

# Muriel Andreani

## List of Publications by Year in descending order

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56  
papers

5,036  
citations

136740

32  
h-index

155451

55  
g-index

56  
all docs

56  
docs citations

56  
times ranked

5224  
citing authors

#	ARTICLE	IF	CITATIONS
1	A Bacterial Method for the Nitrogen Isotopic Analysis of Nitrate in Seawater and Freshwater. <i>Analytical Chemistry</i> , 2001, 73, 4145-4153.	3.2	1,493
2	Oceanic core complexes and crustal accretion at slow-spreading ridges. <i>Geology</i> , 2007, 35, 623.	2.0	302
3	Continuous exhumation of mantle-derived rocks at the Southwest Indian Ridge for 11 million years. <i>Nature Geoscience</i> , 2013, 6, 314-320.	5.4	224
4	Experimental Study of Carbon Sequestration Reactions Controlled by the Percolation of CO <sub>2</sub> -Rich Brine through Peridotites. <i>Environmental Science &amp; Technology</i> , 2009, 43, 1226-1231.	4.6	197
5	Dynamic control on serpentine crystallization in veins: Constraints on hydration processes in oceanic peridotites. <i>Geochemistry, Geophysics, Geosystems</i> , 2007, 8, n/a-n/a.	1.0	187
6	Abiotic synthesis of amino acids in the recesses of the oceanic lithosphere. <i>Nature</i> , 2018, 564, 59-63.	13.7	170
7	In situ characterization of serpentinites from forearc mantle wedges: Timing of serpentinization and behavior of fluid-mobile elements in subduction zones. <i>Chemical Geology</i> , 2010, 269, 262-277.	1.4	152
8	EXAFS study of iron redox state in serpentine during oceanic serpentinization. <i>Lithos</i> , 2013, 178, 70-83.	0.6	133
9	Serpentinites act as sponges for fluid-mobile elements in abyssal and subduction zone environments. <i>Terra Nova</i> , 2011, 23, 171-178.	0.9	125
10	Drilling constraints on lithospheric accretion and evolution at Atlantis Massif, Mid-Atlantic Ridge 30°N. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	112
11	Relationships between the microstructural evolution and the rheology of talc at elevated pressures and temperatures. <i>Earth and Planetary Science Letters</i> , 2008, 268, 463-475.	1.8	105
12	CO <sub>2</sub> percolation experiment through chlorite/zeolite-rich sandstone (Pretty Hill Formation – Otway) Tj ETQq0 0 Q rgBT /Overlock 10 T	1.4	97
13	Behavior of fluid-mobile elements in serpentines from abyssal to subduction environments: Examples from Cuba and Dominican Republic. <i>Chemical Geology</i> , 2012, 312-313, 93-117.	1.4	94
14	Tectonic structure, evolution, and the nature of oceanic core complexes and their detachment fault zones (13°20'N and 13°30'N, Mid Atlantic Ridge). <i>Geochemistry, Geophysics, Geosystems</i> , 2017, 18, 1451-1482.	1.0	94
15	Evolution of Fe redox state in serpentine during subduction. <i>Earth and Planetary Science Letters</i> , 2014, 400, 206-218.	1.8	89
16	Experimental Perspectives of Mineral Dissolution and Precipitation due to Carbon Dioxide-Water-Rock Interactions. <i>Reviews in Mineralogy and Geochemistry</i> , 2013, 77, 153-188.	2.2	84
17	Three steps of serpentinization in an eclogitized oceanic serpentinization front (Lanzo Massif – Tj ETQq1 1 0.784314 rgBT /Overlock 76	1.6	76
18	Redox state of iron during high-pressure serpentinite dehydration. <i>Contributions To Mineralogy and Petrology</i> , 2015, 169, 1.	1.2	76

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19	Changes in seal capacity of fractured claystone caprocks induced by dissolved and gaseous CO <sub>2</sub> seepage. <i>Geophysical Research Letters</i> , 2008, 35, .	1.5	72
20	Occurrence, composition and growth of polyhedral serpentine. <i>European Journal of Mineralogy</i> , 2008, 20, 159-171.	0.4	71
21	Serpentinization and Fluid Pathways in Tectonically Exhumed Peridotites from the Southwest Indian Ridge (62-65°E). <i>Journal of Petrology</i> , 2015, 56, 703-734.	1.1	70
22	Tectonic structure, lithology, and hydrothermal signature of the Rainbow massif (Mid-Atlantic Ridge) Tj ETQq0 0 0 rgBT /Overlock 10 Tf .	1.0	69
23	F, Cl and S input via serpentinite in subduction zones: implications for the nature of the fluid released at depth. <i>Terra Nova</i> , 2014, 26, 96-101.	0.9	67
24	Aluminum speeds up the hydrothermal alteration of olivine. <i>American Mineralogist</i> , 2013, 98, 1738-1744.	0.9	60
25	Clay clast aggregates in gouges: New textural evidence for seismic faulting. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	59
26	Trace element behavior during serpentinization/de-serpentinization of an eclogitized oceanic lithosphere: A LA-ICPMS study of the Lanzo ultramafic massif (Western Alps). <i>Chemical Geology</i> , 2013, 357, 117-133.	1.4	59
27	A microstructural study of a "crack-seal" type serpentine vein using SEM and TEM techniques. <i>European Journal of Mineralogy</i> , 2004, 16, 585-595.	0.4	57
28	Incipient hydration of mantle lithosphere at ridges: A reactive-percolation experiment. <i>Earth and Planetary Science Letters</i> , 2013, 371-372, 92-102.	1.8	50
29	Development of schistosity by dissolution and crystallization in a Californian serpentinite gouge. <i>Journal of Structural Geology</i> , 2005, 27, 2256-2267.	1.0	49
30	Magnetic signatures of serpentinization at ophiolite complexes. <i>Geochemistry, Geophysics, Geosystems</i> , 2016, 17, 2969-2986.	1.0	44
31	CO <sub>2</sub> geological storage in olivine rich basaltic aquifers: New insights from reactive-percolation experiments. <i>Applied Geochemistry</i> , 2015, 52, 174-190.	1.4	39
32	Assessing sulfur redox state and distribution in abyssal serpentinites using XANES spectroscopy. <i>Earth and Planetary Science Letters</i> , 2017, 466, 1-11.	1.8	36
33	Carbonate mineralization in percolated olivine aggregates: Linking effects of crystallographic orientation and fluid flow. <i>American Mineralogist</i> , 2015, 100, 474-482.	0.9	30
34	Multi-scale characterization of the incipient carbonation of peridotite. <i>Chemical Geology</i> , 2018, 476, 150-160.	1.4	29
35	Ore component mobility, transport and mineralization at mid-oceanic ridges: A stable isotopes (Zn, Cu) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf .	1.8	29
36	Formation of clay minerals and exhumation of lower crustal rocks at Atlantis Massif, Mid-Atlantic Ridge. <i>Geochemistry, Geophysics, Geosystems</i> , 2008, 9, .	1.0	27

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37	Deep alteration between Hellas and Isidis Basins. <i>Icarus</i> , 2015, 260, 141-160.	1.1	27
38	Crack-seal patterns: records of uncorrelated stress release variations in crustal rocks. <i>Geological Society Special Publication</i> , 2005, 243, 67-79.	0.8	25
39	Onion morphology and microstructure of polyhedral serpentine. <i>American Mineralogist</i> , 2007, 92, 687-690.	0.9	25
40	A Review of H <sub>2</sub> , CH <sub>4</sub> , and Hydrocarbon Formation in Experimental Serpentinization Using Network Analysis. <i>Frontiers in Earth Science</i> , 2020, 8, .	0.8	24
41	Deformation associated to exhumation of serpentinized mantle rocks in a fossil Ocean Continent Transition: The Totalp unit in SE Switzerland. <i>Lithos</i> , 2013, 175-176, 255-271.	0.6	23
42	First direct observation of coseismic slip and seafloor rupture along a submarine normal fault and implications for fault slip history. <i>Earth and Planetary Science Letters</i> , 2016, 450, 96-107.	1.8	21
43	Pervasive silicification and hanging wall overplating along the 13°20'N oceanic detachment fault (Mid-Atlantic Ridge). <i>Geochemistry, Geophysics, Geosystems</i> , 2017, 18, 2028-2053.	1.0	21
44	On the role of phyllosilicates on fault lubrication: Insight from micro- and nanostructural investigations on talc friction experiments. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	20
45	The Kallisti Limnes, carbon dioxide-accumulating subsea pools. <i>Scientific Reports</i> , 2015, 5, 12152.	1.6	18
46	Contrasted effect of aluminum on the serpentinization rate of olivine and orthopyroxene under hydrothermal conditions. <i>Chemical Geology</i> , 2016, 441, 256-264.	1.4	18
47	Antigorite crystallization during oceanic retrograde serpentinization of abyssal peridotites. <i>Contributions To Mineralogy and Petrology</i> , 2019, 174, 1.	1.2	18
48	New Perspectives on Abiotic Organic Synthesis and Processing during Hydrothermal Alteration of the Oceanic Lithosphere. , 2019, , 447-479.		15
49	Pulsated Global Hydrogen and Methane Flux at Mid-Ocean Ridges Driven by Pangea Breakup. <i>Geochemistry, Geophysics, Geosystems</i> , 2020, 21, e2019GC008869.	1.0	15
50	Mineralogy, geochemistry and occurrences of fougérite in a modern hydrothermal system and its implications for the origin of life. <i>Earth-Science Reviews</i> , 2022, 225, 103910.	4.0	11
51	Atomic modelling of crystal/complex fluid/crystal contacts—Part II. Simulating AFM tests via the GenMol code for investigating the impact of CO <sub>2</sub> storage on kaolinite/brine/kaolinite adhesion. <i>Journal of Crystal Growth</i> , 2010, 312, 3308-3315.	0.7	8
52	Oceanographic Signatures and Pressure Monitoring of Seafloor Vertical Deformation in Near-coastal, Shallow Water Areas: A Case Study from Santorini Caldera. <i>Marine Geodesy</i> , 2016, 39, 401-421.	0.9	5
53	Fluid Circulation Along an Oceanic Detachment Fault: Insights From Fluid Inclusions in Silicified Brecciated Fault Rocks (Mid-Atlantic Ridge at 13°20'N). <i>Geochemistry, Geophysics, Geosystems</i> , 2021, 22, .	1.0	5
54	Deep oceanic submarine fieldwork with undergraduate students: an immersive experience with the Minerve software. <i>Solid Earth</i> , 2021, 12, 2789-2802.	1.2	5

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55	Dataset for H <sub>2</sub> , CH <sub>4</sub> and organic compounds formation during experimental serpentinization. <i>Geoscience Data Journal</i> , 2021, 8, 90-100.	1.8	4
56	Deformation-enhanced diagenesis and bacterial proliferation in the Nankai accretionary prism. <i>Solid Earth</i> , 2021, 12, 2067-2085.	1.2	1