Stephen J Mojzsis

List of Publications by Year
in descending order

104 papers	7,611 citations	57758 44 h-index	53230 85 g-index
115 all docs	115 docs citations	115 times ranked	4731 citing authors

#	Article	IF	Citations
1	Evidence for life on Earth before 3,800 million years ago. Nature, 1996, 384, 55-59.	27.8	1,188
2	Oxygen-isotope evidence from ancient zircons for liquid water at the Earth's surface 4,300â€‰Myr ago. Nature, 2001, 409, 178-181.	27.8	747
3	Heterogeneous Hadean Hafnium: Evidence of Continental Crust at 4.4 to 4.5 Ga. Science, 2005, 310, 1947-1950.	12.6	476
4	Aerobic bacterial pyrite oxidation and acid rock drainage during the Great Oxidation Event. Nature, 2011, 478, 369-373.	27.8	299
5	Microbial habitability of the Hadean Earth during the late heavy bombardment. Nature, 2009, 459, 419-422.	27.8	247
6	Composition and Structure of Microbial Communities from Stromatolites of Hamelin Pool in Shark Bay, Western Australia. Applied and Environmental Microbiology, 2005, 71, 4822-4832.	3.1	203
7	Mass-independent isotope effects in Archean (2.5 to 3.8 Ga) sedimentary sulfides determined by ion microprobe analysis. Geochimica Et Cosmochimica Acta, 2003, 67, 1635-1658.	3.9	190
8	Recognition of â‰¥3850 Ma water-lain sediments in West Greenland and their significance for the early Archaean Earth. Geochimica Et Cosmochimica Acta, 1997, 61, 2475-2484.	3.9	186
9	Hafnium isotope evidence from Archean granitic rocks for deep-mantle origin of continental crust. Earth and Planetary Science Letters, 2012, 337-338, 211-223.	4.4	169
10	Constraints on Hadean zircon protoliths from oxygen isotopes, Ti-thermometry, and rare earth elements. Geochemistry, Geophysics, Geosystems, 2007, 8, n/a-n/a.	2.5	160
11	Establishment of a 3.83-Ga magmatic age for the Akilia tonalite (southern West Greenland). Earth and Planetary Science Letters, 2002, 202, 563-576.	4.4	143
12	Multiple sulfur isotopes from Paleoproterozoic Huronian interglacial sediments and the rise of atmospheric oxygen. Earth and Planetary Science Letters, 2007, 255, 188-212.	4.4	127
13	Identification of chemical sedimentary protoliths using iron isotopes in the >3750ÂMa Nuvvuagittuq supracrustal belt, Canada. Earth and Planetary Science Letters, 2007, 254, 358-376.	4.4	112
14	Pre-3750ÂMa supracrustal rocks from the Nuvvuagittuq supracrustal belt, northern QuÃ©bec. Earth and Planetary Science Letters, 2007, 255, 9-21.	4.4	102
15	The composition of Earth's oldest iron formations: The Nuvvuagittuq Supracrustal Belt (QuÃ©bec,) Tj ETQq1 1 0.784314 rgBT /Overl	4.4	99
16	Cobalt and marine redox evolution. Earth and Planetary Science Letters, 2014, 390, 253-263.	4.4	95
17	The terrestrial late veneer from core disruption of a lunar-sized impactor. Earth and Planetary Science Letters, 2017, 480, 25-32.	4.4	95
18	Inherited 142Nd anomalies in Eoarchean protoliths. Earth and Planetary Science Letters, 2013, 361, 50-57.	4.4	91

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19	The Martian subsurface as a potential window into the origin of life. Nature Geoscience, 2018, 11, 21-26.	12.9	91
20	Nitrogen isotopic composition of ammoniated phyllosilicates: case studies from Precambrian metamorphosed sedimentary rocks. Chemical Geology, 2005, 216, 37-58.	3.3	86
21	Onset of Giant Planet Migration before 4480 Million Years Ago. Astrophysical Journal, 2019, 881, 44.	4.5	82
22	Geology, Age and Origin of Supracrustal Rocks at Akilia, West Greenland. Numerische Mathematik, 2006, 306, 303-366.	1.4	81
23	Tungsten isotope composition of the Acasta Gneiss Complex. Earth and Planetary Science Letters, 2015, 419, 168-177.	4.4	80
24	Entropy and Charge in Molecular Evolutionâ€"the Case of Phosphate. Journal of Theoretical Biology, 1997, 187, 503-522.	1.7	78
25	Multiple sulfur isotopes of sulfides from sediments in the aftermath of Paleoproterozoic glaciations. Geochimica Et Cosmochimica Acta, 2005, 69, 5033-5060.	3.9	76
26	Component geochronology in the polyphase ca. 3920 Ma Acasta Gneiss. Geochimica Et Cosmochimica Acta, 2014, 133, 68-96.	3.9	75
27	Sulfur isotopic compositions of individual sulfides in Martian meteorites ALH84001 and Nakhla: implications for crustâ€"regolith exchange on Mars. Earth and Planetary Science Letters, 2000, 184, 23-35.	4.4	74
28	ANALYSIS OF TERRESTRIAL PLANET FORMATION BY THE GRAND TACK MODEL: SYSTEM ARCHITECTURE AND TACK LOCATION. Astrophysical Journal, 2016, 821, 75.	4.5	73
29	The partitioning of the inner and outer Solar System by a structured protoplanetary disk. Nature Astronomy, 2020, 4, 492-499.	10.1	73
30	When Did Life Likely Emerge on Earth in an RNAâ€First Process?. ChemSystemsChem, 2020, 2, e1900035.	2.6	71
31	Thermal events documented in Hadean zircons by ion microprobe depth profiles. Geochimica Et Cosmochimica Acta, 2007, 71, 4044-4065.	3.9	64
32	A radiogenic heating evolution model for cosmochemically Earth-like exoplanets. Icarus, 2014, 243, 274-286.	2.5	63
33	Ion Microprobe Uâ€Pb Age Determinations on Zircon from the Late Archean Granulite Facies Transition Zone of Southern India. Journal of Geology, 2003, 111, 407-425.	1.4	62
34	A protracted timeline for lunar bombardment from mineral chemistry, Ti thermometry and Uâ€"Pb geochronology of Apollo 14 melt breccia zircons. Contributions To Mineralogy and Petrology, 2015, 169, 1.	3.1	61
35	Extraterrestrial iridium, sediment accumulation and the habitability of the early Earth's surface. Journal of Geophysical Research, 2001, 106, 3219-3236.	3.3	60
36	The impact environment of the Hadean Earth. Chemie Der Erde, 2013, 73, 227-248.	2.0	60

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37	Reduced, reused and recycled: Detrital zircons define a maximum age for the Eoarchean (ca. 3750â€“3780) Tj ETQq1 1 0.784314 rgBT / 283-293.	4.4	60
38	Combined^{147,146}Smâ€^{143,142}Nd constraints on the longevity and residence time of early terrestrial crust. Geochemistry, Geophysics, Geosystems, 2014, 15, 2329-2345.	2.5	58
39	Extinct 244Pu in Ancient Zircons. Science, 2004, 306, 89-91.	12.6	57
40	Late veneer and late accretion to the terrestrial planets. Earth and Planetary Science Letters, 2016, 455, 85-93.	4.4	57
41	Ancient graphite in the Eoarchean quartzâ€“pyroxene rocks from Akilia in southern West Greenland I: Petrographic and spectroscopic characterization. Geochimica Et Cosmochimica Acta, 2010, 74, 5862-5883.	3.9	55
42	Thermodynamics, Disequilibrium, Evolution: Far-From-Equilibrium Geological and Chemical Considerations for Origin-Of-Life Research. Origins of Life and Evolution of Biospheres, 2017, 47, 39-56.	1.9	54
43	Chemical and isotopic evidence for widespread Eoarchean metasedimentary enclaves in southern West Greenland. Geochimica Et Cosmochimica Acta, 2006, 70, 4229-4257.	3.9	51
44	Metamorphic zircon, trace elements and Neoarchean metamorphism in the ca. 3.75ÂGa Nuvvuagittuq supracrustal belt, QuÃ©bec (Canada). Chemical Geology, 2009, 261, 99-114.	3.3	49
45	Heavy Bombardment of the Earth at ~3.85 Ga:. , 2000, , 475-492.		49
46	Puâ€“Xe, Uâ€“Xe, Uâ€“Pb chronology and isotope systematics of ancient zircons from Western Australia. Earth and Planetary Science Letters, 2007, 261, 491-499.	4.4	46
47	Supply of phosphate to early Earth by photogeochemistry after meteoritic weathering. Nature Geoscience, 2020, 13, 344-348.	12.9	45
48	A legacy of Hadean silicate differentiation inferred from Hf isotopes in Eoarchean rocks of the Nuvvuagittuq supracrustal belt (QuÃ©bec, Canada). Earth and Planetary Science Letters, 2013, 362, 171-181.	4.4	43
49	Sluggish Hadean geodynamics: Evidence from coupled 146,147 Smâ€“ 142,143 Nd systematics in Eoarchean supracrustal rocks of the Inukjuak domain (QuÃ©bec). Earth and Planetary Science Letters, 2017, 457, 23-37.	4.4	43
50	Origin and Significance of Archean Quartzose Rocks at Akilia, Greenland. Science, 2002, 298, 917a-917.	12.6	41
51	Luâ€“Hf isotope systematics of the Hadeanâ€“Eoarchean Acasta Gneiss Complex (Northwest Territories,) Tj ETQq1 1 0.784314 rgBT /	3.9	41
52	A search for thermal excursions from ancient extraterrestrial impacts using Hadean zircon Ti-U-Th-Pb depth profiles. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 13486-13492.	7.1	40
53	Impact bombardment chronology of the terrestrial planets from 4.5â€Ga to 3.5â€Ga. Icarus, 2020, 338, 113514.	2.5	38
54	The cool and distant formation of Mars. Earth and Planetary Science Letters, 2017, 468, 85-93.	4.4	37

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55	Micrometer-scale Uâ€“Pb age domains in eucrite zircons, impact re-setting, and the thermal history of the HED parent body. Icarus, 2015, 245, 367-378.	2.5	32
56	Chemical and textural overprinting of ancient stromatolites: Timing, processes, and implications for their use as paleoenvironmental proxies. Precambrian Research, 2016, 278, 145-160.	2.7	31
57	Mass-independent fractionation of sulfur isotopes in sulfides from the pre-3770ÂMa Isua Supracrustal Belt, West Greenland. Geobiology, 2006, 4, 227-238.	2.4	30
58	Phosphates and carbon on Mars: Exobiological implications and sample return considerations. Journal of Geophysical Research, 1998, 103, 28495-28511.	3.3	29
59	Abodes for life in carbonaceous asteroids?. Icarus, 2011, 213, 273-279.	2.5	29
60	Thermal effects of impact bombardments on Noachian Mars. Earth and Planetary Science Letters, 2016, 442, 108-120.	4.4	28
61	Catalytic Synthesis of Polyribonucleic Acid on Prebiotic Rock Glasses. Astrobiology, 2022, 22, 629-636.	3.0	28
62	Origin of life from apatite dating?. Nature, 1999, 400, 127-128.	27.8	27
63	Jupiter's Influence on the Building Blocks of Mars and Earth. Geophysical Research Letters, 2018, 45, 5908-5917.	4.0	27
64	Chemical sedimentary protoliths in the >3.75Ga Nuvvuagittuq Supracrustal Belt (QuÃ©bec, Canada). Gondwana Research, 2013, 23, 574-594.	6.0	26
65	A colossal impact enriched Mars' mantle with noble metals. Geophysical Research Letters, 2017, 44, 5978-5985.	4.0	26
66	Application of precise 142Nd/144Nd analysis of small samples to inclusions in diamonds (Finsch, South) Tj ETQq0 0 0 rgBT /Overlock 10	3.3	25
67	Correlated chemostratigraphy of Mn-carbonate microbialites (ÃšrkÃºt, Hungary). Gondwana Research, 2016, 29, 278-289.	6.0	22
68	Reappraisal of purported ca. 3.7 Ga stromatolites from the Isua Supracrustal Belt (West Greenland) from detailed chemical and structural analysis. Earth and Planetary Science Letters, 2020, 545, 116409.	4.4	21
69	Extraterrestrial life: Life on Mars â€“Â then and now. Current Biology, 1996, 6, 1213-1216.	3.9	20
70	Geology, age and field relations of Hadean zircon-bearing supracrustal rocks from Quad Creek, eastern Beartooth Mountains (Montana and Wyoming, USA). Chemical Geology, 2012, 312-313, 47-57.	3.3	20
71	Geochemistry of pyrite from diamictites of the Boolgeeda Iron Formation, Western Australia with implications for the GOE and Paleoproterozoic ice ages. Chemical Geology, 2013, 362, 131-142.	3.3	19
72	Evaluating an impact origin for Mercury's high-magnesium region. Journal of Geophysical Research E: Planets, 2017, 122, 614-632.	3.6	19

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73	Biogenesis of the Neoproterozoic kremydilite manganese ores from Urucum (Brazil) â€“ A new manganese ore type. Precambrian Research, 2020, 340, 105624.	2.7	19
74	Chapter 7.5 Sulphur on the Early Earth. Neoproterozoic-Cambrian Tectonics, Global Change and Evolution: A Focus on South Western Gondwana, 2007, 15, 923-970.	0.2	17
75	The curious case of Marsâ€™ formation. Astronomy and Astrophysics, 2018, 617, A17.	5.1	17
76	Late accretion to the Moon recorded in zircon (Uâ€“Th)/He thermochronometry. Earth and Planetary Science Letters, 2018, 482, 222-235.	4.4	16
77	Response to Comment on "Heterogeneous Hadean Hafnium: Evidence of Continental Crust at 4.4 to 4.5 Ga". Science, 2006, 312, 1139b-1139b.	12.6	13
78	Highly siderophile element abundances in Eoarchean komatiite and basalt protoliths. Contributions To Mineralogy and Petrology, 2016, 171, 1.	3.1	9
79	Tracing the Early Emergence of Microbial Sulfur Metabolisms. Geomicrobiology Journal, 2021, 38, 66-86.	2.0	9
80	Eoarchean subduction-like magmatism recorded in 3750ÂMa maficâ€“ultramafic rocks of the Ukaliq supracrustal belt (QuÃ©bec). Contributions To Mineralogy and Petrology, 2022, 177, 1.	3.1	9
81	Mars in the aftermath of a colossal impact. Icarus, 2019, 333, 87-95.	2.5	8
82	Widespread poly-metamorphosed Archean granitoid gneisses and supracrustal enclaves of the southern Inukjuak Domain, QuÃ©bec (Canada). Lithos, 2020, 364-365, 105520.	1.4	8
83	Effects of pebble accretion on the growth and composition of planetesimals in the inner Solar system. Monthly Notices of the Royal Astronomical Society, 2022, 511, 158-175.	4.4	6
84	Leftover lithosphere. Nature Geoscience, 2010, 3, 148-149.	12.9	5
85	A new estimate for the age of highly-siderophile element retention in the lunar mantle from late accretion. Icarus, 2021, 361, 114389.	2.5	5
86	Habitable potentials. Nature Astronomy, 2021, 5, 1083-1085.	10.1	5
87	Europium as a lodestar: diagnosis of radiogenic heat production in terrestrial exoplanets. Astronomy and Astrophysics, 2020, 644, A19.	5.1	5
88	Geochemical and textural investigations of the Eoarchean Ukaliq supracrustals, Northern QuÃ©bec (Canada). Lithos, 2020, 372-373, 105673.	1.4	4
89	A Model Earth-sized Planet in the Habitable Zone of Î± Centauri A/B. Astrophysical Journal, 2022, 927, 134.	4.5	4
90	Detailed chemical compositions of planet-hosting stars: II. Exploration of the interiors of terrestrial-type exoplanets. Monthly Notices of the Royal Astronomical Society, 0, , .	4.4	4

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91	<title>Early Mars and early Earth: paleoenvironments for the emergence of life</title>. , 1997, , .		3
92	Accretion to Earth and Moon â^¼3.85 Ga. , 2001, , 423-446.		3
93	Probing early atmospheres. Nature, 2003, 425, 249-250.	27.8	3
94	Thermal effects of late accretion to the crust and mantle of Mercury. Earth and Planetary Science Letters, 2018, 482, 536-544.	4.4	3
95	Spontaneous Formation of Prebiotic Compartment Colonies on Hadean Earth and Preâ€Noachian Mars**. ChemSystemsChem, 2022, 4, .	2.6	3
96	The first billion years: new insights from geochemistry. Precambrian Research, 2004, 135, 245-250.	2.7	2
97	Evidence of a primordial isotopic gradient in the inner region of the solar protoplanetary disc. Astronomy and Astrophysics, 2022, 660, A36.	5.1	2
98	The Great Mars Climate Paradox Redux: REPLY. Geology, 2017, 45, e410-e410.	4.4	1
99	The Assean Lake Complex. , 2019, , 703-722.		0
100	Earth, Formation, and Early Evolution. , 2021, , 1-10.		0
101	Reply: The Isua (Greenland) â€œrelict stromatolitesâ€•cannot be confidently interpreted as original sedimentary structures. Earth and Planetary Science Letters, 2021, 562, 116851.	4.4	0
102	Earth, Formation and Early Evolution. , 2014, , 1-11.		0
103	Earth, Formation and Early Evolution. , 2015, , 689-698.		0
104	Spontaneous Formation of Prebiotic Compartment Colonies on Hadean Earth and Preâ€Noachian Mars. ChemSystemsChem, 2022, 4, .	2.6	0