

# Mark D Kurz

## List of Publications by Year in descending order

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109  
papers

9,437  
citations

27035

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42259

96  
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114  
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114  
docs citations

114  
times ranked

4799  
citing authors

#	ARTICLE	IF	CITATIONS
1	Mantle noble gas abundance ratios inferred from oceanic basalts and model estimates. <i>Physics of the Earth and Planetary Interiors</i> , 2022, 327, 106875.	0.7	2
2	Determining the noble gas cosmic ray exposure ages of 23 meteorites (8 chondrites and 15) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 707 T 1542-1569.	0.7	2
3	Primordial neon in high- $^3\text{He}/^4\text{He}$ Baffin Island olivines. <i>Earth and Planetary Science Letters</i> , 2021, 558, 116762.	1.8	5
4	Deep-mantle krypton reveals Earth's early accretion of carbonaceous matter. <i>Nature</i> , 2021, 600, 462-467.	13.7	19
5	Noble gas isotopic compositions of seamount lavas from the central Chile trench: Implications for petit-spot volcanism and the lithosphere asthenosphere boundary. <i>Earth and Planetary Science Letters</i> , 2020, 552, 116611.	1.8	6
6	Ancient helium and tungsten isotopic signatures preserved in mantle domains least modified by crustal recycling. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 30993-31001.	3.3	41
7	Hot and Heterogenous High- $^3\text{He}/^4\text{He}$ Components: New Constraints From Proto-Iceland Plume Lavas From Baffin Island. <i>Geochemistry, Geophysics, Geosystems</i> , 2019, 20, 5939-5967.	1.0	15
8	Noble gas systematics in new popping rocks from the Mid-Atlantic Ridge ( $14^\circ\text{N}$ ): Evidence for small-scale upper mantle heterogeneities. <i>Earth and Planetary Science Letters</i> , 2019, 519, 70-82.	1.8	13
9	Barium isotope evidence for pervasive sediment recycling in the upper mantle. <i>Science Advances</i> , 2018, 4, eaas8675.	4.7	55
10	Geodynamic implications for zonal and meridional isotopic patterns across the northern <sc>L</sc>au and <sc>N</sc>orth <sc>F</sc>iji <sc>B</sc>asins. <i>Geochemistry, Geophysics, Geosystems</i> , 2017, 18, 1013-1042.	1.0	14
11	Tungsten-182 heterogeneity in modern ocean island basalts. <i>Science</i> , 2017, 356, 66-69.	6.0	171
12	Neon isotopic composition of the mantle constrained by single vesicle analyses. <i>Earth and Planetary Science Letters</i> , 2016, 449, 145-154.	1.8	31
13	Geochemical evidence in the northeast Lau Basin for subduction of the Cook's Austral volcanic chain in the Tonga Trench. <i>Geochemistry, Geophysics, Geosystems</i> , 2016, 17, 1694-1724.	1.0	23
14	No evidence of extraterrestrial noble metal and helium anomalies at Marinoan glacial termination. <i>Earth and Planetary Science Letters</i> , 2016, 437, 76-88.	1.8	6
15	The CRONUS-Earth Project: A synthesis. <i>Quaternary Geochronology</i> , 2016, 31, 119-154.	0.6	138
16	A new Holocene eruptive history of Erebus volcano, Antarctica using cosmogenic $^3\text{He}$ and $^{36}\text{Cl}$ exposure ages. <i>Quaternary Geochronology</i> , 2015, 30, 114-131.	0.6	19
17	Effects of deglaciation on the petrology and eruptive history of the Western Volcanic Zone, Iceland. <i>Bulletin of Volcanology</i> , 2015, 77, 1.	1.1	24
18	Low- $^3\text{He}/^4\text{He}$ sublithospheric mantle source for the most magnesian magmas of the Karoo large igneous province. <i>Earth and Planetary Science Letters</i> , 2015, 426, 305-315.	1.8	14

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19	Helium and lead isotopes reveal the geochemical geometry of the Samoan plume. <i>Nature</i> , 2014, 514, 355-358.	13.7	90
20	Evidence for a broadly distributed Samoan-plume signature in the northern Lau and North Fiji Basins. <i>Geochemistry, Geophysics, Geosystems</i> , 2014, 15, 986-1008.	1.0	34
21	Reply to comment on "CO <sub>2</sub> variability in mid-ocean ridge basalts from syn-emplacement degassing: Constraints on eruption dynamics" by Soule et al. [ <i>Earth Planet. Sci. Lett.</i> (2012) 327-328, 39-49]. <i>Earth and Planetary Science Letters</i> , 2013, 374, 254-255.	1.8	3
22	Controls on interior West Antarctic Ice Sheet Elevations: inferences from geologic constraints and ice sheet modeling. <i>Quaternary Science Reviews</i> , 2013, 65, 26-38.	1.4	21
23	Age, geology, geophysics, and geochemistry of Mahukona Volcano, Hawai'i. <i>Bulletin of Volcanology</i> , 2012, 74, 1445-1463.	1.1	21
24	Evidence for the survival of the oldest terrestrial mantle reservoir. <i>Nature</i> , 2010, 466, 853-856.	13.7	151
25	Compositional Characteristics and Spatial Distribution of Enriched Icelandic Mantle Components. <i>Journal of Petrology</i> , 2010, 51, 1447-1475.	1.1	68
26	Diverse styles of submarine venting on the ultraslow spreading Mid-Cayman Rise. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 14020-14025.	3.3	140
27	Samoan hot spot track on a "hot spot highway": Implications for mantle plumes and a deep Samoan mantle source. <i>Geochemistry, Geophysics, Geosystems</i> , 2010, 11, .	1.0	77
28	Geochronology and paleoclimatic implications of the last deglaciation of the Mauna Kea Ice Cap, Hawaii. <i>Earth and Planetary Science Letters</i> , 2010, 297, 234-248.	1.8	16
29	A reevaluation of in situ cosmogenic <sup>3</sup> He production rates. <i>Quaternary Geochronology</i> , 2010, 5, 410-418.	0.6	105
30	Genesis of active sand-filled polygons in lower and central Beacon Valley, Antarctica. <i>Permafrost and Periglacial Processes</i> , 2009, 20, 295-308.	1.5	38
31	Primitive neon from the center of the Galápagos hotspot. <i>Earth and Planetary Science Letters</i> , 2009, 286, 23-34.	1.8	107
32	Flux and size fractionation of <sup>3</sup> He in interplanetary dust from Antarctic ice core samples. <i>Earth and Planetary Science Letters</i> , 2009, 286, 565-569.	1.8	19
33	The volatile contents of the Galapagos plume; evidence for H <sub>2</sub> O and F open system behavior in melt inclusions. <i>Earth and Planetary Science Letters</i> , 2009, 287, 442-452.	1.8	78
34	Helium and neon isotopes in phenocrysts from Samoan lavas: Evidence for heterogeneity in the terrestrial high <sup>3</sup> He/ <sup>4</sup> He mantle. <i>Earth and Planetary Science Letters</i> , 2009, 287, 519-528.	1.8	44
35	Mantle deformation and noble gases: Helium and neon in oceanic mylonites. <i>Chemical Geology</i> , 2009, 266, 10-18.	1.4	26
36	Construction of the Galápagos platform by large submarine volcanic terraces. <i>Geochemistry, Geophysics, Geosystems</i> , 2008, 9, .	1.0	37

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37	Globally elevated titanium, tantalum, and niobium (TITAN) in ocean island basalts with high $^3\text{He}/^4\text{He}$ . <i>Geochemistry, Geophysics, Geosystems</i> , 2008, 9, .	1.0	73
38	Scale length of mantle heterogeneities: Constraints from helium diffusion. <i>Earth and Planetary Science Letters</i> , 2008, 269, 508-517.	1.8	36
39	Patagonian Glacier Response During the Late Glacial–Holocene Transition. <i>Science</i> , 2008, 321, 392-395.	6.0	60
40	Glacial and volcanic history of Icelandic table mountains from cosmogenic $^3\text{He}$ exposure ages. <i>Quaternary Science Reviews</i> , 2007, 26, 1529-1546.	1.4	66
41	The role of lithospheric gabbros on the composition of Galapagos lavas. <i>Earth and Planetary Science Letters</i> , 2007, 257, 391-406.	1.8	76
42	New Samoan lavas from Ofu Island reveal a hemispherically heterogeneous high $^3\text{He}/^4\text{He}$ mantle. <i>Earth and Planetary Science Letters</i> , 2007, 264, 360-374.	1.8	116
43	The return of subducted continental crust in Samoan lavas. <i>Nature</i> , 2007, 448, 684-687.	13.7	280
44	Submarine Fernandina: Magmatism at the leading edge of the Galapagos hot spot. <i>Geochemistry, Geophysics, Geosystems</i> , 2006, 7, n/a-n/a.	1.0	66
45	Cosmogenic $^3\text{He}$ production rates from Holocene lava flows in Iceland. <i>Earth and Planetary Science Letters</i> , 2006, 246, 251-264.	1.8	56
46	Alfred Nier and the sector field mass spectrometer. <i>Journal of Mass Spectrometry</i> , 2006, 41, 847-854.	0.7	40
47	Helium solubility in olivine and implications for high $^3\text{He}/^4\text{He}$ in ocean island basalts. <i>Nature</i> , 2005, 437, 1140-1143.	13.7	125
48	1998 Eruption at Volc�n Cerro Azul, Galapagos Islands: I. Syn-Eruptive Petrogenesis. <i>Bulletin of Volcanology</i> , 2005, 67, 170-185.	1.1	20
49	Wolf Volcano, Galapagos Archipelago: Melting and Magmatic Evolution at the Margins of a Mantle Plume. <i>Journal of Petrology</i> , 2005, 46, 2197-2224.	1.1	55
50	Correlated helium, neon, and melt production on the super-fast spreading East Pacific Rise near 17�S. <i>Earth and Planetary Science Letters</i> , 2005, 232, 125-142.	1.8	59
51	Grand Comore Island: A well-constrained low $^3\text{He}/^4\text{He}$ mantle plume. <i>Earth and Planetary Science Letters</i> , 2005, 233, 391-409.	1.8	55
52	Rapid helium isotopic variability in Mauna Kea shield lavas from the Hawaiian Scientific Drilling Project. <i>Geochemistry, Geophysics, Geosystems</i> , 2004, 5, n/a-n/a.	1.0	96
53	Cosmogenic nuclide chronology of millennial-scale glacial advances during O-isotope stage 2 in Patagonia. <i>Bulletin of the Geological Society of America</i> , 2004, 116, 308.	1.6	142
54	Age and uplift rates of Sirius Group sediments in the Dominion Range, Antarctica, from surface exposure dating and geomorphology. <i>Global and Planetary Change</i> , 2004, 42, 207-225.	1.6	56

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55	Genovesa Submarine Ridge: A manifestation of plume-ridge interaction in the northern Galápagos Islands. <i>Geochemistry, Geophysics, Geosystems</i> , 2003, 4, n/a-n/a.	1.0	48
56	Pb-Sr-He isotope and trace element geochemistry of the Cape Verde Archipelago. <i>Geochimica Et Cosmochimica Acta</i> , 2003, 67, 3717-3733.	1.6	123
57	Low $^3\text{He}/^4\text{He}$ ratios in basalt glasses from the western Southwest Indian Ridge ( $10^\circ\text{--}24^\circ\text{E}$ ). <i>Earth and Planetary Science Letters</i> , 2003, 206, 509-528.	1.8	59
58	Long-term cosmogenic $^3\text{He}$ production rates from $^{40}\text{Ar}/^{39}\text{Ar}$ and $^{37}\text{Ar}$ dated Patagonian lava flows at $47^\circ\text{S}$ . <i>Earth and Planetary Science Letters</i> , 2003, 210, 119-136.	1.8	81
59	He and Ne isotopes in oceanic crust: implications for noble gas recycling in the mantle. <i>Earth and Planetary Science Letters</i> , 2003, 216, 635-643.	1.8	43
60	Volcanic evolution in the Galápagos: The dissected shield of Volcan Ecuador. <i>Geochemistry, Geophysics, Geosystems</i> , 2002, 3, 1 of 32-32 of 32.	1.0	34
61	Subducted oceanic lithosphere and the origin of the $^3\text{He}/^4\text{He}$ basalt helium isotopic signature. <i>Earth and Planetary Science Letters</i> , 2001, 189, 49-57.	1.8	69
62	Solar neon in the Icelandic mantle: new evidence for an undegassed lower mantle. <i>Earth and Planetary Science Letters</i> , 2001, 185, 15-23.	1.8	115
63	Cosmogenic $^3\text{He}$ and $^{10}\text{Be}$ chronologies of the late Pinedale northern Yellowstone ice cap, Montana, USA. <i>Geology</i> , 2001, 29, 1095.	2.0	81
64	Using submarine lava pillars to record mid-ocean ridge eruption dynamics. <i>Earth and Planetary Science Letters</i> , 2000, 178, 195-214.	1.8	28
65	Mapping out the conduit of the Iceland mantle plume with helium isotopes. <i>Earth and Planetary Science Letters</i> , 2000, 176, 45-55.	1.8	95
66	Accretion of interplanetary dust in polar ice. <i>Geophysical Research Letters</i> , 2000, 27, 3145-3148.	1.5	31
67	Measurements of Past Ice Sheet Elevations in Interior West Antarctica. <i>Science</i> , 1999, 286, 276-280.	6.0	101
68	Helium and lead isotope geochemistry of the Azores Archipelago. <i>Earth and Planetary Science Letters</i> , 1999, 169, 189-205.	1.8	127
69	Calibration of cosmogenic $^3\text{He}$ production rates from Holocene lava flows in Oregon, USA, and effects of the Earth's magnetic field. <i>Earth and Planetary Science Letters</i> , 1999, 172, 261-271.	1.8	102
70	Dynamics of the Galapagos hotspot from helium isotope geochemistry. <i>Geochimica Et Cosmochimica Acta</i> , 1999, 63, 4139-4156.	1.6	155
71	The emergence of a Galápagos shield volcano, Roca Redonda. <i>Contributions To Mineralogy and Petrology</i> , 1998, 133, 136-148.	1.2	22
72	Isotope Geochemistry of the Oceanic Mantle Near the Bouvet Triple Junction. <i>Geochimica Et Cosmochimica Acta</i> , 1998, 62, 841-852.	1.6	56

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73	Post-breakup basaltic magmatism along the East Greenland Tertiary rifted margin. <i>Earth and Planetary Science Letters</i> , 1998, 160, 845-862.	1.8	45
74	Melt migration and mantle chromatography, 2: a time-series Os isotope study of Mauna Loa volcano, Hawaii. <i>Earth and Planetary Science Letters</i> , 1997, 153, 21-36.	1.8	42
75	Chemical and isotopic variations in Mauna Loa tholeiites. <i>Earth and Planetary Science Letters</i> , 1996, 143, 111-124.	1.8	36
76	Helium isotopic evolution of Mauna Kea Volcano: First results from the 1-km drill core. <i>Journal of Geophysical Research</i> , 1996, 101, 11781-11791.	3.3	116
77	Constraints on age, erosion, and uplift of Neogene glacial deposits in the Transantarctic Mountains determined from in situ cosmogenic $^{10}\text{Be}$ and $^{26}\text{Al}$ . <i>Geology</i> , 1995, 23, 1063.	2.0	101
78	Isotopic evolution of Mauna Loa Volcano: A view from the submarine southwest rift zone. <i>Geophysical Monograph Series</i> , 1995, , 289-306.	0.1	54
79	Cosmogenic nuclide exposure ages and glacial history of late Quaternary Ross Sea drift in McMurdo Sound, Antarctica. <i>Earth and Planetary Science Letters</i> , 1995, 131, 41-56.	1.8	46
80	Physical volcanology and structural development of Sierra Negra volcano, Isabela Island, Galápagos archipelago. <i>Bulletin of the Geological Society of America</i> , 1995, 107, 1398-1410.	1.6	64
81	Isotope and trace element characteristics of a super-fast spreading ridge: East Pacific rise, $13^{\circ}$ - $23^{\circ}\text{S}$ . <i>Earth and Planetary Science Letters</i> , 1994, 121, 173-193.	1.8	213
82	Surface-Exposure Chronology Using in Situ Cosmogenic $^3\text{He}$ in Antarctic Quartz Sandstone Boulders. <i>Quaternary Research</i> , 1993, 39, 1-10.	1.0	53
83	Chronology of Taylor Glacier Advances in Arena Valley, Antarctica, Using in Situ Cosmogenic $^3\text{He}$ and $^{10}\text{Be}$ . <i>Quaternary Research</i> , 1993, 39, 11-23.	1.0	126
84	Experimental measurements of $^3\text{He}$ and $^4\text{He}$ mobility in olivine and clinopyroxene at magmatic temperatures. <i>Geochimica Et Cosmochimica Acta</i> , 1993, 57, 1313-1324.	1.6	179
85	Effective attenuation lengths of cosmic rays producing $^{10}\text{Be}$ AND $^{26}\text{Al}$ in quartz: Implications for exposure age dating. <i>Geophysical Research Letters</i> , 1992, 19, 369-372.	1.5	125
86	Helium isotope geochemistry of some volcanic rocks from Saint Helena. <i>Earth and Planetary Science Letters</i> , 1992, 110, 121-131.	1.8	136
87	Helium isotope geochemistry of mid-ocean ridge basalts from the South Atlantic. <i>Earth and Planetary Science Letters</i> , 1992, 110, 133-147.	1.8	101
88	Diffusion of cosmogenic $^3\text{He}$ in olivine and quartz: implications for surface exposure dating. <i>Earth and Planetary Science Letters</i> , 1991, 103, 241-256.	1.8	135
89	Isotopic evolution of Mauna Loa volcano. <i>Earth and Planetary Science Letters</i> , 1991, 103, 257-269.	1.8	93
90	Examination of surface exposure ages of Antarctic moraines using in situ produced $^{10}\text{Be}$ and $^{26}\text{Al}$ . <i>Geochimica Et Cosmochimica Acta</i> , 1991, 55, 2269-2283.	1.6	295

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91	Comment and Reply on "Mahukona: The missing Hawaiian volcano". <i>Geology</i> , 1991, 19, 1049.	2.0	4
92	Mahukona: The missing Hawaiian volcano. <i>Geology</i> , 1990, 18, 1111.	2.0	22
93	Measurements of Helium in Electrolyzed Palladium. <i>Fusion Science and Technology</i> , 1990, 18, 659-668.	0.6	22
94	He and Sr isotopic constraints on subduction contributions to Woodlark Basin volcanism, Solomon Islands. <i>Geochimica Et Cosmochimica Acta</i> , 1990, 54, 441-453.	1.6	31
95	Cosmic ray exposure dating with in situ produced cosmogenic $^3\text{He}$ : Results from young Hawaiian lava flows. <i>Earth and Planetary Science Letters</i> , 1990, 97, 177-189.	1.8	148
96	He, Pb, Sr and Nd isotope constraints on magma genesis and mantle heterogeneity beneath young Pacific seamounts. <i>Contributions To Mineralogy and Petrology</i> , 1988, 99, 446-463.	1.2	134
97	Temporal helium isotopic variations within Hawaiian volcanoes: Basalts from Mauna Loa and Haleakala. <i>Geochimica Et Cosmochimica Acta</i> , 1987, 51, 2905-2914.	1.6	90
98	Helium isotopic variability within single diamonds from the Orapa kimberlite pipe. <i>Earth and Planetary Science Letters</i> , 1987, 86, 57-68.	1.8	60
99	Helium isotope disequilibrium and geochronology of glassy submarine basalts. <i>Nature</i> , 1987, 326, 384-386.	13.7	62
100	New noble-gas data on glass samples from Loihi Seamount and Hualalai and on dunite samples from Loihi and R�union Island. <i>Chemical Geology</i> , 1986, 56, 193-205.	1.4	103
101	In situ production of terrestrial cosmogenic helium and some applications to geochronology. <i>Geochimica Et Cosmochimica Acta</i> , 1986, 50, 2855-2862.	1.6	214
102	Cosmogenic helium in a terrestrial igneous rock. <i>Nature</i> , 1986, 320, 435-439.	13.7	240
103	Helium isotopic systematics within the neovolcanic zones of Iceland. <i>Earth and Planetary Science Letters</i> , 1985, 74, 291-305.	1.8	101
104	Constraints on evolution of Earth's mantle from rare gas systematics. <i>Nature</i> , 1983, 303, 762-766.	13.7	420
105	Helium isotopic variations in volcanic rocks from Loihi Seamount and the Island of Hawaii. <i>Earth and Planetary Science Letters</i> , 1983, 66, 388-406.	1.8	303
106	Helium isotopic variations in the mantle beneath the central North Atlantic Ocean. <i>Earth and Planetary Science Letters</i> , 1982, 58, 1-14.	1.8	208
107	Helium partitioning in basaltic glass: Reply to comment by R. Poreda. <i>Earth and Planetary Science Letters</i> , 1982, 59, 439-440.	1.8	3
108	Helium isotopic systematics of oceanic islands and mantle heterogeneity. <i>Nature</i> , 1982, 297, 43-47.	13.7	479

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109	The distribution of helium in oceanic basalt glasses. Earth and Planetary Science Letters, 1981, 53, 41-54.	1.8	204