Alexandra Turchyn

List of Publications by Year
in descending order

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94	4,230	94269	123241
papers	citations	37 h-index	61 g-index

105	105	105	4992
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A Contemporary Microbially Maintained Subglacial Ferrous "Ocean". Science, 2009, 324, 397-400.	6.0	243
2	Calcium isotope constraints on the end-Permian mass extinction. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 8543-8548.	3.3	215
3	Nonâ€enzymatic glycolysis and pentose phosphate pathwayâ€like reactions in a plausible <scp>A</scp>rchean ocean. Molecular Systems Biology, 2014, 10, 725.	3.2	182
4	Contribution of cyanobacterial alkane production to the ocean hydrocarbon cycle. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 13591-13596.	3.3	159
5	Coupled sulfur and oxygen isotope insight into bacterial sulfate reduction in the natural environment. Geochimica Et Cosmochimica Acta, 2013, 118, 98-117.	1.6	155
6	Recycling of water, carbon, and sulfur during subduction of serpentinites: A stable isotope study of Cerro del Almirez, Spain. Earth and Planetary Science Letters, 2012, 327-328, 50-60.	1.8	153
7	Multiple sulfur isotope constraints on the modern sulfur cycle. Earth and Planetary Science Letters, 2014, 396, 14-21.	1.8	152
8	Remobilization of crustal carbon may dominate volcanic arc emissions. Science, 2017, 357, 290-294.	6.0	152
9	Oxygen Isotope Constraints on the Sulfur Cycle over the Past 10 Million Years. Science, 2004, 303, 2004-2007.	6.0	123
10	Significant contribution of authigenic carbonate to marine carbon burial. Nature Geoscience, 2014, 7, 201-204.	5.4	115
11	Iron oxides stimulate sulfate-driven anaerobic methane oxidation in seeps. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, E4139-47.	3.3	112
12	Two-billion-year-old evaporites capture Earthâ€™s great oxidation. Science, 2018, 360, 320-323.	6.0	112
13	Cenozoic evolution of the sulfur cycle: Insight from oxygen isotopes in marine sulfate. Earth and Planetary Science Letters, 2006, 241, 763-779.	1.8	97
14	Drilling and sampling a natural CO2 reservoir: Implications for fluid flow and CO2-fluidâ€“rock reactions during CO2 migration through the overburden. Chemical Geology, 2014, 369, 51-82.	1.4	96
15	Kinetic oxygen isotope effects during dissimilatory sulfate reduction: A combined theoretical and experimental approach. Geochimica Et Cosmochimica Acta, 2010, 74, 2011-2024.	1.6	89
16	Decarbonation efficiency in subduction zones: Implications for warm Cretaceous climates. Earth and Planetary Science Letters, 2011, 303, 143-152.	1.8	86
17	Late Glacial temperature and precipitation changes in the lowland Neotropics by tandem measurement of Î´18O in biogenic carbonate and gypsum hydration water. Geochimica Et Cosmochimica Acta, 2012, 77, 352-368.	1.6	68
18	The preservation of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.gif" overflow="scroll"><mml:mi>Î´</mml:mi><mml:mmultiscripts><mml:mrow><mml:mi mathvariant="normal">S</mml:mi></mml:mrow><mml:mrow><mml:msub><mml:mrow><mml:mi mathvariant="normal">SO</mml:mi></mml:mrow><mml:mrow><mml:mn>4</mml:mn></mml:mrow></mml:msub></mml:mrow><mml /><mml:mprescripts /><mml:none /><mml:mrow><mml:mn>34</mml:mn></mml:mrow></mml:mmultiscripts></mml:math> and <mml:math	1.8	67

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19	Conditional iron and pH-dependent activity of a non-enzymatic glycolysis and pentose phosphate pathway. Science Advances, 2016, 2, e1501235.	4.7	65
20	Isotope evidence for secondary sulfide precipitation along the Marsyandi River, Nepal, Himalayas. Earth and Planetary Science Letters, 2013, 374, 36-46.	1.8	64
21	Sulfur and oxygen isotope tracing of sulfate driven anaerobic methane oxidation in estuarine sediments. Estuarine, Coastal and Shelf Science, 2014, 142, 4-11.	0.9	63
22	Combined 34S, 33S and 18O isotope fractionations record different intracellular steps of microbial sulfate reduction. Geochimica Et Cosmochimica Acta, 2017, 203, 364-380.	1.6	57
23	Large sulfur isotope fractionation by bacterial sulfide oxidation. Science Advances, 2019, 5, eaaw1480.	4.7	57
24	Calcium isotope evidence for suppression of carbonate dissolution in carbonate-bearing organic-rich sediments. Geochimica Et Cosmochimica Acta, 2011, 75, 7081-7098.	1.6	56
25	A unique isotopic fingerprint of sulfate-driven anaerobic oxidation of methane. Geology, 2015, 43, 619-622.	2.0	55
26	Oxygen isotopic composition of sulfate in deep sea pore fluid: evidence for rapid sulfur cycling. Geobiology, 2006, 4, 191-201.	1.1	50
27	Cenozoic record of Î´34S in foraminiferal calcite implies an early Eocene shift to deep-ocean sulfide burial. Nature Geoscience, 2018, 11, 761-765.	5.4	50
28	Diffusive cation fluxes in deep-sea sediments and insight into the global geochemical cycles of calcium, magnesium, sodium and potassium. Marine Geology, 2016, 373, 64-77.	0.9	46
29	The role of microbial sulfate reduction in calcium carbonate polymorph selection. Geochimica Et Cosmochimica Acta, 2018, 237, 184-204.	1.6	46
30	Coupled measurements of Î´ 18 O and Î´ D of hydration water and salinity of fluid inclusions in gypsum from the Messinian Yesares Member, Sorbas Basin (SE Spain). Earth and Planetary Science Letters, 2015, 430, 499-510.	1.8	45
31	Lithium isotopic composition of benthic foraminifera: A new proxy for paleo-pH reconstruction. Geochimica Et Cosmochimica Acta, 2018, 236, 336-350.	1.6	45
32	The sulfur cycle below the sulfate-methane transition of marine sediments. Geochimica Et Cosmochimica Acta, 2018, 239, 74-89.	1.6	44
33	Stable isotope analysis of the Cretaceous sulfur cycle. Earth and Planetary Science Letters, 2009, 285, 115-123.	1.8	43
34	Anaerobic oxidation of methane by sulfate in hypersaline groundwater of the Dead Sea aquifer. Geobiology, 2014, 12, 511-528.	1.1	43
35	Geochemical evidence for cryptic sulfur cycling in salt marsh sediments. Earth and Planetary Science Letters, 2016, 453, 23-32.	1.8	42
36	Large mass-independent sulphur isotope anomalies link stratospheric volcanism to the Late Ordovician mass extinction. Nature Communications, 2020, 11, 2297.	5.8	42

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37	Triple oxygen isotope insight into terrestrial pyrite oxidation. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 7650-7657.	3.3	39
38	Constraints on the late Ediacaran sulfur cycle from carbonate associated sulfate. Precambrian Research, 2017, 290, 113-125.	1.2	38
39	Seawater Chemistry Through Phanerozoic Time. Annual Review of Earth and Planetary Sciences, 2019, 47, 197-224.	4.6	38
40	Hydrocarbon-related microbial processes in the deep sediments of the Eastern Mediterranean Levantine Basin. FEMS Microbiology Ecology, 2014, 87, 780-796.	1.3	35
41	Reevaluating the carbon sink due to sedimentary carbonate formation in modern marine sediments. Earth and Planetary Science Letters, 2019, 519, 40-49.	1.8	35
42	Early diagenesis of iron and sulfur in Bornholm Basin sediments: The role of near-surface pyrite formation. Geochimica Et Cosmochimica Acta, 2020, 284, 43-60.	1.6	33
43	The Sedimentary Carbon-Sulfur-Iron Interplay â€“ A Lesson From East Anglian Salt Marsh Sediments. Frontiers in Earth Science, 2019, 7, .	0.8	31
44	Stable Isotope Analysis of Intact Oxyanions Using Electrospray Quadrupole-Orbitrap Mass Spectrometry. Analytical Chemistry, 2020, 92, 3077-3085.	3.2	30
45	Microbial sulfur metabolism evidenced from pore fluid isotope geochemistry at Site U1385. Global and Planetary Change, 2016, 141, 82-90.	1.6	28
46	Impact of Aeolian Dry Deposition of Reactive Iron Minerals on Sulfur Cycling in Sediments of the Gulf of Aqaba. Frontiers in Microbiology, 2017, 8, 1131.	1.5	28
47	Calcium isotope fractionation in sedimentary pore fluids from ODP Leg 175: Resolving carbonate recrystallization. Geochimica Et Cosmochimica Acta, 2018, 236, 121-139.	1.6	28
48	Partitioning riverine sulfate sources using oxygen and sulfur isotopes: Implications for carbon budgets of large rivers. Earth and Planetary Science Letters, 2021, 567, 116957.	1.8	27
49	Water chemistry reveals a significant decline in coral calcification rates in the southern Red Sea. Nature Communications, 2018, 9, 3615.	5.8	26
50	Annual sulfur cycle in a warm monomictic lake with sub-millimolar sulfate concentrations. Geochemical Transactions, 2015, 16, 7.	1.8	25
51	The remarkable longevity of submarine plumes: Implications for the hydrothermal input of iron to the deep-ocean. Earth and Planetary Science Letters, 2013, 382, 66-76.	1.8	23
52	The microbially driven formation of siderite in salt marsh sediments. Geobiology, 2020, 18, 207-224.	1.1	23
53	Reconstructing the oxygen isotope composition of late Cambrian and Cretaceous hydrothermal vent fluid. Geochimica Et Cosmochimica Acta, 2013, 123, 440-458.	1.6	21
54	Controls on the Precipitation of Carbonate Minerals Within Marine Sediments. Frontiers in Earth Science, 2021, 9, .	0.8	21

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55	Glacial influence on the iron and sulfur cycles in Arctic fjord sediments (Svalbard). Geochimica Et Cosmochimica Acta, 2020, 280, 423-440.	1.6	20
56	Seasonal Dynamics of Methane and Carbon Dioxide Evasion From an Open System Pingo: Lagoon Pingo, Svalbard. Frontiers in Earth Science, 2019, 7, .	0.8	19
57	Experimental calibration of clumped isotopes in siderite between 8.5 and 62â€Â°C and its application as paleo-thermometer in paleosols. Geochimica Et Cosmochimica Acta, 2019, 254, 1-20.	1.6	19
58	Sub-permafrost methane seepage from open-system pingos in Svalbard. Cryosphere, 2020, 14, 3829-3842.	1.5	18
59	Sulfur degassing due to contact metamorphism during flood basalt eruptions. Geochimica Et Cosmochimica Acta, 2013, 120, 263-279.	1.6	17
60	Geologic reconnaissance of the island of Velika PalagruÅ¾a (central Adriatic, Croatia). Geologia Croatica, 2009, 62, 75-94.	0.3	16
61	Comparing Rhizon samplers and centrifugation for poreâ€water separation in studies of the marine carbonate system in sediments. Limnology and Oceanography: Methods, 2018, 16, 828-839.	1.0	16
62	Fire and Brimstone: The Microbially Mediated Formation of Elemental Sulfur Nodules from an Isotope and Major Element Study in the Paleo-Dead Sea. PLoS ONE, 2013, 8, e75883.	1.1	15
63	Isotopic analysis of sulfur cycling and gypsum vein formation in a natural CO2 reservoir. Chemical Geology, 2016, 436, 72-83.	1.4	15
64	Spatial and Temporal Dynamics of Dissolved Organic Carbon, Chlorophyll, Nutrients, and Trace Metals in Maritime Antarctic Snow and Snowmelt. Frontiers in Earth Science, 2018, 6, .	0.8	15
65	Local and Regional Indian Summer Monsoon Precipitation Dynamics During Termination II and the Last Interglacial. Geophysical Research Letters, 2019, 46, 12454-12463.	1.5	15
66	Tetrathionate and Elemental Sulfur Shape the Isotope Composition of Sulfate in Acid Mine Drainage. Frontiers in Microbiology, 2017, 8, 1564.	1.5	14
67	Extraterrestrial dust, the marine lithologic record, and global biogeochemical cycles. Geology, 2018, 46, 863-866.	2.0	14
68	Creek Dynamics Determine Pond Subsurface Geochemical Heterogeneity in East Anglian (UK) Salt Marshes. Frontiers in Earth Science, 2019, 7, .	0.8	14
69	The Production and Fate of Volatile Organosulfur Compounds in Sulfidic and Ferruginous Sediment. Journal of Geophysical Research G: Biogeosciences, 2019, 124, 3390-3402.	1.3	14
70	Molybdenum geochemistry in salt marsh pond sediments. Geochimica Et Cosmochimica Acta, 2020, 284, 75-91.	1.6	14
71	Controls on the abiotic exchange between aqueous sulfate and water under laboratory conditions. Limnology and Oceanography: Methods, 2014, 12, 166-173.	1.0	13
72	High-temperature kinetic isotope fractionation of calcium in epidosites from modern and ancient seafloor hydrothermal systems. Earth and Planetary Science Letters, 2020, 535, 116101.	1.8	11

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73	Semiquantitative Estimates of Rainfall Variability During the 8.2 kyr Event in California Using Speleothem Calcium Isotope Ratios. Geophysical Research Letters, 2021, 48, e2020GL089154.	1.5	10
74	The effect of temperature on sulfur and oxygen isotope fractionation by sulfate reducing bacteria (Desulfococcus multivorans). FEMS Microbiology Letters, 2020, 367, .	0.7	9
75	Calcium isotope fractionation during microbially induced carbonate mineral precipitation. Geochimica Et Cosmochimica Acta, 2020, 277, 37-51.	1.6	9
76	Calcium isotopes as a record of the marine calcium cycle versus carbonate diagenesis during the late Ediacaran. Chemical Geology, 2019, 529, 119319.	1.4	8
77	Dissolved Strontium, Sr/Ca Ratios, and the Abundance of Acantharia in the Indian and Southern Oceans. ACS Earth and Space Chemistry, 2020, 4, 802-811.	1.2	8
78	The calcium isotopic composition of carbonate hardground cements: A new record of changes in ocean chemistry?. Chemical Geology, 2020, 540, 119490.	1.4	7
79	Modelling the Effects of Non-Steady State Transport Dynamics on the Sulfur and Oxygen Isotope Composition of Sulfate in Sedimentary Pore Fluids. Frontiers in Earth Science, 2021, 8, .	0.8	7
80	A quantification of the effect of diagenesis on the paleoredox record in mid-Proterozoic sedimentary rocks. Geology, 2021, 49, 1143-1147.	2.0	7
81	Testing for ocean acidification during the Early Toarcian using Î´44/40Ca and Î´88/86Sr. Chemical Geology, 2021, 574, 120228.	1.4	7
82	Early diagenesis of sulfur in Bornholm Basin sediments: The role of upward diffusion of isotopically â€œheavyâ€•sulfide. Geochimica Et Cosmochimica Acta, 2021, 313, 359-377.	1.6	7
83	Rates and Cycles of Microbial Sulfate Reduction in the Hyper-Saline Dead Sea over the Last 200 kyrs from Sedimentary Î´34S and Î´18O(SO4). Frontiers in Earth Science, 2017, 5, .	0.8	6
84	Disentangling Diagenesis From the Rock Record: An Example From the Permoâ€Triassic Wordie Creek Formation, East Greenland. Geochemistry, Geophysics, Geosystems, 2018, 19, 99-113.	1.0	6
85	The Carbon-Sulfur Link in the Remineralization of Organic Carbon in Surface Sediments. Frontiers in Earth Science, 2021, 9, .	0.8	6
86	Chemical Composition of Carbonate Hardground Cements as Reconstructive Tools for Phanerozoic Pore Fluids. Geochemistry, Geophysics, Geosystems, 2020, 21, e2019GC008448.	1.0	5
87	Physical weathering of carbonate host-rock by precipitation of soluble salts in caves: A case study in El OrÃ³n-Arco Cave (Region of Murcia, SE Spain). Chemical Geology, 2019, 521, 1-11.	1.4	4
88	Assessing Sedimentary Boundary Layer Calcium Carbonate Precipitation and Dissolution Using the Calcium Isotopic Composition of Pore Fluids. Frontiers in Earth Science, 2021, 9, .	0.8	4
89	Sulfur isotope patterns of iron sulfide and barite nodules in the Upper Cretaceous Chalk of England and their regional significance in the origin of coloured chalks. Acta Geologica Polonica, 2016, 66, 227-256.	0.9	3
90	Strontium stratigraphy of the Oligoceneâ€“Early Miocene shellbeds of the Kutch Basin, western India, and its implications. Lethaia, 2020, 53, 382-395.	0.6	3

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91	On calcium-to-alkalinity anomalies in the North Pacific, Red Sea, Indian Ocean and Southern Ocean. Geochimica Et Cosmochimica Acta, 2021, 303, 1-14.	1.6	2
92	Intensified microbial sulfate reduction in the deep Dead Sea during the early Holocene Mediterranean sapropel 1 deposition. Geobiology, 2022, 20, 518-532.	1.1	2
93	The Calcium Isotope Systematics of the Late Quaternary Dead Sea Basin Lakes. Geochemistry, Geophysics, Geosystems, 2018, 19, 4260-4273.	1.0	1
94	Reconstructing Earth's Climate History. Inquiry-Based Exercises for Lab and Class. Kristen St John , R. Mark Leckie , Kate Pound , Megan Jones , Lawrence Krissek . Review by Dr Alexandra V. Turchyn. Geological Magazine, 2016, 153, .	0.9	0