Aaron J Cavosie

List of Publications by Year
in descending order

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59	3,119	159585	155660
papers	citations	30 h-index	55 g-index

62	62	62	2068
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Origin of Î²-cristobalite in Libyan Desert Glass: The hottest naturally occurring silica polymorph?. American Mineralogist, 2022, 107, 1325-1340.	1.9	3
2	Granular titanite from the Roter Kamm crater in Namibia: Product of regional metamorphism, not meteorite impact. Geoscience Frontiers, 2022, 13, 101350.	8.4	3
3	Impact and habitability scenarios for early Mars revisited based on a 4.45-Ga shocked zircon in regolith breccia. Science Advances, 2022, 8, eabl7497.	10.3	8
4	Empirical constraints on progressive shock metamorphism of magnetite from the Siljan impact structure, Sweden. Geology, 2022, 50, 377-382.	4.4	2
5	Strontium isotope analysis of apatite via SIMS. Chemical Geology, 2021, 559, 119979.	3.3	14
6	Dendritic reidite from the Chesapeake Bay impact horizon, Ocean Drilling Program Site 1073 (offshore) Tj ETQq0 0 0 rgBT /Overlock 10	4.4	7
7	Asymmetric shock deformation at the Spider impact structure, Western Australia. Meteoritics and Planetary Science, 2021, 56, 331-351.	1.6	5
8	Stirred not shaken; critical evaluation of a proposed Archean meteorite impact in West Greenland. Earth and Planetary Science Letters, 2021, 557, 116730.	4.4	8
9	Shock deformation microstructures in xenotime from the Spider impact structure, Western Australia. , 2021, , .		2
10	Shock-twinned zircon in ejecta from the 45-m-diameter Kamil crater in southern Egypt. , 2021, , 419-430.		2
11	Extreme plastic deformation and subsequent Pb loss in shocked xenotime from the Vredefort Dome, South Africa. , 2021, , .		1
12	Australian impact cratering record: Updates and recent discoveries. , 2021, , 41-68.		4
13	A new method for dating impact events â€“ Thermal dependency on nanoscale Pb mobility in monazite shock twins. Geochimica Et Cosmochimica Acta, 2021, 314, 381-396.	3.9	13
14	Shock impedance amplified impact deformation of zircon in granitic rocks from the Chicxulub impact crater. Earth and Planetary Science Letters, 2021, 575, 117201.	4.4	15
15	Isotopic modelling of Archean crustal evolution from comagmatic zirconâ€“apatite pairs. Earth and Planetary Science Letters, 2021, 575, 117194.	4.4	6
16	Highâ€resolution microstructural and compositional analyses of shock deformed apatite from the peak ring of the Chicxulub impact crater. Meteoritics and Planetary Science, 2020, 55, .	1.6	17
17	Shocked titanite records Chicxulub hydrothermal alteration and impact age. Geochimica Et Cosmochimica Acta, 2020, 281, 12-30.	3.9	20
18	Novel Applications of FIB-SEM-Based ToF-SIMS in Atom Probe Tomography Workflows. Microscopy and Microanalysis, 2020, 26, 750-757.	0.4	32

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19	Precise radiometric age establishes Yarrabubba, Western Australia, as Earthâ€™s oldest recognised meteorite impact structure. Nature Communications, 2020, 11, 300.	12.8	44
20	A Nanoscale Record of Impact-Induced Pb Mobility in Lunar Zircon. Microscopy and Microanalysis, 2019, 25, 2448-2449.	0.4	8
21	Linking shock textures revealed by BSE, CL, and EBSD with Uâ€Pb data (LAâ€ICPâ€MS and SIMS) from zircon from the Araguainha impact structure, Brazil. Meteoritics and Planetary Science, 2019, 54, 2286-2311.	1.6	21
22	Untying microscopic Gordian knots: The granular (zircon) details of impact basins. Geology, 2019, 47, 799-800.	4.4	0
23	Overestimation of threat from 100 Mtâ€“class airbursts? High-pressure evidence from zircon in Libyan Desert Glass. Geology, 2019, 47, 609-612.	4.4	20
24	New shock microstructures in titanite (CaTiSiO5) from the peak ring of the Chicxulub impact structure, Mexico. Contributions To Mineralogy and Petrology, 2019, 174, 1.	3.1	22
25	Detrital shocked zircon provides first radiometric age constraint (<1472 Ma) for the Santa Fe impact structure, New Mexico, USA. Bulletin of the Geological Society of America, 2019, 131, 845-863.	3.3	13
26	Shocked quartz in polymict impact breccia from the Upper Cretaceous Yallalie impact structure in Western Australia. Meteoritics and Planetary Science, 2019, 54, 621-637.	1.6	10
27	The Oldest Terrestrial Mineral Record. , 2019, , 255-278.		8
28	Microstructural dynamics of central uplifts: Reidite offset by zircon twins at the Woodleigh impact structure, Australia. Geology, 2018, 46, 983-986.	4.4	33
29	New clues from Earthâ€™s most elusive impact crater: Evidence of reidite in Australasian tektites from Thailand. Geology, 2018, 46, 203-206.	4.4	41
30	FRIGN zirconâ€”The only terrestrial mineral diagnostic of high-pressure and high-temperature shock deformation. Geology, 2018, 46, 891-894.	4.4	55
31	The Enduring Mystery of Australasian Tektites. Elements, 2018, 14, 212-213.	0.5	3
32	Microstructural constraints on the mechanisms of the transformation to reidite in naturally shocked zircon. Contributions To Mineralogy and Petrology, 2017, 172, 1.	3.1	64
33	Shocked monazite chronometry: integrating microstructural and in situ isotopic age data for determining precise impact ages. Contributions To Mineralogy and Petrology, 2017, 172, 1.	3.1	44
34	Fluvial transport of impact evidence from cratonic interior to passive margin: Vredefort-derived shocked zircon on the Atlantic coast of South Africak. American Mineralogist, 2017, 102, 813-823.	1.9	15
35	A pressure-temperature phase diagram for zircon at extreme conditions. Earth-Science Reviews, 2017, 165, 185-202.	9.1	128
36	Cubic zirconia in >2370â€‰Â°C impact melt records Earth's hottest crust. Earth and Planetary Science Letters, 2017, 477, 52-58.	4.4	41

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37	Transformations to granular zircon revealed: Twinning, reidite, and ZrO₂in shocked zircon from Meteor Crater (Arizona, USA). Geology, 2016, 44, 703-706.	4.4	55
38	Nanoscale deformation twinning in xenotime, a new shocked mineral, from the Santa Fe impact structure (New Mexico, USA). Geology, 2016, 44, 803-806.	4.4	16
39	Empirical constraints on shock features in monazite using shocked zircon inclusions. Geology, 2016, 44, 635-638.	4.4	38
40	Nano- and micro-geochronology in Hadean and Archean zircons by atom-probe tomography and SIMS: New tools for old minerals. American Mineralogist, 2015, 100, 1355-1377.	1.9	109
41	Nanoscale records of ancient shock deformation: Reidite (ZrSiO4) in sandstone at the Ordovician Rock Elm impact crater. Geology, 2015, 43, 315-318.	4.4	57
42	A terrestrial perspective on usingex situshocked zircons to date lunar impacts. Geology, 2015, 43, 999-1002.	4.4	80
43	Preservation of detrital shocked minerals derived from the 1.85 Ga Sudbury impact structure in modern alluvium and Holocene glacial deposits. Bulletin of the Geological Society of America, 2014, 126, 720-737.	3.3	40
44	Hadean age for a post-magma-ocean zircon confirmed by atom-probe tomography. Nature Geoscience, 2014, 7, 219-223.	12.9	451
45	Reconciling early impacts and the rise of life. Geology, 2014, 42, 463-464.	4.4	2
46	Identification and provenance determination of distally transported, Vredefort-derived shocked minerals in the Vaal River, South Africa using SEM and SHRIMP-RG techniques. Geochimica Et Cosmochimica Acta, 2013, 107, 170-188.	3.9	46
47	Correlating planar microstructures in shocked zircon from the Vredefort Dome at multiple scales: Crystallographic modeling, external and internal imaging, and EBSD structural analysis. American Mineralogist, 2013, 98, 53-65.	1.9	58
48	Li isotopes and trace elements as a petrogenetic tracer in zircon: insights from Archean TTGs and sanukitoids. Contributions To Mineralogy and Petrology, 2012, 163, 745-768.	3.1	78
49	The origin of high Î´18O zircons: marbles, megacrysts, and metamorphism. Contributions To Mineralogy and Petrology, 2011, 162, 961-974.	3.1	48
50	Sub-micron scale distributions of trace elements in zircon. Contributions To Mineralogy and Petrology, 2009, 158, 317-335.	3.1	79
51	Primitive oxygen-isotope ratio recorded in magmatic zircon from the Mid-Atlantic Ridge. American Mineralogist, 2009, 94, 926-934.	1.9	87
52	Ti-in-zircon thermometry: applications and limitations. Contributions To Mineralogy and Petrology, 2008, 156, 197-215.	3.1	371
53	Lithium in Jack Hills zircons: Evidence for extensive weathering of Earth's earliest crust. Earth and Planetary Science Letters, 2008, 272, 666-676.	4.4	178
54	Chapter 2.5 The Oldest Terrestrial Mineral Record: A Review of 4400 to 4000 Ma Detrital Zircons from Jack Hills, Western Australia. Neoproterozoic-Cambrian Tectonics, Global Change and Evolution: A Focus on South Western Gondwana, 2007, , 91-111.	0.2	53

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55	Radiation damage and alteration of zircon from a 3.3ÂGa porphyritic granite from the Jack Hills, Western Australia. Chemical Geology, 2007, 236, 92-111.	3.3	55
56	Correlated microanalysis of zircon: Trace element, Î´18O, and Uâ€“Thâ€“Pb isotopic constraints on the igneous origin of complex >3900Ma detrital grains. Geochimica Et Cosmochimica Acta, 2006, 70, 5601-5616.	3.9	158
57	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
58	Nanoscale occurrence of Pb in an Archean zircon. Geochimica Et Cosmochimica Acta, 2004, 68, 4679-4686.	3.9	55
59	Internal zoning and Uâ€“Thâ€“Pb chemistry of Jack Hills detrital zircons: a mineral record of early Archean to Mesoproterozoic (4348â€“1576Ma) magmatism. Precambrian Research, 2004, 135, 251-279.	2.7	168