Michael J Spicuzza

List of Publications by Year
in descending order

77 papers	6,125 citations	109321 35 h-index	71685 76 g-index
77 all docs	77 docs citations	77 times ranked	4576 citing authors

#	Article	IF	Citations
1	4.4 billion years of crustal maturation: oxygen isotope ratios of magmatic zircon. Contributions To Mineralogy and Petrology, 2005, 150, 561-580.	3.1	970
2	Zircon megacrysts from kimberlite: oxygen isotope variability among mantle melts. Contributions To Mineralogy and Petrology, 1998, 133, 1-11.	3.1	800
3	UWG-2, a garnet standard for oxygen isotope ratios: Strategies for high precision and accuracy with laser heating. Geochimica Et Cosmochimica Acta, 1995, 59, 5223-5231.	3.9	632
4	Hadean age for a post-magma-ocean zircon confirmed by atom-probe tomography. Nature Geoscience, 2014, 7, 219-223.	12.9	451
5	Fe, C, and O isotope compositions of banded iron formation carbonates demonstrate a major role for dissimilatory iron reduction in ~2.5Ga marine environments. Earth and Planetary Science Letters, 2010, 294, 8-18.	4.4	220
6	Geochemistry of xenolithic eclogites from West Africa, part I: A link between low MgO eclogites and archean crust formation. Geochimica Et Cosmochimica Acta, 2001, 65, 1499-1527.	3.9	198
7	High precision SIMS oxygen three isotope study of chondrules in LL3 chondrites: Role of ambient gas during chondrule formation. Geochimica Et Cosmochimica Acta, 2010, 74, 6610-6635.	3.9	162
8	Zircons from kimberlite: New insights from oxygen isotopes, trace elements, and Ti in zircon thermometry. Geochimica Et Cosmochimica Acta, 2007, 71, 3887-3903.	3.9	147
9	Intratest oxygen isotope variability in the planktonic foraminifer N. pachyderma: Real vs. apparent vital effects by ion microprobe. Chemical Geology, 2009, 258, 327-337.	3.3	138
10	SIMS analyses of the oldest known assemblage of microfossils document their taxon-correlated carbon isotope compositions. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 53-58.	7.1	131
11	Oxygen isotope constraints on the origin and differentiation of the Moon. Earth and Planetary Science Letters, 2007, 253, 254-265.	4.4	130
12	Geochemistry of xenolithic eclogites from West Africa, part 2: origins of the high MgO eclogites. Geochimica Et Cosmochimica Acta, 2002, 66, 4325-4345.	3.9	105
13	Influence of radiation damage on Late Jurassic zircon from southern China: Evidence from in situ measurements of oxygen isotopes, laser Raman, Uâ€“Pb ages, and trace elements. Chemical Geology, 2014, 389, 122-136.	3.3	94
14	Texture-specific isotopic compositions in 3.4Gyr old organic matter support selective preservation in cell-like structures. Geochimica Et Cosmochimica Acta, 2013, 112, 66-86.	3.9	87
15	The rapid heating, defocused beam technique: a CO2-laser-based method for highly precise and accurate determination of Î´18O values of quartz. Chemical Geology, 1998, 144, 195-203.	3.3	86
16	A single asteroidal source for extraterrestrial Ordovician chromite grains from Sweden and China: High-precision oxygen three-isotope SIMS analysis. Geochimica Et Cosmochimica Acta, 2010, 74, 497-509.	3.9	79
17	Zircon oxygen isotopic constraint on the sources of late Mesozoic A-type granites in eastern China. Chemical Geology, 2008, 250, 1-15.	3.3	72
18	Crystal orientation effects in Î´18O for magnetite and hematite by SIMS. Chemical Geology, 2010, 276, 269-283.	3.3	70

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19	Coesite eclogites from the Roberts Victor kimberlite, South Africa. Lithos, 2000, 54, 23-32.	1.4	67
20	Questioning the biogenicity of Neoproterozoic superheavy pyrite by SIMS. American Mineralogist, 2018, 103, 1362-1400.	1.9	67
21	Oxygen and iron isotope constraints on near-surface fractionation effects and the composition of lunar mare basalt source regions. Geochimica Et Cosmochimica Acta, 2010, 74, 6249-6262.	3.9	62
22	Multiple origins of zircons in jadeitite. Contributions To Mineralogy and Petrology, 2010, 159, 769-780.	3.1	60
23	Interrelations between coeval mafic and A-type silicic magmas from composite dykes in a bimodal suite of southern Israel, northernmost Arabianâ€“Nubian Shield: Geochemical and isotope constraints. Lithos, 2007, 97, 336-364.	1.4	59
24	Secondary Ion Mass Spectrometry Bias on Isotope Ratios in Dolomiteâ€“Ankerite, Part I: Î´¹⁸O Matrix Effects. Geostandards and Geoanalytical Research, 2016, 40, 157-172.	3.1	56
25	Carbon and sulfur isotopic signatures of ancient life and environment at the microbial scale: Neoarchean shales and carbonates. Geobiology, 2016, 14, 105-128.	2.4	52
26	Zircon M127 â€“ A Homogeneous Reference Material for <scp>SIMS</scp> Uâ€“Pb Geochronology Combined with Hafnium, Oxygen and, Potentially, Lithium Isotope Analysis. Geostandards and Geoanalytical Research, 2016, 40, 457-475.	3.1	49
27	The origin of high Î´18O zircons: marbles, megacrysts, and metamorphism. Contributions To Mineralogy and Petrology, 2011, 162, 961-974.	3.1	48
28	Metasomatic origin of diamonds in the world's largest diamondiferous eclogite. Lithos, 2009, 112, 1014-1024.	1.4	45
29	An experimental and theoretical determination of oxygen isotope fractionation in the system magnetite-H2O from 300 to 800Â°C. Geochimica Et Cosmochimica Acta, 2004, 68, 3569-3585.	3.9	43
30	The formation of <scp>IIE</scp> iron meteorites investigated by the chondruleâ€bearing Mont Dieu meteorite. Meteoritics and Planetary Science, 2015, 50, 1173-1196.	1.6	41
31	Oxygen isotope composition of carbonates, silicates, and oxides in selected carbonatites: constraints on crystallization temperatures of carbonatite magmas. Chemical Geology, 2003, 193, 43-57.	3.3	40
32	The thermal structure of continental crust in active orogens: insight from Miocene eclogite and granulite xenoliths of the Pamir Mountains. Journal of Metamorphic Geology, 2012, 30, 413-434.	3.4	39
33	Experimental evaporation of Mg- and Si-rich melts: Implications for the origin and evolution of FUN CAIs. Geochimica Et Cosmochimica Acta, 2013, 123, 368-384.	3.9	39
34	Secondary Ion Mass Spectrometry Bias on Isotope Ratios in Dolomiteâ€“Ankerite, Part <scp>II</scp>: Î´¹³C Matrix Effects. Geostandards and Geoanalytical Research, 2016, 40, 173-184.	3.1	36
35	Experimental calibration of silicon and oxygen isotope fractionations between quartz and water at 250 Â°C by in situ microanalysis of experimental products and application to zoned low Î´30Si quartz overgrowths. Chemical Geology, 2016, 421, 127-142.	3.3	35
36	Oxygen isotope compositions and magmatic epidote from two contrasting metaluminous granitoids, NE Brazil. Contributions To Mineralogy and Petrology, 2003, 145, 205-216.	3.1	34

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37	Oxygen isotope variations in Cr-poor megacrysts from kimberlite. Geochimica Et Cosmochimica Acta, 2001, 65, 4375-4384.	3.9	32
38	Diamondiferous xenoliths from crustal subduction: garnet oxygen isotopes from the Nyurbinskaya pipe, Yakutia. European Journal of Mineralogy, 2008, 20, 375-385.	1.3	32
39	Oxygen isotope variations of garnets and clinopyroxenes in a layered diamondiferous calcsilicate rock from Kokchetav Massif, Kazakhstan: a window into the geochemical nature of deeply subducted UHPM rocks. Contributions To Mineralogy and Petrology, 2011, 162, 1079-1092.	3.1	32
40	<scp>GZ</scp>7 and <scp>GZ</scp>8 â€“ Two Zircon Reference Materials for <scp>SIMS</scp> Uâ€Pb Geochronology. Geostandards and Geoanalytical Research, 2018, 42, 431-457.	3.1	32
41	The Northwest Africa 1500 meteorite: Not a ureilite, maybe a brachinite. Meteoritics and Planetary Science, 2010, 45, 1906-1928.	1.6	29
42	Oxygen Isotope Evidence for Mn(II)-Catalyzed Recrystallization of Manganite (Î³-MnOOH). Environmental Science & Technology, 2016, 50, 6374-6380.	10.0	29
43	Temporal and compositional evolution of Jorullo volcano, Mexico: Implications for magmatic processes associated with a monogenetic eruption. Chemical Geology, 2016, 434, 62-80.	3.3	28
44	Low temperature, non-stoichiometric oxygen-isotope exchange coupled to Fe(II)â€“goethite interactions. Geochimica Et Cosmochimica Acta, 2015, 160, 38-54.	3.9	27
45	Carbon Isotope Composition of Graphite in Mantle Eclogites. Journal of Geology, 1997, 105, 379-386.	1.4	25
46	Contrasting sources and P-T crystallization conditions of epidote-bearing granitic rocks, northeastern Brazil: O, Sr, and Nd isotopes. Lithos, 2011, 121, 189-201.	1.4	24
47	Thermal and chemical evolution in the early Solar System as recorded by FUN CAIs: Part II â€“ Laboratory evaporation of potential CMS-1 precursor material. Geochimica Et Cosmochimica Acta, 2017, 201, 49-64.	3.9	24
48	Deposition or diagenesis? Probing the Ediacaran Shuram excursion in South China by SIMS. Global and Planetary Change, 2021, 206, 103591.	3.5	23
49	Correlated Î´18O and [Ti] in lunar zircons: a terrestrial perspective for magma temperatures and water content on the Moon. Contributions To Mineralogy and Petrology, 2014, 167, 1.	3.1	22
50	Oxygen isotope evolution of the Lake Owyhee volcanic field, Oregon, and implications for the low-Î´18O magmatism of the Snake River Plainâ€“Yellowstone hotspot and other low-Î´18O large igneous provinces. Contributions To Mineralogy and Petrology, 2016, 171, 1.	3.1	22
51	Fault-related oceanic serpentinization in the Troodos ophiolite, Cyprus: Implications for a fossil oceanic core complex. Earth and Planetary Science Letters, 2009, 282, 34-46.	4.4	20
52	Soft X-Ray EPMA Analyses of Extremely Reduced Phases from Apollo 16 Regolith: Problems and Solutions for Sub-Micron Analysis. Microscopy and Microanalysis, 2014, 20, 698-699.	0.4	18
53	Extreme oxygen isotope zoning in garnet and zircon from a metachert block in mÃ©lange reveals metasomatism at the peak of subduction metamorphism. Geology, 2019, 47, 655-658.	4.4	18
54	Magnesium isotope analysis of olivine and pyroxene by SIMS: Evaluation of matrix effects. Chemical Geology, 2020, 540, 119482.	3.3	18

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55	Oxygen Isotope Composition of Eclogitic and Peridotitic Garnet Xenocrysts from the La Ceniza Kimberlite, Guaniamo, Venezuela. International Geology Review, 2003, 45, 968-975.	2.1	17
56	Strain and permeability gradients traced by stable isotope exchange inÂthe Raft River detachment shear zone, Utah. Journal of Structural Geology, 2015, 71, 41-57.	2.3	16
57	SIMS Bias on Isotope Ratios in Caâ€Mgâ€Fe Carbonates (Part III): Î´¹⁸O and Î´¹³C Matrix Effects Along the Magnesiteâ€“Siderite Solidâ€Solution Series. Geostandards and Geoanalytical Research, 2018, 42, 49-76.	3.1	16
58	SIMS microanalysis of the Strelley Pool Formation cherts and the implications for the secular-temporal oxygen-isotope trend of cherts. Precambrian Research, 2018, 304, 125-139.	2.7	16
59	In situ Î´13C and Î´18O microanalysis by SIMS: A method for characterizing the carbonate components of natural and engineered CO2-reservoirs. International Journal of Greenhouse Gas Control, 2017, 57, 116-133.	4.6	15
60	Searching for the Great Oxidation Event in North America: A Reappraisal of the Huronian Supergroup by SIMS Sulfur Four-Isotope Analysis. Astrobiology, 2018, 18, 519-538.	3.0	14
61	The origin, cooling and alteration of A-type granites in southern Israel (northernmost) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 5	1.5	12
62	Ultraâ€reduced phases in Apollo 16 regolith: Combined field emission electron probe microanalysis and atom probe tomography of submicron Feâ€Si grains in Apollo 16 sample 61500. Meteoritics and Planetary Science, 2017, 52, 1941-1962.	1.6	12
63	In Situ Oxygen Isotope Determination in Serpentine Minerals by SIMS: Addressing Matrix Effects and Providing New Insights on Serpentinisation at Hole BA1B (Samail ophiolite, Oman). Geostandards and Geoanalytical Research, 2021, 45, 161-187.	3.1	12
64	Tracking fluid flow during deep crustal anatexis: metasomatism of peridotites (Naxos, Greece). Contributions To Mineralogy and Petrology, 2002, 142, 700-713.	3.1	11
65	Lying in wait: deep and shallow evolution of dacite beneath VolcÃ¡n de Santa MarÃa, Guatemala. Geological Society Special Publication, 2014, 385, 209-234.	1.3	11
66	Tourmaline Reference Materials for the In Situ Analysis of Oxygen and Lithium Isotope Ratio Compositions. Geostandards and Geoanalytical Research, 2021, 45, 97-119.	3.1	10
67	Oxygen isotope thermometry using quartz inclusions in garnet. Journal of Metamorphic Geology, 2017, 35, 231-252.	3.4	9
68	Storage and Evolution of Laguna del Maule Rhyolites: Insight From Volatile and Trace Element Contents in Melt Inclusions. Journal of Geophysical Research: Solid Earth, 2020, 125, e2020JB019475.	3.4	9
69	A Nanoscale Record of Impact-Induced Pb Mobility in Lunar Zircon. Microscopy and Microanalysis, 2019, 25, 2448-2449.	0.4	8
70	An authigenic response to Ediacaran surface oxidation: Remarkable micron-scale isotopic heterogeneity revealed by SIMS. Precambrian Research, 2022, 377, 106676.	2.7	8
71	SIMS matrix effects in oxygen isotope analysis of olivine and pyroxene: Application to Acfer 094 chondrite chondrules and reconsideration of the primitive chondrule minerals (PCM) line. Chemical Geology, 2022, 608, 121016.	3.3	8
72	Instrumental investigation of oxygen isotopes in human dental enamel from the Bronze Age battlefield site at Tollense, Germany. Journal of Archaeological Science, 2019, 105, 70-80.	2.4	6

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73	Calibration of oxygen isotope fractionation and calciteâ€“corundum thermometry in emery at Naxos, Greece. Journal of Metamorphic Geology, 2020, 38, 53-70.	3.4	6
74	Fall, classification, and exposure history of the Mifflin L5 chondrite. Meteoritics and Planetary Science, 2013, 48, 641-655.	1.6	5
75	Oxygen isotope systematics in an evolving geothermal system: Coso Hot Springs, California. Journal of Volcanology and Geothermal Research, 2017, 329, 54-68.	2.1	3
76	On the Association between Veining and Index Mineral Distributions in Barrowâ€™s Metamorphic Zones, Glen Esk, Scotland. Journal of Petrology, 2017, , .	2.8	2
77	Geological Applications of Atom Probe Tomography: New Information from Old Rocks. Microscopy and Microanalysis, 2014, 20, 1678-1679.	0.4	0