

Maria Dittrich

List of Publications by Year in descending order

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65
papers

3,009
citations

147801

31
h-index

161849

54
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69
all docs

69
docs citations

69
times ranked

3221
citing authors

#	ARTICLE	IF	CITATIONS
1	Examining the Ability of Aerobic Halophilic Heterotrophic Microbial Consortia to Replace Ca by Mg in Different CaCO ₃ Precursors. <i>Frontiers in Microbiology</i> , 2022, 13, 791286.	3.5	2
2	Utility of far-field effects from tip-assisted Raman spectroscopy for the detection of a monolayer of diblock copolymer reverse micelles for nanolithography. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 11065-11074.	2.8	3
3	Modern dolomite formation caused by seasonal cycling of oxygenic phototrophs and anoxygenic phototrophs in a hypersaline sabkha. <i>Scientific Reports</i> , 2021, 11, 4170.	3.3	30
4	Dolomite genesis in bioturbated marine zones of an early-middle Miocene coastal mud volcano outcrop (Kuwait). <i>Scientific Reports</i> , 2021, 11, 6636.	3.3	6
5	Environmentally friendly antibiofilm strategy based on cationized phytyglycogen nanoparticles. <i>Colloids and Surfaces B: Biointerfaces</i> , 2021, 207, 111975.	5.0	1
6	Attachment on mortar surfaces by cyanobacterium <i>Gloeocapsa</i> PCC 73106 and sequestration of CO ₂ by microbially induced calcium carbonate. <i>MicrobiologyOpen</i> , 2021, 10, e1243.	3.0	5
7	Systematic laboratory approach to produce Mg-rich carbonates at low temperature. <i>RSC Advances</i> , 2021, 11, 37029-37039.	3.6	8
8	Geochemical controls on internal phosphorus loading in Lake of the Woods. <i>Chemical Geology</i> , 2020, 558, 119873.	3.3	16
9	Speciation and bioavailability of particulate phosphorus in forested karst watersheds of southern Ontario during rain events. <i>Journal of Great Lakes Research</i> , 2020, 46, 824-838.	1.9	8
10	Scientistsâ€™ Warning to Humanity: Rapid degradation of the worldâ€™s large lakes. <i>Journal of Great Lakes Research</i> , 2020, 46, 686-702.	1.9	140
11	Organomineralization of proto-dolomite by a phototrophic microbial mat extracellular polymeric substances: Control of crystal size and its implication for carbonate depositional systems. <i>Numerische Mathematik</i> , 2020, 320, 72-95.	1.4	6
12	The role of chitin-rich skeletal organic matrix on the crystallization of calcium carbonate in the crustose coralline alga <i>Leptophytum foecundum</i> . <i>Scientific Reports</i> , 2019, 9, 11869.	3.3	28
13	Proto-dolomite formation in microbial consortia dominated by <i>Halomonas</i> strains. <i>Extremophiles</i> , 2019, 23, 765-781.	2.3	9
14	Characterization of the extracellular polymeric substances (EPS) of <i>Virgibacillus</i> strains capable of mediating the formation of high Mg-calcite and protodolomite. <i>Marine Chemistry</i> , 2019, 216, 103693.	2.3	31
15	Reduction of industrial iron pollution promotes phosphorus internal loading in eutrophic Hamilton Harbour, Lake Ontario, Canada. <i>Environmental Pollution</i> , 2019, 252, 697-705.	7.5	11
16	Biogeochemical mechanisms controlling phosphorus diagenesis and internal loading in a remediated hard water eutrophic embayment. <i>Chemical Geology</i> , 2019, 514, 122-137.	3.3	52
17	Picoplankton accumulate and recycle polyphosphate to support high primary productivity in coastal Lake Ontario. <i>Scientific Reports</i> , 2019, 9, 19563.	3.3	16
18	Dynamic polyphosphate metabolism in cyanobacteria responding to phosphorus availability. <i>Environmental Microbiology</i> , 2019, 21, 572-583.	3.8	38

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19	Microbial community composition and dolomite formation in the hypersaline microbial mats of the Khor Al-Adaid sabkhas, Qatar. <i>Extremophiles</i> , 2019, 23, 201-218.	2.3	37
20	Effects of Phosphorus in Growth Media on Biomineralization and Cell Surface Properties of Marine Cyanobacteria <i>Synechococcus</i> . <i>Geosciences (Switzerland)</i> , 2018, 8, 471.	2.2	15
21	Phosphorus retention and internal loading in the Bay of Quinte, Lake Ontario, using diagenetic modelling. <i>Science of the Total Environment</i> , 2018, 636, 39-51.	8.0	30
22	Assessment of cyanobacterial species for carbonate precipitation on mortar surface under different conditions. <i>Ecological Engineering</i> , 2018, 120, 154-163.	3.6	31
23	Calcification on mortar by live and UV-killed biofilm-forming cyanobacterial <i>Gloeocapsa</i> PCC73106. <i>Construction and Building Materials</i> , 2017, 146, 43-53.	7.2	15
24	Microbial Mats from the Khor Al-Adaid Sabkha, Qatar: Morphotypes and Association with Authigenic Minerals. , 2016, , .		1
25	Carbonate Precipitation through Microbial Activities in Natural Environment, and Their Potential in Biotechnology: A Review. <i>Frontiers in Bioengineering and Biotechnology</i> , 2016, 4, 4.	4.1	411
26	Internal loading of phosphorus in western Lake Erie. <i>Journal of Great Lakes Research</i> , 2016, 42, 775-788.	1.9	92
27	Integration of best management practices in the Bay of Quinte watershed with the phosphorus dynamics in the receiving waterbody: What do the models predict?. <i>Aquatic Ecosystem Health and Management</i> , 2016, 19, 1-18.	0.6	22
28	Evidence for the biogenic origin of manganese-enriched layers in Lake Superior sediments. <i>Environmental Microbiology Reports</i> , 2016, 8, 179-186.	2.4	7
29	Modeling the interplay between deepwater oxygen dynamics and sediment diagenesis in a hard-water mesotrophic lake. <i>Ecological Informatics</i> , 2016, 31, 59-69.	5.2	9
30	Examination of the role of dreissenids and macrophytes in the phosphorus dynamics of Lake Simcoe, Ontario, Canada. <i>Ecological Informatics</i> , 2015, 26, 36-53.	5.2	17
31	Potential application of biomineralization by <i>Synechococcus</i> PCC8806 for concrete restoration. <i>Ecological Engineering</i> , 2015, 82, 459-468.	3.6	64
32	Geomicrobiology of Iron Layers in the Sediment of Lake Superior. <i>Aquatic Geochemistry</i> , 2015, 21, 123-140.	1.3	8
33	Evidence of microbiocoenosis in the formation of laminae in modern stromatolites. <i>Facies</i> , 2014, 60, 3-13.	1.4	25
34	2D Raman spectroscopy study of dolomite and cyanobacterial extracellular polymeric substances from Khor Al-Adaid sabkha (Qatar). <i>Journal of Raman Spectroscopy</i> , 2013, 44, 1563-1569.	2.5	35
35	Modeling of decadal scale phosphorus retention in lake sediment under varying redox conditions. <i>Ecological Modelling</i> , 2013, 251, 246-259.	2.5	57
36	Phosphorus retention in a mesotrophic lake under transient loading conditions: Insights from a sediment phosphorus binding form study. <i>Water Research</i> , 2013, 47, 1433-1447.	11.3	75

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37	CaCO ₃ biomineralization on cyanobacterial surfaces: Insights from experiments with three <i>Synechococcus</i> strains. <i>Colloids and Surfaces B: Biointerfaces</i> , 2013, 111, 600-608.	5.0	32
38	Improving the representation of internal nutrient recycling with phosphorus mass balance models: A case study in the Bay of Quinte, Ontario, Canada. <i>Ecological Modelling</i> , 2013, 256, 53-68.	2.5	45
39	Dynamics of P-binding forms in sediments of a mesotrophic hard-water lake: Insights from non-steady state reactive-transport modeling, sensitivity and identifiability analysis. <i>Chemical Geology</i> , 2013, 354, 216-232.	3.3	23
40	Can simple phosphorus mass balance models guide management decisions? A case study in the Bay of Quinte, Ontario, Canada. <i>Ecological Modelling</i> , 2013, 257, 66-79.	2.5	21
41	Fourier Transform Infrared Spectroscopy for Molecular Analysis of Microbial Cells. <i>Methods in Molecular Biology</i> , 2012, 881, 187-211.	0.9	60
42	Continuous Bayesian Network for Studying the Causal Links between Phosphorus Loading and Plankton Patterns in Lake Simcoe, Ontario, Canada. <i>Environmental Science & Technology</i> , 2012, 46, 7283-7292.	10.0	27
43	Silicon: The key element in early stages of biocalcification. <i>Journal of Structural Biology</i> , 2011, 174, 180-186.	2.8	38
44	Lake restoration by hypolimnetic Ca(OH) ₂ treatment: Impact on phosphorus sedimentation and release from sediment. <i>Science of the Total Environment</i> , 2011, 409, 1504-1515.	8.0	70
45	Calcium carbonate precipitation by cyanobacterial polysaccharides. <i>Geological Society Special Publication</i> , 2010, 336, 51-63.	1.3	56
46	Lake Malawi sediment and pore water chemistry: Proposition of a conceptual model for stratification intensification since the end of the Little Ice Age. <i>Global and Planetary Change</i> , 2010, 72, 321-330.	3.5	9
47	Lake sediments during the transient eutrophication period: Reactive-transport model and identifiability study. <i>Ecological Modelling</i> , 2009, 220, 2751-2769.	2.5	32
48	CaCO ₃ nucleation by cyanobacteria: laboratory evidence for a passive, surface-induced mechanism. <i>Geobiology</i> , 2009, 7, 324-347.	2.4	101
49	Microorganisms, mineral surfaces, and aquatic environments: Learning from the past for future progress. <i>Geobiology</i> , 2008, 6, 201-213.	2.4	12
50	Aerobic microbial dolomite at the nanometer scale: Implications for the geologic record. <i>Geology</i> , 2008, 36, 879.	4.4	213
51	Atomic force microscope (AFM) combined with the ultramicrotome: a novel device for the serial section tomography and AFM/TEM complementary structural analysis of biological and polymer samples. <i>Journal of Microscopy</i> , 2007, 226, 207-216.	1.8	66
52	Calcium adsorption and changes of the surface microtopography of cyanobacteria studied by AFM, CFM, and TEM with respect to biogenic calcite nucleation. <i>Geochemistry, Geophysics, Geosystems</i> , 2006, 7, n/a-n/a.	2.5	30
53	Influence of H ⁺ and Calcium Ions on Surface Functional Groups of <i>Synechococcus</i> PCC 7942 Cells. <i>Langmuir</i> , 2006, 22, 5435-5442.	3.5	35
54	Cell surface groups of two picocyanobacteria strains studied by zeta potential investigations, potentiometric titration, and infrared spectroscopy. <i>Journal of Colloid and Interface Science</i> , 2005, 286, 487-495.	9.4	156

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55	Living under an atomic force microscope. An optimized approach for in vivo investigations on surface alterations towards biomineral nucleation on cyanobacterial cells. <i>Geobiology</i> , 2005, 3, 179-193.	2.4	12
56	TEM-specimen preparation of cell/mineral interfaces by Focused Ion Beam milling. <i>American Mineralogist</i> , 2005, 90, 1270-1277.	1.9	61
57	The Role of Autotrophic Picocyanobacteria in Calcite Precipitation in an Oligotrophic Lake. <i>Geomicrobiology Journal</i> , 2004, 21, 45-53.	2.0	95
58	Are Picoplankton Responsible for Calcite Precipitation in Lakes?. <i>Ambio</i> , 2004, 33, 559-564.	5.5	125
59	New organic matter degradation proxies: Valid in lake systems?. <i>Limnology and Oceanography</i> , 2004, 49, 2023-2033.	3.1	39
60	Induced Calcite Precipitation by Cyanobacterium <i>Synechococcus</i> . <i>Clean - Soil, Air, Water</i> , 2003, 31, 162-169.	0.6	65
61	Influence of organic carbon decomposition on calcite dissolution in surficial sediments of a freshwater lake. <i>Water Research</i> , 2003, 37, 4524-4532.	11.3	46
62	Title is missing!. <i>Hydrobiologia</i> , 2002, 469, 49-57.	2.0	57
63	Calcite dissolution in two deep eutrophic lakes. <i>Geochimica Et Cosmochimica Acta</i> , 1999, 63, 3349-3356.	3.9	39
64	Use of GC and equilibrium calculations of CO ₂ saturation index to indicate whether freshwater bodies in north-eastern Germany are net sources or sinks for atmospheric CO ₂ . <i>Fresenius' Journal of Analytical Chemistry</i> , 1998, 361, 47-53.	1.5	42
65	A balance analysis of phosphorus elimination by artificial calcite precipitation in a stratified hardwater lake. <i>Water Research</i> , 1997, 31, 237-248.	11.3	41