Aaron J Cavosie

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/10473571/publications.pdf

Version: 2024-02-01

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	Hadean age for a post-magma-ocean zircon confirmed by atom-probe tomography. Nature Geoscience, 2014, 7, 219-223.	12.9	451
2	Ti-in-zircon thermometry: applications and limitations. Contributions To Mineralogy and Petrology, 2008, 156, 197-215.	3.1	371
3	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
4	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
5	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
6	A pressure-temperature phase diagram for zircon at extreme conditions. Earth-Science Reviews, 2017, 165, 185-202.	9.1	128
7	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
8	Primitive oxygen-isotope ratio recorded in magmatic zircon from the Mid-Atlantic Ridge. American Mineralogist, 2009, 94, 926-934.	1.9	87
9	A terrestrial perspective on usingex situshocked zircons to date lunar impacts. Geology, 2015, 43, 999-1002.	4.4	80
10	Sub-micron scale distributions of trace elements in zircon. Contributions To Mineralogy and Petrology, 2009, 158, 317-335.	3.1	79
11	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
12	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
13	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
14	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
15	Nanoscale occurrence of Pb in an Archean zircon. Geochimica Et Cosmochimica Acta, 2004, 68, 4679-4686.	3.9	55
16	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
17	Transformations to granular zircon revealed: Twinning, reidite, and ZrO₂in shocked zircon from Meteor Crater (Arizona, USA). Geology, 2016, 44, 703-706.	4.4	55
18	FRIGN zirconâ€”The only terrestrial mineral diagnostic of high-pressure and high-temperature shock deformation. Geology, 2018, 46, 891-894.	4.4	55

#	Article	IF	Citations
19	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
20	The origin of high Î´18O zircons: marbles, megacrysts, and metamorphism. Contributions To Mineralogy and Petrology, 2011, 162, 961-974.	3.1	48
21	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
22	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
23	Precise radiometric age establishes Yarrabubba, Western Australia, as Earthâ€™s oldest recognised meteorite impact structure. Nature Communications, 2020, 11, 300.	12.8	44
24	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
25	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
26	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
27	Empirical constraints on shock features in monazite using shocked zircon inclusions. Geology, 2016, 44, 635-638.	4.4	38
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	Novel Applications of FIB-SEM-Based ToF-SIMS in Atom Probe Tomography Workflows. Microscopy and Microanalysis, 2020, 26, 750-757.	0.4	32
30	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
31	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
32	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
33	Shocked titanite records Chicxulub hydrothermal alteration and impact age. Geochimica Et Cosmochimica Acta, 2020, 281, 12-30.	3.9	20
34	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
35	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
36	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

#	Article	IF	Citations
37	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
38	Strontium isotope analysis of apatite via SIMS. Chemical Geology, 2021, 559, 119979.	3.3	14
39	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
40	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
41	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
42	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
43	A Nanoscale Record of Impact-Induced Pb Mobility in Lunar Zircon. Microscopy and Microanalysis, 2019, 25, 2448-2449.	0.4	8
44	The Oldest Terrestrial Mineral Record. , 2019, , 255-278.		8
45	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
46	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
47	Dendritic reidite from the Chesapeake Bay impact horizon, Ocean Drilling Program Site 1073 (offshore) Tj ETQq1 1 0.784314 rgBT /O	4.4	7
48	Isotopic modelling of Archean crustal evolution from comagmatic zirconâ€“apatite pairs. Earth and Planetary Science Letters, 2021, 575, 117194.	4.4	6
49	Asymmetric shock deformation at the Spider impact structure, Western Australia. Meteoritics and Planetary Science, 2021, 56, 331-351.	1.6	5
50	Australian impact cratering record: Updates and recent discoveries. , 2021, , 41-68.		4
51	The Enduring Mystery of Australasian Tektites. Elements, 2018, 14, 212-213.	0.5	3
52	Origin of Î²-cristobalite in Libyan Desert Glass: The hottest naturally occurring silica polymorph?. American Mineralogist, 2022, 107, 1325-1340.	1.9	3
53	Granular titanite from the Roter Kamm crater in Namibia: Product of regional metamorphism, not meteorite impact. Geoscience Frontiers, 2022, 13, 101350.	8.4	3
54	Reconciling early impacts and the rise of life. Geology, 2014, 42, 463-464.	4.4	2

#	Article	IF	Citations
55	Shock deformation microstructures in xenotime from the Spider impact structure, Western Australia. , 2021, , .		2
56	Shock-twinned zircon in ejecta from the 45-m-diameter Kamil crater in southern Egypt. , 2021, , 419-430.		2
57	Empirical constraints on progressive shock metamorphism of magnetite from the Siljan impact structure, Sweden. Geology, 2022, 50, 377-382.	4.4	2
58	Extreme plastic deformation and subsequent Pb loss in shocked xenotime from the Vredefort Dome, South Africa. , 2021, , .		1
59	Untying microscopic Gordian knots: The granular (zircon) details of impact basins. Geology, 2019, 47, 799-800.	4.4	0