

# Frederick A Frey

## List of Publications by Year in descending order

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60  
papers

8,599  
citations

61857

43  
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128067

60  
g-index

61  
all docs

61  
docs citations

61  
times ranked

3665  
citing authors

#	ARTICLE	IF	CITATIONS
1	Ultramafic inclusions from San Carlos, Arizona: Petrologic and geochemical data bearing on their petrogenesis. <i>Earth and Planetary Science Letters</i> , 1978, 38, 129-176.	1.8	852
2	The amount of recycled crust in sources of mantle-derived melts. <i>Science</i> , 2007, 316, 412-7.	6.0	822
3	The mineralogy, geochemistry and origin of lherzolite inclusions in Victorian basanites. <i>Geochimica Et Cosmochimica Acta</i> , 1974, 38, 1023-1059.	1.6	655
4	Geochemical characteristics of boninite series volcanics: implications for their source. <i>Geochimica Et Cosmochimica Acta</i> , 1982, 46, 2099-2115.	1.6	481
5	Petrology and Trace Element Geochemistry of the Honolulu Volcanics, Oahu: Implications for the Oceanic Mantle below Hawaii. <i>Journal of Petrology</i> , 1982, 23, 447-504.	1.1	472
6	Geologic, geochemical, and geophysical consequences of plume involvement in the Emeishan flood-basalt province. <i>Geology</i> , 2004, 32, 917.	2.0	405
7	Multiple sources for basaltic arc rocks from the southern volcanic zone of the Andes (34°–41°S): Trace element and isotopic evidence for contributions from subducted oceanic crust, mantle, and continental crust. <i>Journal of Geophysical Research</i> , 1986, 91, 5963-5983.	3.3	334
8	Distribution of trace elements between garnet megacrysts and host volcanic liquids of kimberlitic to rhyolitic composition. <i>Geochimica Et Cosmochimica Acta</i> , 1978, 42, 771-787.	1.6	330
9	The Ronda high temperature peridotite: Geochemistry and petrogenesis. <i>Geochimica Et Cosmochimica Acta</i> , 1985, 49, 2469-2491.	1.6	306
10	Trace element and isotopic geochemistry of lavas from Haleakala Volcano, east Maui, Hawaii: Implications for the origin of Hawaiian basalts. <i>Journal of Geophysical Research</i> , 1985, 90, 8743-8768.	3.3	292
11	Role of lithosphere–asthenosphere interaction in the genesis of Quaternary alkali and tholeiitic basalts from Datong, western North China Craton. <i>Chemical Geology</i> , 2005, 224, 247-271.	1.4	266
12	Geochemistry of peridotite xenoliths in basalt from Hannuoba, Eastern China: Implications for subcontinental mantle heterogeneity. <i>Geochimica Et Cosmochimica Acta</i> , 1989, 53, 97-113.	1.6	231
13	Origin of Hawaiian tholeiite and alkalic basalt. <i>Nature</i> , 1983, 302, 785-789.	13.7	220
14	Geochemistry of Hannuoba basalts, eastern China: Constraints on the origin of continental alkalic and tholeiitic basalt. <i>Chemical Geology</i> , 1990, 88, 1-33.	1.4	188
15	Isotopic characteristics of Hannuoba basalts, eastern China: Implications for their petrogenesis and the composition of subcontinental mantle. <i>Chemical Geology</i> , 1990, 88, 35-52.	1.4	179
16	Geochemistry of diverse basalt types from Loihi Seamount, Hawaii: petrogenetic implications. <i>Earth and Planetary Science Letters</i> , 1983, 66, 337-355.	1.8	169
17	Geochemical variations in Andean basaltic and silicic lavas from the Villarrica-Lanin volcanic chain (39.5°; 1/2 S): an evaluation of source heterogeneity, fractional crystallization and crustal assimilation. <i>Contributions To Mineralogy and Petrology</i> , 1989, 103, 361-386.	1.2	161
18	Geochemistry of tholeiitic and alkalic lavas from the Koolau Range, Oahu, Hawaii: Implications for Hawaiian volcanism. <i>Earth and Planetary Science Letters</i> , 1984, 69, 141-158.	1.8	146

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19	Petrogenesis of the Bunbury Basalt, Western Australia: interaction between the Kerguelen plume and Gondwana lithosphere?. Earth and Planetary Science Letters, 1996, 144, 163-183.	1.8	113
20	Relationship between the early Kerguelen plume and continental flood basalts of the paleo-Eastern Gondwanan margins. Earth and Planetary Science Letters, 2002, 197, 35-50.	1.8	99
21	Lithium isotope geochemistry of the Hawaiian plume: Results from the Hawaii Scientific Drilling Project and Koolau Volcano. Geochemistry, Geophysics, Geosystems, 2003, 4, .	1.0	99
22	Recycled oceanic crust in the Hawaiian Plume: evidence from temporal geochemical variations within the Koolau Shield. Contributions To Mineralogy and Petrology, 2005, 149, 556-575.	1.2	89
23	Petrogenesis of the Laguna del Maule volcanic complex, Chile (36°1/2 S). Contributions To Mineralogy and Petrology, 1984, 88, 133-149.	1.2	86
24	Tholeiitic and alkali basalts from the Mid-Atlantic Ridge at 43 Å° N. Contributions To Mineralogy and Petrology, 1979, 70, 127-141.	1.2	85
25	Rare Earth Element Abundances in Upper Mantle Rocks. Developments in Geochemistry, 1984, 2, 153-203.	0.1	83
26	Tectonics of the Ninetyeast Ridge derived from spreading records in adjacent oceanic basins and age constraints of the ridge. Journal of Geophysical Research, 2012, 117, .	3.3	69
27	Rare-Earth abundances in some ultramafic rocks. Journal of Geophysical Research, 1971, 76, 2057-2070.	3.3	68
28	Evolution of the lithosphere beneath Oahu, Hawaii: rare earth element abundances in mantle xenoliths. Earth and Planetary Science Letters, 1993, 119, 53-69.	1.8	68
29	Role of the Kerguelen Plume in generating the eastern Indian Ocean seafloor. Journal of Geophysical Research, 1996, 101, 13831-13849.	3.3	67
30	Geochemistry and petrology of dredged basalts from the Bouvet triple junction, South Atlantic. Geochimica Et Cosmochimica Acta, 1977, 41, 1105-1118.	1.6	66
31	Temporal evolution of the kerguelen plume: Geochemical evidence from 38 to 82 ma lavas forming the Ninetyeast ridge. Contributions To Mineralogy and Petrology, 1995, 121, 12-28.	1.2	63
32	Geochemical evolution of Kohala Volcano, Hawaii. Contributions To Mineralogy and Petrology, 1987, 95, 100-113.	1.2	62
33	Origin of continental components in Indian Ocean basalts: Evidence from Elan Bank (Kerguelen) Tj ETQq1 1 0.784314 rgBT /Overlock 100	2.0	59
34	Trace of the Kerguelen mantle plume: Evidence from seamounts between the Kerguelen Archipelago and Heard Island, Indian Ocean. Geochemistry, Geophysics, Geosystems, 2002, 3, 1-27.	1.0	56
35	Basaltic rocks from the Andean Southern Volcanic Zone: Insights from the comparison of along-strike and small-scale geochemical variations and their sources. Lithos, 2016, 258-259, 115-132.	0.6	56
36	An experimental study of the partitioning of a rare earth element (Gd) in the system diopsideâ€”aqueous vapour. Geochimica Et Cosmochimica Acta, 1974, 38, 545-565.	1.6	55

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37	Geochemical characteristics of the south Tuscany (Italy) volcanic province: Constraints on lava petrogenesis. <i>Chemical Geology</i> , 1984, 43, 203-221.	1.4	52
38	Recent lavas from the Andean volcanic front (33 to 42°S); Interpretations of along-arc compositional variations. <i>Special Paper of the Geological Society of America</i> , 1991, , 57-78.	0.5	52
39	Submarine lavas from Mauna Kea Volcano, Hawaii: Implications for Hawaiian shield stage processes. <i>Journal of Geophysical Research</i> , 1994, 99, 15577.	3.3	52
40	Geochemical characteristics of West Molokai shield and postshield stage lavas: Constraints on Hawaiian plume models. <i>Geochemistry, Geophysics, Geosystems</i> , 2007, 8, .	1.0	48
41	Petrology of volcanic rocks from Kaula Island, Hawaii. <i>Contributions To Mineralogy and Petrology</i> , 1986, 94, 461-471.	1.2	47
42	Enriched components in the Hawaiian plume: Evidence from Kahoolawe Volcano, Hawaii. <i>Geochemistry, Geophysics, Geosystems</i> , 2005, 6, n/a-n/a.	1.0	47
43	Geochemical characteristics of central Chile (33 ½-34 ½S) granitoids. <i>Contributions To Mineralogy and Petrology</i> , 1979, 70, 439-450.	1.2	46
44	Mineral chemistry of submarine lavas from Hilo Ridge, Hawaii: implications for magmatic processes within Hawaiian rift zones. <i>Contributions To Mineralogy and Petrology</i> , 1999, 135, 355-372.	1.2	39
45	East Molokai and other Kea-trend volcanoes: Magmatic processes and sources as they migrate away from the Hawaiian hot spot. <i>Geochemistry, Geophysics, Geosystems</i> , 2005, 6, n/a-n/a.	1.0	37
46	Compositional diversity of Mauna Kea shield lavas recovered by the Hawaii Scientific Drilling Project: Inferences on source lithology, magma supply, and the role of multiple volcanoes. <i>Geochemistry, Geophysics, Geosystems</i> , 2012, 13, .	1.0	36
47	Evolution of the upper mantle beneath southeast Australia: geochemical evidence from peridotite xenoliths in Mount Leura basanite. <i>Earth and Planetary Science Letters</i> , 1989, 93, 195-209.	1.8	32
48	Ancient carbonate sedimentary signature in the Hawaiian plume: Evidence from Mahukona volcano, Hawaii. <i>Geochemistry, Geophysics, Geosystems</i> , 2009, 10, .	1.0	29
49	Iron/manganese ratio and manganese content in shield lavas from Koâ€™olau Volcano, Hawaiiâ€™. <i>Geochimica Et Cosmochimica Acta</i> , 2007, 71, 4557-4569.	1.6	27
50	Depleted components in the source of hotspot magmas: Evidence from the Ninetyeast Ridge (Kerguelen). <i>Earth and Planetary Science Letters</i> , 2015, 426, 293-304.	1.8	24
51	The origin of lavas from the Ninetyeast Ridge, eastern Indian Ocean: An evaluation of fractional crystallization models. <i>Journal of Geophysical Research</i> , 1980, 85, 4405-4420.	3.3	23
52	The geochemical components that distinguish Loa- and Kea-trend Hawaiian shield lavas. <i>Geochimica Et Cosmochimica Acta</i> , 2016, 185, 160-181.	1.6	21
53	Petrology, geochemistry and original tectonic setting of basalts from the Mozambique Basin and Ridge (DSDP Sites 248, 249 and 250), and from the Southwest Indian Ridge (DSDP Site 251). <i>Marine Geology</i> , 1982, 48, 175-195.	0.9	19
54	The Val Gabbro Plutonic Suite: A Sub-volcanic Intrusion Emplaced at the End of Flood Basalt Volcanism on the Kerguelen Archipelago. <i>Journal of Petrology</i> , 2008, 49, 79-105.	1.1	19

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55	Compositional heterogeneity of the Sugarloaf melilite nephelinite flow, Honolulu Volcanics, Hawaii. <i>Geochimica Et Cosmochimica Acta</i> , 2016, 185, 251-277.	1.6	18
56	Flood basalts from Mt. Capitole in the central Kerguelen Archipelago: Insights into the growth of the archipelago and source components contributing to plume-related volcanism. <i>Geochemistry, Geophysics, Geosystems</i> , 2007, 8, n/a-n/a.	1.0	17
57	The Influence of Mantle Plumes in Generation of Indian Oceanic Crust. <i>Geophysical Monograph Series</i> , 2013, , 57-89.	0.1	17
58	The distribution of geochemical heterogeneities in the source of Hawaiian shield lavas as revealed by a transect across the strike of the Loa and Kea spatial trends: East Molokai to West Molokai to Penguin Bank. <i>Geochimica Et Cosmochimica Acta</i> , 2014, 132, 214-237.	1.6	17
59	Compositional variation within thick (>10 m) flow units of Mauna Kea Volcano cored by the Hawaii Scientific Drilling Project. <i>Geochimica Et Cosmochimica Acta</i> , 2016, 185, 182-197.	1.6	6
60	Multistage mantle processes. <i>Geology</i> , 1985, 13, 742.	2.0	1