglacial CO₂: A negative feedback. Global Biogeochemical Cycles, 2012, 26, .	1.9	16
44	The changing ocean and freshwater CO2 system. Fish Physiology, 2019, 37, 1-32.	0.2	16
45	Modeled Glacial North Atlantic ice-rafted debris pattern and its sensitivity to various boundary conditions. Paleoceanography, 1997, 12, 271-280.	3.0	15
46	Marine phytoplankton resilience may moderate oligotrophic ecosystem responses and biogeochemical feedbacks to climate change. Limnology and Oceanography, 2022, 67, .	1.6	15
47	Climate and carbon cycle changes under the overshoot scenario. Global and Planetary Change, 2008, 62, 164-172.	1.6	14
48	Stability of Marine Organic Matter Respiration Stoichiometry. Geophysical Research Letters, 2020, 47, e2019GL085564.	1.5	13
49	Contrasting Impacts of the South Pacific Split Jet and the Southern Annular Mode Modulation on Southern Ocean Circulation and Biogeochemistry. Paleoceanography and Paleoclimatology, 2018, 33, 2-20.	1.3	10
50	Ventilation and dissolved oxygen cycle in L ake S uperior: Insights from a numerical model. Geochemistry, Geophysics, Geosystems, 2015, 16, 3097-3110.	1.0	9
51	Toward Determining the Spatio-Temporal Variability of Upper-Ocean Ecosystem Stoichiometry From Satellite Remote Sensing. Frontiers in Marine Science, 2020, 7, .	1.2	9
52	Influence of export rain ratio changes on atmospheric CO2 and sedimentary calcite preservation. Journal of Oceanography, 2009, 65, 209-221.	0.7	8
53	Linkage of deep sea rapid acidification process and extinction of benthic foraminifera in the deep sea at the <scp>P</scp>aleocene/<scp>E</scp>ocene transition. Island Arc, 2015, 24, 301-316.	0.5	7
54	Effects of incorporating age-specific traits of zooplankton into a marine ecosystem model. Ecological Modelling, 2018, 368, 257-264.	1.2	7

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55	Climate projection of Lake Superior under a future warming scenario. Journal of Limnology, 2019, 78, .	0.3	7
56	Model simulations of carbon sequestration in the northwest Pacific by patch fertilization. Journal of Oceanography, 2006, 62, 887-902.	0.7	6
57	Modeling nearshore-offshore exchange in Lake Superior. PLoS ONE, 2018, 13, e0193183.	1.1	6
58	Model Simulations of Carbon Sequestration in the Northwest Pacific by Direct Injection. Journal of Oceanography, 2005, 61, 747-760.	0.7	5
59	Decoupled Response of Ocean Acidification to Variations in Climate Sensitivity. Journal of Climate, 2013, 26, 1764-1771.	1.2	5
60	MESMO 3: Flexible phytoplankton stoichiometry and refractory dissolved organic matter. Geoscientific Model Development, 2021, 14, 2265-2288.	1.3	4
61	Shifts in regional production as a driver of future global ocean production stoichiometry. Environmental Research Letters, 2020, 15, 124027.	2.2	4
62	Can deep ocean carbonate preservation history inferred from atmospheric pCO2 account for 14C and %CaCO3 profiles on the Ontongâ€“Java Plateau?. Earth and Planetary Science Letters, 2001, 192, 319-329.	1.8	3
63	Paleoceanography of the northwestern Pacific during the Albian. Palaeogeography, Palaeoclimatology, Palaeoecology, 2007, 254, 477-491.	1.0	3
64	Tantalizing evidence for the glacial North Atlantic bottom water. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 2794-2796.	3.3	3
65	Drawdown of Atmospheric pCO₂ Via Variable Particle Flux Stoichiometry in the Ocean Twilight Zone. Geophysical Research Letters, 2021, 48, e2021GL094924.	1.5	2
66	Sensitivity of Steady State, Deep Ocean Dissolved Organic Carbon to Surface Boundary Conditions. Global Biogeochemical Cycles, 2022, 36, .	1.9	2
67	Thank You to Our 2019 Reviewers. Global Biogeochemical Cycles, 2020, 34, e2020GB006628.	1.9	0
68	Thank You to Our 2020 Reviewers. Global Biogeochemical Cycles, 2021, 35, e2021GB006998.	1.9	0
69	Appreciating GBC Reviewers. Global Biogeochemical Cycles, 2022, 36, .	1.9	0