Yannick Donnadieu

List of Publications by Year
in descending order

103 papers	5,928 citations	71061 41 h-index	79644 73 g-index
141 all docs	141 docs citations	141 times ranked	5135 citing authors

#	Article	IF	Citations
1	Snowball Earth climate dynamics and Cryogenian geology-geobiology. Science Advances, 2017, 3, e1600983.	4.7	424
2	Asian monsoons in a late Eocene greenhouse world. Nature, 2014, 513, 501-506.	13.7	386
3	A â€˜snowball Earthâ€™ climate triggered by continental break-up through changes in runoff. Nature, 2004, 428, 303-306.	13.7	292
4	High sensitivity of the continental-weathering carbon dioxide sink to future climate change. Nature Climate Change, 2012, 2, 346-349.	8.1	196
5	The tectonic history of Drake Passage and its possible impacts on global climate. Earth and Planetary Science Letters, 2009, 279, 197-211.	1.8	177
6	The Sturtian â€˜snowballâ€™ glaciation: fire and ice. Earth and Planetary Science Letters, 2003, 211, 1-12.	1.8	160
7	Revised paleoaltimetry data show low Tibetan Plateau elevation during the Eocene. Science, 2019, 363, .	6.0	155
8	Nutrients as the dominant control on the spread of anoxia and euxinia across the Cenomanianâ€Turonian oceanic anoxic event (OAE2): Modelâ€data comparison. Paleoceanography, 2012, 27, .	3.0	153
9	Onset and ending of the late Palaeozoic ice age triggered by tectonically paced rock weathering. Nature Geoscience, 2017, 10, 382-386.	5.4	134
10	The role of palaeogeography in the Phanerozoic history of atmospheric CO2 and climate. Earth-Science Reviews, 2014, 128, 122-138.	4.0	125
11	Modelling the primary control of paleogeography on Cretaceous climate. Earth and Planetary Science Letters, 2006, 248, 426-437.	1.8	122
12	Error analysis of CO2 and O2 estimates from the long-term geochemical model GEOCARBSULF. Numerische Mathematik, 2014, 314, 1259-1283.	0.7	119
13	A GEOCLIM simulation of climatic and biogeochemical consequences of Pangea breakup. Geochemistry, Geophysics, Geosystems, 2006, 7, n/a-n/a.	1.0	114
14	The snowball Earth aftermath: Exploring the limits of continental weathering processes. Earth and Planetary Science Letters, 2009, 277, 453-463.	1.8	105
15	Modeling evidences for global warming, Arctic seawater freshening, and sluggish oceanic circulation during the Early Toarcian anoxic event. Paleoceanography, 2012, 27, .	3.0	104
16	Is there a conflict between the Neoproterozoic glacial deposits and the snowball Earth interpretation: an improved understanding with numerical modeling. Earth and Planetary Science Letters, 2003, 208, 101-112.	1.8	98
17	Modeling the early Paleozoic long-term climatic trend. Bulletin of the Geological Society of America, 2011, 123, 1181-1192.	1.6	97
18	The climate change caused by the land plant invasion in the Devonian. Earth and Planetary Science Letters, 2011, 310, 203-212.	1.8	92

#	Article	IF	Citations
19	The DeepMIP contribution to PMIP4: experimental design for model simulations of the EECO, PETM, and pre-PETM (version 1.0). Geoscientific Model Development, 2017, 10, 889-901.	1.3	90
20	Fish tooth Î´18O revising Late Cretaceous meridional upper ocean water temperature gradients. Geology, 2007, 35, 107.	2.0	88
21	Tectonic-driven climate change and the diversification of angiosperms. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 14066-14070.	3.3	85
22	Consequences of shoaling of the Central American Seaway determined from modeling Nd isotopes. Paleoceanography, 2014, 29, 176-189.	3.0	83
23	Scenario for the evolution of atmospheric pCO2 during a snowball Earth. Geology, 2008, 36, 47.	2.0	82
24	Glacial onset predated Late Ordovician climate cooling. Paleoceanography, 2016, 31, 800-821.	3.0	79
25	Cenozoic evolution of the steppe-desert biome in Central Asia. Science Advances, 2020, 6, .	4.7	79
26	A better-ventilated ocean triggered by Late Cretaceous changes in continental configuration. Nature Communications, 2016, 7, 10316.	5.8	73
27	High potential for weathering and climate effects of non-vascular vegetation in the Late Ordovician. Nature Communications, 2016, 7, 12113.	5.8	72
28	DeepMIP: model intercomparison of early Eocene climatic optimum (EECO) large-scale climate features and comparison with proxy data. Climate of the Past, 2021, 17, 203-227.	1.3	71
29	The respective role of atmospheric carbon dioxide and orbital parameters on ice sheet evolution at the Eocene-Oligocene transition. Paleoceanography, 2014, 29, 810-823.	3.0	67
30	An early Cambrian greenhouse climate. Science Advances, 2018, 4, eaar5690.	4.7	67
31	Causal or casual link between the rise of nannoplankton calcification and a tectonically-driven massive decrease in Late Triassic atmospheric CO2?. Earth and Planetary Science Letters, 2008, 267, 247-255.	1.8	63
32	A mechanism for brief glacial episodes in the Mesozoic greenhouse. Paleoceanography, 2011, 26, .	3.0	61
33	High dependence of Ordovician ocean surface circulation on atmospheric CO2 levels. Palaeogeography, Palaeoclimatology, Palaeoecology, 2016, 458, 39-51.	1.0	61
34	Orbitally forced ice sheet fluctuations during the Marinoan Snowball Earth glaciation. Nature Geoscience, 2015, 8, 704-707.	5.4	59
35	Ocean Circulation in the Toarcian (Early Jurassic): A Key Control on Deoxygenation and Carbon Burial on the European Shelf. Paleoceanography and Paleoclimatology, 2018, 33, 994-1012.	1.3	59
36	Reconstructing first-order changes in sea level during the Phanerozoic and Neoproterozoic using strontium isotopes. Gondwana Research, 2017, 44, 22-34.	3.0	57

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37	IPSL-CM5A2 â€“ an Earth system model designed for multi-millennial climate simulations. Geoscientific Model Development, 2020, 13, 3011-3053.	1.3	55
38	Palaeogeographic regulation of glacial events during the Cretaceous supergreenhouse. Nature Communications, 2016, 7, 12771.	5.8	54
39	Simulating Miocene Warmth: Insights From an Opportunistic Multiâ€Model Ensemble (MioMIP1). Paleoceanography and Paleoclimatology, 2021, 36, e2020PA004054.	1.3	52
40	Exploring the climatic impact of the continental vegetation on the Mezosoic atmospheric CO₂ and climate history. Climate of the Past, 2009, 5, 85-96.	1.3	47
41	The impact of atmospheric and oceanic heat transports on the sea-ice-albedo instability during the Neoproterozoic. Climate Dynamics, 2004, 22, 293-306.	1.7	44
42	Effect of the Ordovician paleogeography on the (in)stability of the climate. Climate of the Past, 2014, 10, 2053-2066.	1.3	44
43	Shield effect on continental weathering: Implication for climatic evolution of the Earth at the geological timescale. Geoderma, 2008, 145, 439-448.	2.3	43
44	Is high obliquity a plausible cause for Neoproterozoic glaciations?. Geophysical Research Letters, 2002, 29, 42-1-42-4.	1.5	42
45	Toward the snowball earth deglaciationâ€¦. Climate Dynamics, 2010, 35, 285-297.	1.7	42
46	Deciphering the role of southern gateways and carbon dioxide on the onset of the Antarctic Circumpolar Current. Paleoceanography, 2012, 27, .	3.0	42
47	The climatic significance of Late Ordovicianâ€early Silurian black shales. Paleoceanography, 2017, 32, 397-423.	3.0	42
48	Extinction intensity during Ordovician and Cenozoic glaciations explained by cooling and palaeogeography. Nature Geoscience, 2020, 13, 65-70.	5.4	39
49	Impacts of Tibetan Plateau uplift on atmospheric dynamics and associated precipitation <i>Î´</i>¹⁸O. Climate of the Past, 2016, 12, 1401-1420.	1.3	38
50	Paleogeographic forcing of the strontium isotopic cycle in the Neoproterozoic. Gondwana Research, 2017, 42, 151-162.	3.0	38
51	Marine carbonate factories: a global model of carbonate platform distribution. International Journal of Earth Sciences, 2019, 108, 1773-1792.	0.9	37
52	The origin of Asian monsoons: a modelling perspective. Climate of the Past, 2020, 16, 847-865.	1.3	37
53	Effect of changes in Î´18O content of the surface ocean on estimated sea surface temperatures in past warm climate. Paleoceanography, 2006, 21, n/a-n/a.	3.0	36
54	Coupled modeling of global carbon cycle and climate in the Neoproterozoic: links between Rodinia breakup and major glaciations. Comptes Rendus - Geoscience, 2007, 339, 212-222.	0.4	35

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55	The Aptian evaporites of the South Atlantic: a climatic paradox?. Climate of the Past, 2012, 8, 1047-1058.	1.3	35
56	Investigating plausible mechanisms to trigger a deglaciation from a hard snowball Earth. Comptes Rendus - Geoscience, 2007, 339, 274-287.	0.4	33
57	Quantifying the Effect of the Drake Passage Opening on the Eocene Ocean. Paleoceanography and Paleoclimatology, 2020, 35, e2020PA003889.	1.3	33
58	Spatial continuous integration of Phanerozoic global biogeochemistry and climate. Gondwana Research, 2021, 100, 73-86.	3.0	31
59	A geochemical modelling study of the evolution of the chemical composition of seawater linked to a "snowball" glaciation. Biogeosciences, 2008, 5, 253-267.	1.3	30
60	Investigating boron isotopes in a middle Jurassic micritic sequence: Primary vs. diagenetic signal. Chemical Geology, 2010, 275, 117-126.	1.4	30
61	Tectonic control of continental weathering, atmospheric CO2, and climate over Phanerozoic times. Comptes Rendus - Geoscience, 2012, 344, 652-662.	0.4	30
62	Evolution of neodymium isotopic signature of seawater during the Late Cretaceous: Implications for intermediate and deep circulation. Gondwana Research, 2016, 36, 503-522.	3.0	28
63	The influence of orography on modern ocean circulation. Climate Dynamics, 2018, 50, 1277-1289.	1.7	28
64	Was the Antarctic glaciation delayed by a high degassing rate during the early Cenozoic?. Earth and Planetary Science Letters, 2013, 371-372, 203-211.	1.8	27
65	Cyclic evolution of phytoplankton forced by changes in tropical seasonality. Nature, 2022, 601, 79-84.	13.7	26
66	Orbital variations as a major driver of climate and biome distribution during the greenhouse to icehouse transition. Science Advances, 2021, 7, eabh2819.	4.7	22
67	Neogene South Asian monsoon rainfall and wind histories diverged due to topographic effects. Nature Geoscience, 2022, 15, 314-319.	5.4	22
68	Links between CO₂, glaciation and water flow: reconciling the Cenozoic history of the Antarctic Circumpolar Current. Climate of the Past, 2014, 10, 1957-1966.	1.3	21
69	GEOCLIM <i>reloaded</i> (v 1.0): a new coupled earth system model for past climate change. Geoscientific Model Development, 2011, 4, 451-481.	1.3	20
70	Growth of subtropical forests in Miocene Europe: The roles of carbon dioxide and Antarctic ice volume. Geology, 2012, 40, 567-570.	2.0	20
71	Evolution of the neodymium isotopic signature of neritic seawater on a northwestern Pacific margin: new constrains on possible end-members for the composition of deep-water masses in the Late Cretaceous ocean. Chemical Geology, 2013, 356, 160-170.	1.4	20
72	Investigating the Paleoproterozoic glaciations with 3-D climate modeling. Earth and Planetary Science Letters, 2014, 395, 71-80.	1.8	20

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73	Quantifying the paleogeographic driver of Cretaceous carbonate platform development using paleoecological niche modeling. Palaeogeography, Palaeoclimatology, Palaeoecology, 2019, 514, 222-232.	1.0	20
74	Did high Neo-Tethys subduction rates contribute to early Cenozoic warming?. Climate of the Past, 2015, 11, 1751-1767.	1.3	19
75	Stripping back the modern to reveal the Cenomanianâ€“Turonian climate and temperature gradient underneath. Climate of the Past, 2020, 16, 953-971.	1.3	19
76	Meridional Contrasts in Productivity Changes Driven by the Opening of Drake Passage. Paleoceanography and Paleoclimatology, 2018, 33, 302-317.	1.3	18
77	Possible patterns of marine primary productivity during the Great Ordovician Biodiversification Event. Lethaia, 2018, 51, 187-197.	0.6	17
78	Quantitative comparison of geological data and model simulations constrains early Cambrian geography and climate. Nature Communications, 2021, 12, 3868.	5.8	15
79	Investigating Ocean Deoxygenation During the PETM Through the Cr Isotopic Signature of Foraminifera. Paleoceanography and Paleoclimatology, 2019, 34, 917-929.	1.3	14
80	Geochemical consequences of intense pulse-like degassing during the onset of the Central Atlantic Magmatic Province. Palaeogeography, Palaeoclimatology, Palaeoecology, 2016, 441, 74-82.	1.0	13
81	A sink- or a source-driven carbon cycle at the geological timescale? Relative importance of palaeogeography versus solid Earth degassing rate in the Phanerozoic climatic evolution. Geological Magazine, 2019, 156, 355-365.	0.9	13
82	Early Eocene vigorous ocean overturning and its contribution to a warm Southern Ocean. Climate of the Past, 2020, 16, 1263-1283.	1.3	13
83	Les glaciations du ProtÃ©rozoÄ±Ì€que. Comptes Rendus - Geoscience, 2004, 336, 639-646.	0.4	12
84	A 100 Myr history of the carbon cycle based on the 400 kyr cycle in marine Î´¹³C benthic records. Paleoceanography, 2014, 29, 1249-1255.	3.0	12
85	Carbonate platform production during the Cretaceous. Bulletin of the Geological Society of America, 2020, 132, 2606-2610.	1.6	11
86	Early Eocene Ocean Meridional Overturning Circulation: The Roles of Atmospheric Forcing and Strait Geometry. Paleoceanography and Paleoclimatology, 2022, 37, .	1.3	11
87	Assessing Volcanic Controls on Miocene Climate Change. Geophysical Research Letters, 2022, 49, e2021GL096519.	1.5	10
88	Evolution of continental temperature seasonality from the Eocene greenhouse to the Oligocene icehouse â€“a modelâ€“data comparison. Climate of the Past, 2022, 18, 341-362.	1.3	10
89	The faint young Sun problem revisited with a 3-D climateâ€“carbon model â€“ Part 1. Climate of the Past, 2014, 10, 697-713.	1.3	9
90	Exploring the Impact of Cenomanian Paleogeography and Marine Gateways on Oceanic Oxygen. Paleoceanography and Paleoclimatology, 2021, 36, e2020PA004202.	1.3	9

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91	Impact of the hydrological cycle on past climate changes: three illustrations at different time scales. Comptes Rendus - Geoscience, 2005, 337, 125-137.	0.4	8
92	Climatic plant power. Nature, 2009, 460, 40-41.	13.7	8
93	Some Illustrations of Large Tectonically Driven Climate Changes in Earth History. Tectonics, 2019, 38, 4454-4464.	1.3	7
94	Carbon cycling and snowball Earth. Nature, 2008, 456, E8-E8.	13.7	6
95	Global Tectonic Setting and Climate of the Late Neoproterozoic: A Climate-Geochemical Coupled Study. Geophysical Monograph Series, 0, , 79-89.	0.1	5
96	The complex response of continental silicate rock weathering to the colonization of the continents by vascular plants in the Devonian. Numerische Mathematik, 2022, 322, 461-492.	0.7	5
97	Numerical evidence for thermohaline circulation reversals during the Maastrichtian. Geochemistry, Geophysics, Geosystems, 2005, 6, n/a-n/a.	1.0	4
98	Bias in the paleoceanographic time series: Tests with a numerical model of U, Corg, and Al burial. Paleoceanography, 2002, 17, 6-1-6-11.	3.0	3
99	Neoproterozoic Atmospheres and Glaciation. , 2014, , 217-229.		3
100	Response to Comment on â€œRevised paleoaltimetry data show low Tibetan Plateau elevation during the Eoceneâ€. Science, 2019, 365, .	6.0	3
101	African Hydroclimate During the Early Eocene From the DeepMIP Simulations. Paleoceanography and Paleoclimatology, 2022, 37, .	1.3	3
102	Chapter 10 Modelling the Snowball Earth. Geological Society Memoir, 2011, 36, 151-161.	0.9	1
103	Simulation of Arctic sea ice within the DeepMIP Eocene ensemble: Thresholds, seasonality and factors controlling sea ice development. Global and Planetary Change, 2022, 214, 103848.	1.6	1