Alan Jay Kaufman

List of Publications by Citations

108 papers	11,831 citations	52 h-index	108 g-index
114 ext. papers	13,108 ext. citations	8.2 avg, IF	6.09 L-index

#	Paper	IF	Citations
108	A neoproterozoic snowball earth. *Science*, **1998**, 281, 1342-6	33.3	1690
107	A whiff of oxygen before the great oxidation event?. *Science*, **2007**, 317, 1903-6	33.3	658
106	The abundance of 13C 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	4.2	557
105	The Sr, C and O isotopic evolution of Neoproterozoic seawater. *Chemical Geology*, **1999**, 161, 37-57	4.2	518
104	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, 3197-202	11.5	435
103	Sedimentary cycling and environmental change in the Late Proterozoic: Evidence from stable and radiogenic isotopes. *Geochimica Et Cosmochimica Acta*, **1992**, 56, 1317-1329	5.5	430
102	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	5.3	365
101	Carbon isotope variability across the Ediacaran Yangtze platform in South China: Implications for a large surface-to-deep ocean δ13C gradient. *Earth and Planetary Science Letters*, **2007**, 261, 303-320	5.3	294
100	Experimental measurement of boron isotope fractionation in seawater. *Earth and Planetary Science Letters*, **2006**, 248, 276-285	5.3	286
99	Late Archean biospheric oxygenation and atmospheric evolution. *Science*, **2007**, 317, 1900-3	33.3	281
98	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, 301-27	3.9	256
97	Isotopic evidence for Mesoarchaean anoxia and changing atmospheric sulphur chemistry. *Nature*, **2007**, 449, 706-9	50.4	220
96	Reconstructing Earth's surface oxidation across the Archean-Proterozoic transition. *Geology*, **2009**, 37, 399-402	5	210
95	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, 1281-92	3.9	206
94	Pervasive oxygenation along late Archaean ocean margins. *Nature Geoscience*, **2010**, 3, 647-652	18.3	199
93	The sulfur isotopic composition of Neoproterozoic seawater sulfate: implications for a snowball Earth?. *Earth and Planetary Science Letters*, **2002**, 203, 413-429	5.3	197
92	The Neoproterozoic Quruqtagh Group in eastern Chinese Tianshan: evidence for a post-Marinoan glaciation. *Precambrian Research*, **2004**, 130, 1-26	3.9	178

91	Active microbial sulfur disproportionation in the Mesoproterozoic. *Science*, **2005**, 310, 1477-9	33.3	177
90	Isotopic evidence for an aerobic nitrogen cycle in the latest Archean. *Science*, **2009**, 323, 1045-8	33.3	175
89	Stratigraphic investigations of carbon isotope anomalies and Neoproterozoic ice ages in Death Valley, California. *Bulletin of the Geological Society of America*, **2003**, 115, 916-932	3.9	152
88	δ13C stratigraphy of the Proterozoic Bylot Supergroup, Baffin Island, Canada: implications for regional lithostratigraphic correlations. *Canadian Journal of Earth Sciences*, **1999**, 36, 313-332	1.5	152
87	Neoproterozoic fossils in Mesoproterozoic rocks? Chemostratigraphic resolution of a biostratigraphic conundrum from the North China Platform. *Precambrian Research*, **1997**, 84, 197-220	3.9	151
86	Evaluating the role of microbial sulfate reduction in the early Archean using quadruple isotope systematics. *Earth and Planetary Science Letters*, **2009**, 279, 383-391	5.3	143
85	Global events across the Mesoproterozoic–Neoproterozoic boundary: C and Sr isotopic evidence from Siberia. *Precambrian Research*, **2001**, 111, 165-202	3.9	137
84	High CO2 levels in the Proterozoic atmosphere estimated from analyses of individual microfossils. *Nature*, **2003**, 425, 279-82	50.4	132
83	The effect of rising atmospheric oxygen on carbon and sulfur isotope anomalies in the Neoproterozoic Johnnie Formation, Death Valley, USA. *Chemical Geology*, **2007**, 237, 47-63	4.2	125
82	A major perturbation of the carbon cycle before the Ghaub glaciation (Neoproterozoic) in Namibia: Prelude to snowball Earth?. *Geochemistry, Geophysics, Geosystems*, **2002**, 3, 1-24	3.6	121
81	Integrated chronostratigraphy of Proterozoic-Cambrian boundary beds in the western Anabar region, northern Siberia. *Geological Magazine*, **1996**, 133, 509-33	2	117
80	Stable isotope record of the terminal Neoproterozoic Krol platform in the Lesser Himalayas of northern India. *Precambrian Research*, **2006**, 147, 156-185	3.9	111
79	Primary and diagenetic controls of isotopic compositions of iron-formation carbonates. *Geochimica Et Cosmochimica Acta*, **1990**, 54, 3461-73	5.5	111
78	Biostratigraphic and chemostratigraphic correlation of Neoproterozoic sedimentary successions: upper Tindir Group, northwestern Canada, as a test case. *Geology*, **1992**, 20, 181-5	5	107
77	Re-evaluating boron speciation in biogenic calcite and aragonite using 11B MAS NMR. *Geochimica Et Cosmochimica Acta*, **2009**, 73, 1890-1900	5.5	100
76	Biomarker evidence for photosynthesis during neoproterozoic glaciation. *Science*, **2005**, 310, 471-4	33.3	98
75	A unifying model for Neoproterozoic-Palaeozoic exceptional fossil preservation through pyritization and carbonaceous compression. *Nature Communications*, **2014**, 5, 5754	17.4	97
74	Oxidation of pyrite during extraction of carbonate associated sulfate. *Chemical Geology*, **2008**, 247, 124-132	4.2	94

73	Chemostratigraphic correlation of Neoproterozoic successions in South America. *Chemical Geology*, **2007**, 237, 143-167	4.2	93
72	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. *Precambrian Research*, **2012**, 192-195, 125-141	3.9	85
71	Sustained low marine sulfate concentrations from the Neoproterozoic to the Cambrian: Insights from carbonates of northwestern Mexico and eastern California. *Earth and Planetary Science Letters* , **2012**, 339-340, 79-94	5.3	85
70	Was the Ediacaran Shuram Excursion a globally synchronized early diagenetic event? Insights from methane-derived authigenic carbonates in the uppermost Doushantuo Formation, South China. *Chemical Geology*, **2017**, 450, 59-80	4.2	82
69	Extensive marine anoxia during the terminal Ediacaran Period. *Science Advances*, **2018**, 4, eaan8983	14.3	82
68	Redox architecture of an Ediacaran ocean margin: Integrated chemostratigraphic (δ13C-δ34S-87Sr/86Sr-Ce/Ce*) correlation of the Doushantuo Formation, South China. *Chemical Geology*, **2015**, 405, 48-62	4.2	80
67	Stratification and mixing of a post-glacial Neoproterozoic ocean: Evidence from carbon and sulfur isotopes in a cap dolostone from northwest China. *Earth and Planetary Science Letters*, **2008**, 265, 209-228	5.3	77
66	Evidence of magnetic isotope effects during thermochemical sulfate reduction. *Proceedings of the National Academy of Sciences of the United States of America*, **2011**, 108, 17635-8	11.5	71
65	Lithofacies control on multiple-sulfur isotope records and Neoarchean sulfur cycles. *Precambrian Research*, **2009**, 169, 58-67	3.9	71
64	Oxidative forcing of global climate change: A biogeochemical record across the oldest Paleoproterozoic ice age in North America. *Earth and Planetary Science Letters*, **2007**, 258, 486-499	5.3	69
63	Large sulfur isotope fractionations associated with Neoarchean microbial sulfate reduction. *Science* , **2014**, 346, 742-4	33.3	67
62	Carbonate platform growth and cyclicity at a terminal Proterozoic passive margin, Infra Krol Formation and Krol Group, Lesser Himalaya, India. *Sedimentology*, **2003**, 50, 921-952	3.3	66
61	Environmental and diagenetic variations in carbonate associated sulfate: An investigation of CAS in the Lower Triassic of the western USA. *Geochimica Et Cosmochimica Acta*, **2008**, 72, 1570-1582	5.5	65
60	Compositional evolution of the upper continental crust through time, as constrained by ancient glacial diamictites. *Geochimica Et Cosmochimica Acta*, **2016**, 186, 316-343	5.5	62
59	Biostratigraphic and chemostratigraphic constraints on the age of early Neoproterozoic carbonate successions in North China. *Precambrian Research*, **2014**, 246, 208-225	3.9	59
58	Sizing up the sub-Tommotian unconformity in Siberia. *Geology*, **1995**, 23, 1139-43	5	57
57	Evaluation of δ13C chemostratigraphy for intrabasinal correlation: Vendian strata of northeast Siberia. *Bulletin of the Geological Society of America*, **1996**, 108, 0992	3.9	56
56	Magnesium isotopic compositions of the Mesoproterozoic dolostones: Implications for Mg isotopic systematics of marine carbonates. *Geochimica Et Cosmochimica Acta*, **2015**, 164, 333-351	5.5	51

55	Stratigraphic and tectonic implications of field and isotopic constraints on depositional ages of Proterozoic Lesser Himalayan rocks in central Nepal. *Precambrian Research*, **2011**, 185, 1-17	3.9	50
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?. *Precambrian Research*, **2010**, 177, 241-252	3.9	50
53	Extraction of Hydrocarbons from High-Maturity Marcellus Shale Using Supercritical Carbon Dioxide. *Energy & Fuels*, **2015**, 29, 7897-7909	4.1	49
52	Sulfur isotope biogeochemistry of the Proterozoic McArthur Basin. *Geochimica Et Cosmochimica Acta*, **2008**, 72, 4278-4290	5.5	49
51	Phosphogenesis associated with the Shuram Excursion: Petrographic and geochemical observations from the Ediacaran Doushantuo Formation of South China. *Sedimentary Geology*, **2016**, 341, 134-146	2.8	48
50	Identification of sources and formation processes of atmospheric sulfate by sulfur isotope and scanning electron microscope measurements. *Journal of Geophysical Research*, **2010**, 115,		46
49	Radiometric and stratigraphic constraints on terminal Ediacaran (post-Gaskiers) glaciation and metazoan evolution. *Precambrian Research*, **2010**, 182, 402-412	3.9	46
48	Onset of oxidative weathering of continents recorded in the geochemistry of ancient glacial diamictites. *Earth and Planetary Science Letters*, **2014**, 408, 87-99	5.3	44
47	Redox-dependent distribution of early macro-organisms: Evidence from the terminal Ediacaran Khatyspyt Formation in Arctic Siberia. *Palaeogeography, Palaeoclimatology, Palaeoecology*, **2016**, 461, 122-139	2.9	42
46	Ultrastructural and geochemical characterization of Archean-Paleoproterozoic graphite particles: implications for recognizing traces of life in highly metamorphosed rocks. *Astrobiology*, **2007**, 7, 684-704	3.7	41
45	Uranium isotope evidence for limited euxinia in mid-Proterozoic oceans. *Earth and Planetary Science Letters*, **2019**, 521, 150-157	5.3	37
44	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. *Precambrian Research*, **2013**, 238, 214-232	3.9	37
43	Widespread contamination of carbonate-associated sulfate by present-day secondary atmospheric sulfate: Evidence from triple oxygen isotopes. *Geology*, **2014**, 42, 815-818	5	37
42	Isotope stratigraphy of the Lapa Formation, S□ Francisco Basin, Brazil: Implications for Late Neoproterozoic glacial events in South America. *Precambrian Research*, **2006**, 149, 231-248	3.9	37
41	Chemostratigraphy of predominantly siliciclastic Neoproterozoic successions: a case study of the Pocatello Formation and Lower Brigham Group, Idaho, USA. *Geological Magazine*, **1994**, 131, 301-14	2	37
40	Re□Os age constraints and new observations of Proterozoic glacial deposits in the Vazante Group, Brazil. *Precambrian Research*, **2013**, 238, 199-213	3.9	36
39	Sedimentology and chemostratigraphy of the terminal Ediacaran Dengying Formation at the Gaojiashan section, South China. *Geological Magazine*, **2019**, n/a,	2	34
38	Geochemical and mineralogic effects of contact metamorphism on banded iron-formation: an example from the Transvaal Basin, South Africa. *Precambrian Research*, **1996**, 79, 171-194	3.9	34

37	Carbon, sulfur, and oxygen isotope evidence for a strong depth gradient and oceanic oxidation after the Ediacaran Hankalchough glaciation. *Geochimica Et Cosmochimica Acta*, **2011**, 75, 1357-1373	5.5	32
36	Experimental evaluation of the isotopic exchange equilibrium 10B(OH)3+11B(OH)4−11B(OH)3+10B(OH)4in aqueous solution. *Deep-Sea Research Part I: Oceanographic Research Papers*, **2006**, 53, 684-688	2.5	32
35	Sulfur isotope constraints on marine transgression in the lacustrine Upper Cretaceous Songliao Basin, northeastern China. *Palaeogeography, Palaeoclimatology, Palaeoecology*, **2016**, 451, 152-163	2.9	27
34	Local δ34S variability in ~580 Ma carbonates of northwestern Mexico and the Neoproterozoic marine sulfate reservoir. *Precambrian Research*, **2013**, 224, 551-569	3.9	27
33	Integrated Ediacaran chronostratigraphy, Wernecke Mountains, northwestern Canada. *Precambrian Research*, **2004**, 132, 1-27	3.9	25
32	Proterozoic carbonates of the Vindhyan Basin, India: Chemostratigraphy and diagenesis. *Gondwana Research*, **2018**, 57, 10-25	5.1	23
31	The Neoproterozoic Hüttenberg δ13C anomaly: Genesis and global implications. *Precambrian Research*, **2018**, 313, 242-262	3.9	23
30	Transient marine euxinia at the end of the terminal Cryogenian glaciation. *Nature Communications*, **2018**, 9, 3019	17.4	21
29	Carbon and nitrogen isotopic analysis of Pleistocene mammals from the Saltville Quarry (Virginia, USA): Implications for trophic relationships. *Palaeogeography, Palaeoclimatology, Palaeoecology*, **2007**, 249, 271-282	2.9	21
28	Geology. The calibration of Ediacaran time. *Science*, **2005**, 308, 59-60	33.3	18
27	The relationship between the Neoproterozoic Noonday Dolomite and the Ibex Formation: New observations and their bearing on Snowball Earth. *Earth-Science Reviews*, **2005**, 73, 63-78	10.2	17
26	Using Chemostratigraphy to Correlate and Calibrate Unconformities in Neoproterozoic Strata from the Southern Great Basin of the United States. *International Geology Review*, **2000**, 42, 516-533	2.3	17
25	Paleo-climatic and paleo-environmental evolution of the Neoproterozoic basal sedimentary cover on the Río de La Plata Craton, Argentina: Insights from the δ13 C chemostratigraphy. *Sedimentary Geology*, **2017**, 353, 139-157	2.8	15
24	Paleoenvironmental implications of two phosphogenic events in Neoproterozoic sedimentary successions of the Tandilia System, Argentina. *Precambrian Research*, **2014**, 252, 88-106	3.9	15
23	Sulfur isotope and chemical compositions of the wet precipitation in two major urban areas, Seoul and Busan, Korea. *Journal of Asian Earth Sciences*, **2014**, 79, 415-425	2.8	15
22	Primary or secondary? A dichotomy of the strontium isotope anomalies in the Ediacaran carbonates of Saudi Arabia. *Precambrian Research*, **2020**, 343, 105720	3.9	14
21	Chapter 48 Neoproterozoic successions of the São Francisco Craton, Brazil: the Bambuí, Una, Vazante and Vaza Barris/Miaba groups and their glaciogenic deposits. *Geological Society Memoir*, **2011**, 36, 509-522	0.4	14
20	Preglacial palaeoenvironmental evolution of the Ediacaran Loma Negra Formation, far southwestern Gondwana, Argentina. *Precambrian Research*, **2018**, 315, 120-137	3.9	13

19	Effects of bioturbation on carbon and sulfur cycling across the Ediacaran–Cambrian transition at the GSSP in Newfoundland, Canada. *Canadian Journal of Earth Sciences*, **2018**, 55, 1240-1252	1.5	12
18	Strontium isotope stratigraphy of the Gabbs Formation (Nevada): implications for global Norian–Rhaetian correlations and faunal turnover. *Lethaia*, **2014**, 47, 500-511	1.3	11
17	Quo vadis, Tommotian?. *Geological Magazine*, **2020**, 157, 22-34	2	10
16	Using SIMS to decode noisy stratigraphic δ13C variations in Ediacaran carbonates. *Precambrian Research*, **2020**, 343, 105686	3.9	9
15	Sedimentological and mineralogical records from drill core SKD1 in the Jianghan Basin, Central China, and their implications for late Cretaceous–Early Eocene climate change. *Journal of Asian Earth Sciences*, **2019**, 182, 103936	2.8	9
14	Deposition or diagenesis? Probing the Ediacaran Shuram excursion in South China by SIMS. *Global and Planetary Change*, **2021**, 206, 103591	4.2	8
13	Southeastern Tanzania depositional environments, marine and terrestrial links, and exceptional microfossil preservation in the warm Turonian. *Bulletin of the Geological Society of America*, **2017**, 129, 515-533	3.9	7
12	Sulfur, oxygen, and hydrogen isotope compositions of precipitation in Seoul, South Korea. *Geochemical Journal*, **2012**, 46, 443-457	0.9	7
11	The Ediacaran-Cambrian Transition. *Geophysical Monograph Series*, **2018**, 115-142	1.1	6
10	Chemostratigraphy of Neoproterozoic-Cambrian Units, White-Inyo Region, Eastern California and Western Nevada: Implications for Global Correlation and Faunal Distribution. *Palaios*, **1996**, 11, 83	1.6	5
9	Coupled isotopic evidence for elevated pCO2 and nitrogen limitation across the Santonian-Campanian transition. *Chemical Geology*, **2019**, 504, 136-150	4.2	5
8	Dynamic interplay of biogeochemical C, S, and Ba cycles in response to Shuram oxygenation event. *Journal of the Geological Society*,jgs2021-081	2.7	4
7	PROBING AN ATYPICAL SHURAM EXCURSION BY SIMS **2019**,		3
6	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	1.6	2
5	Field workshop on the Ediacaran Nama Group of southern Namibia. *Episodes*, **2017**, 40, 259-261	1.6	2
4	Sizing up the sub-Tommotian unconformity in Siberia: Comment and Reply. *Geology*, **1996**, 24, 860	5	1
3	A transient peak in marine sulfate after the 635-Ma snowball Earth.. *Proceedings of the National Academy of Sciences of the United States of America*, **2022**, 119, e2117341119	11.5	1
2	An authigenic response to Ediacaran surface oxidation: Remarkable micron-scale isotopic heterogeneity revealed by SIMS. *Precambrian Research*, **2022**, 377, 106676	3.9	0

1 The sulfur isotopic consequence of seawater sulfate distillation preserved in the Neoproterozoic Sete Lagoas post-glacial carbonate, eastern Brazil. *Journal of the Geological Society*,jgs2021-091 2.7