

Alan Jay Kaufman

List of Publications by Year in descending order

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112
papers

14,631
citations

23567

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23533

111
g-index

114
all docs

114
docs citations

114
times ranked

6084
citing authors

#	ARTICLE	IF	CITATIONS
1	A Neoproterozoic Snowball Earth. , 1998, 281, 1342-1346.		2,174
2	A Whiff of Oxygen Before the Great Oxidation Event?. Science, 2007, 317, 1903-1906.	12.6	822
3	The abundance of ^{13}C in marine organic matter and isotopic fractionation in the global biogeochemical cycle of carbon during the past 800 Ma. Chemical Geology, 1999, 161, 103-125.	3.3	700
4	The Sr, C and O isotopic evolution of Neoproterozoic seawater. Chemical Geology, 1999, 161, 37-57.	3.3	616
5	Sedimentary cycling and environmental change in the Late Proterozoic: Evidence from stable and radiogenic isotopes. Geochimica Et Cosmochimica Acta, 1992, 56, 1317-1329.	3.9	520
6	Pulsed oxidation and biological evolution in the Ediacaran Doushantuo Formation. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 3197-3202.	7.1	507
7	The Vendian record of Sr and C isotopic variations in seawater: Implications for tectonics and paleoclimate. Earth and Planetary Science Letters, 1993, 120, 409-430.	4.4	441
8	Experimental measurement of boron isotope fractionation in seawater. Earth and Planetary Science Letters, 2006, 248, 276-285.	4.4	348
9	Carbon isotope variability across the Ediacaran Yangtze platform in South China: Implications for a large surface-to-deep ocean ^{13}C gradient. Earth and Planetary Science Letters, 2007, 261, 303-320.	4.4	341
10	Late Archean Biospheric Oxygenation and Atmospheric Evolution. Science, 2007, 317, 1900-1903.	12.6	327
11	Isotopic compositions of carbonates and organic carbon from upper Proterozoic successions in Namibia: stratigraphic variation and the effects of diagenesis and metamorphism. Precambrian Research, 1991, 49, 301-327.	2.7	284
12	Isotopic evidence for Mesoarchaeon anoxia and changing atmospheric sulphur chemistry. Nature, 2007, 449, 706-709.	27.8	261
13	Integrated chemostratigraphy and biostratigraphy of the Windermere Supergroup, northwestern Canada: Implications for Neoproterozoic correlations and the early evolution of animals. Bulletin of the Geological Society of America, 1994, 106, 1281-1292.	3.3	259
14	Reconstructing Earth's surface oxidation across the Archean-Proterozoic transition. Geology, 2009, 37, 399-402.	4.4	247
15	The sulfur isotopic composition of Neoproterozoic seawater sulfate: implications for a snowball Earth?. Earth and Planetary Science Letters, 2002, 203, 413-429.	4.4	240
16	Pervasive oxygenation along late Archean ocean margins. Nature Geoscience, 2010, 3, 647-652.	12.9	233
17	Active Microbial Sulfur Disproportionation in the Mesoproterozoic. Science, 2005, 310, 1477-1479.	12.6	215
18	Isotopic Evidence for an Aerobic Nitrogen Cycle in the Latest Archean. Science, 2009, 323, 1045-1048.	12.6	214

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19	The Neoproterozoic Quruqtagh Group in eastern Chinese Tianshan: evidence for a post-Marinoan glaciation. <i>Precambrian Research</i> , 2004, 130, 1-26.	2.7	213
20	$\delta^{13}\text{C}$ stratigraphy of the Proterozoic Bylot Supergroup, Baffin Island, Canada: implications for regional lithostratigraphic correlations. <i>Canadian Journal of Earth Sciences</i> , 1999, 36, 313-332.	1.3	183
21	Stratigraphic investigations of carbon isotope anomalies and Neoproterozoic ice ages in Death Valley, California. <i>Bulletin of the Geological Society of America</i> , 2003, 115, 916-932.	3.3	176
22	Evaluating the role of microbial sulfate reduction in the early Archean using quadruple isotope systematics. <i>Earth and Planetary Science Letters</i> , 2009, 279, 383-391.	4.4	173
23	Neoproterozoic fossils in Mesoproterozoic rocks? Chemostratigraphic resolution of a biostratigraphic conundrum from the North China Platform. <i>Precambrian Research</i> , 1997, 84, 197-220.	2.7	172
24	High CO ₂ levels in the Proterozoic atmosphere estimated from analyses of individual microfossils. <i>Nature</i> , 2003, 425, 279-282.	27.8	164
25	Global events across the Mesoproterozoic–Neoproterozoic boundary: C and Sr isotopic evidence from Siberia. <i>Precambrian Research</i> , 2001, 111, 165-202.	2.7	163
26	The effect of rising atmospheric oxygen on carbon and sulfur isotope anomalies in the Neoproterozoic Johnnie Formation, Death Valley, USA. <i>Chemical Geology</i> , 2007, 237, 47-63.	3.3	150
27	A major perturbation of the carbon cycle before the Ghaub glaciation (Neoproterozoic) in Namibia: Prelude to snowball Earth?. <i>Geochemistry, Geophysics, Geosystems</i> , 2002, 3, 1-24.	2.5	141
28	Integrated chronostratigraphy of Proterozoic–Cambrian boundary beds in the western Anabar region, northern Siberia. <i>Geological Magazine</i> , 1996, 133, 509-533.	1.5	134
29	Biostratigraphic and chemostratigraphic correlation of Neoproterozoic sedimentary successions: Upper Tindir Group, northwestern Canada, as a test case. <i>Geology</i> , 1992, 20, 181.	4.4	130
30	Primary and diagenetic controls of isotopic compositions of iron-formation carbonates. <i>Geochimica Et Cosmochimica Acta</i> , 1990, 54, 3461-3473.	3.9	127
31	Stable isotope record of the terminal Neoproterozoic Krol platform in the Lesser Himalayas of northern India. <i>Precambrian Research</i> , 2006, 147, 156-185.	2.7	127
32	Extensive marine anoxia during the terminal Ediacaran Period. <i>Science Advances</i> , 2018, 4, eaan8983.	10.3	126
33	A unifying model for Neoproterozoic–Palaeozoic exceptional fossil preservation through pyritization and carbonaceous compression. <i>Nature Communications</i> , 2014, 5, 5754.	12.8	120
34	Biomarker Evidence for Photosynthesis During Neoproterozoic Glaciation. <i>Science</i> , 2005, 310, 471-474.	12.6	119
35	Was the Ediacaran Shuram Excursion a globally synchronized early diagenetic event? Insights from methane-derived authigenic carbonates in the uppermost Doushantuo Formation, South China. <i>Chemical Geology</i> , 2017, 450, 59-80.	3.3	115
36	Oxidation of pyrite during extraction of carbonate associated sulfate. <i>Chemical Geology</i> , 2008, 247, 124-132.	3.3	114

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37	Re-evaluating boron speciation in biogenic calcite and aragonite using ^{11}B MAS NMR. <i>Geochimica Et Cosmochimica Acta</i> , 2009, 73, 1890-1900.	3.9	113
38	Sustained low marine sulfate concentrations from the Neoproterozoic to the Cambrian: Insights from carbonates of northwestern Mexico and eastern California. <i>Earth and Planetary Science Letters</i> , 2012, 339-340, 79-94.	4.4	112
39	Chemostratigraphic correlation of Neoproterozoic successions in South America. <i>Chemical Geology</i> , 2007, 237, 143-167.	3.3	107
40	Redox architecture of an Ediacaran ocean margin: Integrated chemostratigraphic (^{13}C / ^{34}S / $^{87}\text{Sr}/^{86}\text{Sr}$ / $^{\text{Ce}}/\text{Ce}^*$) correlation of the Doushantuo Formation, South China. <i>Chemical Geology</i> , 2015, 405, 48-62.	3.3	98
41	Compositional evolution of the upper continental crust through time, as constrained by ancient glacial diamictites. <i>Geochimica Et Cosmochimica Acta</i> , 2016, 186, 316-343.	3.9	98
42	Integrated chemostratigraphy of the Doushantuo Formation at the northern Xiaofenghe section (Yangtze Gorges, South China) and its implication for Ediacaran stratigraphic correlation and ocean redox models. <i>Precambrian Research</i> , 2012, 192-195, 125-141.	2.7	93
43	Stratification and mixing of a post-glacial Neoproterozoic ocean: Evidence from carbon and sulfur isotopes in a cap dolostone from northwest China. <i>Earth and Planetary Science Letters</i> , 2008, 265, 209-228.	4.4	89
44	Evidence of magnetic isotope effects during thermochemical sulfate reduction. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 17635-17638.	7.1	85
45	Large sulfur isotope fractionations associated with Neoproterozoic microbial sulfate reduction. <i>Science</i> , 2014, 346, 742-744.	12.6	83
46	Carbonate platform growth and cyclicity at a terminal Proterozoic passive margin, Infra Krol Formation and Krol Group, Lesser Himalaya, India. <i>Sedimentology</i> , 2003, 50, 921-952.	3.1	82
47	Lithofacies control on multiple-sulfur isotope records and Neoproterozoic sulfur cycles. <i>Precambrian Research</i> , 2009, 169, 58-67.	2.7	81
48	Oxidative forcing of global climate change: A biogeochemical record across the oldest Paleoproterozoic ice age in North America. <i>Earth and Planetary Science Letters</i> , 2007, 258, 486-499.	4.4	79
49	Biostratigraphic and chemostratigraphic constraints on the age of early Neoproterozoic carbonate successions in North China. <i>Precambrian Research</i> , 2014, 246, 208-225.	2.7	77
50	Title is missing!. <i>Bulletin of the Geological Society of America</i> , 1996, 108, 0992.	3.3	76
51	Environmental and diagenetic variations in carbonate associated sulfate: An investigation of CAS in the Lower Triassic of the western USA. <i>Geochimica Et Cosmochimica Acta</i> , 2008, 72, 1570-1582.	3.9	76
52	Magnesium isotopic compositions of the Mesoproterozoic dolostones: Implications for Mg isotopic systematics of marine carbonates. <i>Geochimica Et Cosmochimica Acta</i> , 2015, 164, 333-351.	3.9	75
53	Sizing up the sub-Tommotian unconformity in Siberia. <i>Geology</i> , 1995, 23, 1139.	4.4	74
54	Carbon and sulfur isotope chemostratigraphy of the Neoproterozoic Quanji Group of the Chaidam Basin, NW China: Basin stratification in the aftermath of an Ediacaran glaciation postdating the Shuram event?. <i>Precambrian Research</i> , 2010, 177, 241-252.	2.7	70

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55	Sulfur isotope biogeochemistry of the Proterozoic McArthur Basin. <i>Geochimica Et Cosmochimica Acta</i> , 2008, 72, 4278-4290.	3.9	67
56	Extraction of Hydrocarbons from High-Maturity Marcellus Shale Using Supercritical Carbon Dioxide. <i>Energy & Fuels</i> , 2015, 29, 7897-7909.	5.1	65
57	Stratigraphic and tectonic implications of field and isotopic constraints on depositional ages of Proterozoic Lesser Himalayan rocks in central Nepal. <i>Precambrian Research</i> , 2011, 185, 1-17.	2.7	64
58	Phosphogenesis associated with the Shuram Excursion: Petrographic and geochemical observations from the Ediacaran Doushantuo Formation of South China. <i>Sedimentary Geology</i> , 2016, 341, 134-146.	2.1	62
59	Uranium isotope evidence for limited euxinia in mid-Proterozoic oceans. <i>Earth and Planetary Science Letters</i> , 2019, 521, 150-157.	4.4	61
60	Onset of oxidative weathering of continents recorded in the geochemistry of ancient glacial diamictites. <i>Earth and Planetary Science Letters</i> , 2014, 408, 87-99.	4.4	59
61	Identification of sources and formation processes of atmospheric sulfate by sulfur isotope and scanning electron microscope measurements. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	58
62	Radiometric and stratigraphic constraints on terminal Ediacaran (post-Gaskiers) glaciation and metazoan evolution. <i>Precambrian Research</i> , 2010, 182, 402-412.	2.7	57
63	Redox-dependent distribution of early macro-organisms: Evidence from the terminal Ediacaran Khatyspyt Formation in Arctic Siberia. <i>Palaeogeography, Palaeoclimatology, Palaeoecology</i> , 2016, 461, 122-139.	2.3	57
64	Ultrastructural and Geochemical Characterization of Archean "Paleoproterozoic Graphite Particles: Implications for Recognizing Traces of Life in Highly Metamorphosed Rocks. <i>Astrobiology</i> , 2007, 7, 684-704.	3.0	51
65	Widespread contamination of carbonate-associated sulfate by present-day secondary atmospheric sulfate: Evidence from triple oxygen isotopes. <i>Geology</i> , 2014, 42, 815-818.	4.4	49
66	Re "Os age constraints and new observations of Proterozoic glacial deposits in the Vazante Group, Brazil. <i>Precambrian Research</i> , 2013, 238, 199-213.	2.7	48
67	Sedimentology and chemostratigraphy of the terminal Ediacaran Dengying Formation at the Gaojianshan section, South China. <i>Geological Magazine</i> , 2019, 156, 1924-1948.	1.5	48
68	Stratigraphy, palaeontology and geochemistry of the late Neoproterozoic Aar Member, southwest Namibia: Reflecting environmental controls on Ediacara fossil preservation during the terminal Proterozoic in African Gondwana. <i>Precambrian Research</i> , 2013, 238, 214-232.	2.7	45
69	Chemostratigraphy of predominantly siliciclastic Neoproterozoic successions: a case study of the Pocatello Formation and Lower Brigham Group, Idaho, USA. <i>Geological Magazine</i> , 1994, 131, 301-314.	1.5	44
70	Geochemical and mineralogic effects of contact metamorphism on banded iron-formation: an example from the Transvaal Basin, South Africa. <i>Precambrian Research</i> , 1996, 79, 171-194.	2.7	44
71	Transient marine euxinia at the end of the terminal Cryogenian glaciation. <i>Nature Communications</i> , 2018, 9, 3019.	12.8	41
72	An ice age in the tropics. <i>Nature</i> , 1997, 386, 227-228.	27.8	40

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73	Carbon, sulfur, and oxygen isotope evidence for a strong depth gradient and oceanic oxidation after the Ediacaran Hankschough glaciation. <i>Geochimica Et Cosmochimica Acta</i> , 2011, 75, 1357-1373.	3.9	40
74	Sulfur isotope constraints on marine transgression in the lacustrine Upper Cretaceous Songliao Basin, northeastern China. <i>Palaeogeography, Palaeoclimatology, Palaeoecology</i> , 2016, 451, 152-163.	2.3	40
75	Isotope stratigraphy of the Lapa Formation, São Francisco Basin, Brazil: Implications for Late Neoproterozoic glacial events in South America. <i>Precambrian Research</i> , 2006, 149, 231-248.	2.7	39
76	Experimental evaluation of the isotopic exchange equilibrium $10\text{B}(\text{OH})_3 + 11\text{B}(\text{OH})_4^- \rightleftharpoons 11\text{B}(\text{OH})_3 + 10\text{B}(\text{OH})_4^-$ in aqueous solution. <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , 2006, 53, 684-688.	1.4	35
77	Local $\delta^{34}\text{S}$ variability in $\sim 4580\text{Ma}$ carbonates of northwestern Mexico and the Neoproterozoic marine sulfate reservoir. <i>Precambrian Research</i> , 2013, 224, 551-569.	2.7	35
78	Proterozoic carbonates of the Vindhyan Basin, India: Chemostratigraphy and diagenesis. <i>Gondwana Research</i> , 2018, 57, 10-25.	6.0	33
79	The Neoproterozoic Hattenberg $\delta^{13}\text{C}$ anomaly: Genesis and global implications. <i>Precambrian Research</i> , 2018, 313, 242-262.	2.7	30
80	Integrated Ediacaran chronostratigraphy, Wernecke Mountains, northwestern Canada. <i>Precambrian Research</i> , 2004, 132, 1-27.	2.7	26
81	Carbon and nitrogen isotopic analysis of Pleistocene mammals from the Saltville Quarry (Virginia). <i>Geology</i> , 2007, 249, 271-282.	2.3	25
82	Quo vadis, Tommotian?. <i>Geological Magazine</i> , 2020, 157, 22-34.	1.5	23
83	Deposition or diagenesis? Probing the Ediacaran Shuram excursion in South China by SIMS. <i>Global and Planetary Change</i> , 2021, 206, 103591.	3.5	23
84	Paleo-climatic and paleo-environmental evolution of the Neoproterozoic basal sedimentary cover on the Río de La Plata Craton, Argentina: Insights from the $\delta^{13}\text{C}$ chemostratigraphy. <i>Sedimentary Geology</i> , 2017, 353, 139-157.	2.1	22
85	Using Chemostratigraphy to Correlate and Calibrate Unconformities in Neoproterozoic Strata from the Southern Great Basin of the United States. <i>International Geology Review</i> , 2000, 42, 516-533.	2.1	21
86	Cyanobacteria at work. <i>Nature Geoscience</i> , 2014, 7, 253-254.	12.9	21
87	Paleoenvironmental implications of two phosphogenic events in Neoproterozoic sedimentary successions of the Tandilia System, Argentina. <i>Precambrian Research</i> , 2014, 252, 88-106.	2.7	21
88	Chapter 48 Neoproterozoic successions of the São Francisco Craton, Brazil: the Bambuí, Una, Vazante and Vaza Barris/Miaba groups and their glaciogenic deposits. <i>Geological Society Memoir</i> , 2011, 36, 509-522.	1.7	20
89	Preglacial palaeoenvironmental evolution of the Ediacaran Loma Negra Formation, far southwestern Gondwana, Argentina. <i>Precambrian Research</i> , 2018, 315, 120-137.	2.7	20
90	Heavy cosmic-ray exposure of Apollo astronauts. <i>Science</i> , 1975, 187, 263-265.	12.6	19

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91	Strontium isotope stratigraphy of the Gabbs Formation (Nevada): implications for global Norian–Rhaetian correlations and faunal turnover. <i>Lethaia</i> , 2014, 47, 500-511.	1.4	19
92	The relationship between the Neoproterozoic Noonday Dolomite and the Ibx Formation: New observations and their bearing on “snowball Earth”™. <i>Earth-Science Reviews</i> , 2005, 73, 63-78.	9.1	18
93	Sulfur isotope and chemical compositions of the wet precipitation in two major urban areas, Seoul and Busan, Korea. <i>Journal of Asian Earth Sciences</i> , 2014, 79, 415-425.	2.3	18
94	Effects of bioturbation on carbon and sulfur cycling across the Ediacaran–Cambrian transition at the GSSP in Newfoundland, Canada. <i>Canadian Journal of Earth Sciences</i> , 2018, 55, 1240-1252.	1.3	18
95	Primary or secondary? A dichotomy of the strontium isotope anomalies in the Ediacaran carbonates of Saudi Arabia. <i>Precambrian Research</i> , 2020, 343, 105720.	2.7	18
96	Sedimentological and mineralogical records from drill core SKD1 in the Jiangnan Basin, Central China, and their implications for late Cretaceous–early Eocene climate change. <i>Journal of Asian Earth Sciences</i> , 2019, 182, 103936.	2.3	17
97	Using SIMS to decode noisy stratigraphic $\delta^{13}\text{C}$ variations in Ediacaran carbonates. <i>Precambrian Research</i> , 2020, 343, 105686.	2.7	13
98	Dynamic interplay of biogeochemical C, S and Ba cycles in response to the Shuram oxygenation event. <i>Journal of the Geological Society</i> , 2022, 179, .	2.1	12
99	A transient peak in marine sulfate after the 635-Ma snowball Earth. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, e2117341119.	7.1	12
100	Coupled isotopic evidence for elevated $p\text{CO}_2$ and nitrogen limitation across the Santonian-Campanian transition. <i>Chemical Geology</i> , 2019, 504, 136-150.	3.3	11
101	Sulfur, oxygen, and hydrogen isotope compositions of precipitation in Seoul, South Korea. <i>Geochemical Journal</i> , 2012, 46, 443-457.	1.0	9
102	Southeastern Tanzania depositional environments, marine and terrestrial links, and exceptional microfossil preservation in the warm Turonian. <i>Bulletin of the Geological Society of America</i> , 2017, 129, 515-533.	3.3	9
103	An authigenic response to Ediacaran surface oxidation: Remarkable micron-scale isotopic heterogeneity revealed by SIMS. <i>Precambrian Research</i> , 2022, 377, 106676.	2.7	8
104	Chemostratigraphy of Neoproterozoic-Cambrian Units, White-Inyo Region, Eastern California and Western Nevada: Implications for Global Correlation and Faunal Distribution. <i>Palaeos</i> , 1996, 11, 83.	1.3	5
105	Slush find. <i>Nature</i> , 2007, 450, 807-808.	27.8	4
106	PROBING AN ATYPICAL SHURAM EXCURSION BY SIMS. , 2019, , .		3
107	The sulfur isotopic consequence of seawater sulfate distillation preserved in the Neoproterozoic Sete Lagoas post-glacial carbonate, eastern Brazil. <i>Journal of the Geological Society</i> , 2022, 179, .	2.1	3
108	Sizing up the sub-Tommotian unconformity in Siberia: Comment and Reply. <i>Geology</i> , 1996, 24, 860.	4.4	2

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109	Corumba Meeting 2013: The Neoproterozoic Paraguay Fold Belt (Brazil): Glaciation, iron-manganese formation and biota, an IGCP Workshop and Field Excursion on the Ediacaran system. Episodes, 2014, 37, 71-73.	1.2	2
110	Field workshop on the Ediacaran Nama Group of southern Namibia. Episodes, 2017, 40, 259-261.	1.2	2
111	Sizing up the sub-Tommotian unconformity in Siberia: Comment and Reply. Geology, 1997, 25, 286.	4.4	1
112	International Conference on Neoproterozoic Sedimentary Basins, Neoproterozoic Subcommittee Workshop on Ediacaran Paleobiology, and IGCP Field Excursion to the East Sayan Mountain Range. Episodes, 2011, 34, 273-275.	1.2	1