

# Shichun Huang

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

67

papers

2,429

citations

28

h-index

48

g-index

69

ext. papers

2,867

ext. citations

7.2

avg. IF

5.26

L-index

#	Paper	IF	Citations
67	Pressure and concentration effects on intermineral calcium isotope fractionation involving garnet. <i>Chemical Geology</i> , <b>2022</b> , 591, 120722	4.2	0
66	Response to Comment on "Discovery of davemaoite, CaSiO-perovskite, as a mineral from the lower mantle".. <i>Science</i> , <b>2022</b> , 376, eabo2029	33.3	2
65	Discovery of davemaoite, CaSiO-perovskite, as a mineral from the lower mantle. <i>Science</i> , <b>2021</b> , 374, 891-894	39.4	14
64	High-temperature inter-mineral potassium isotope fractionation: implications for K-Ca-Ar chronology.. <i>ACS Earth and Space Chemistry</i> , <b>2021</b> , 5, 2740-2754	3.2	1
63	Maximum temperatures in evolving protoplanetary discs and composition of planetary building blocks. <i>Monthly Notices of the Royal Astronomical Society</i> , <b>2021</b> , 503, 5254-5262	4.3	0
62	Coupled deep-mantle carbon-water cycle: Evidence from lower-mantle diamonds. <i>Innovation(China)</i> , <b>2021</b> , 2, 100117	17.8	3
61	Nickel isotopic evidence for late-stage accretion of Mercury-like differentiated planetary embryos. <i>Nature Communications</i> , <b>2021</b> , 12, 294	17.4	4
60	Calcium isotope cosmochemistry. <i>Chemical Geology</i> , <b>2021</b> , 581, 120396	4.2	2
59	Dust condensation in evolving discs and the composition of planetary building blocks. <i>Monthly Notices of the Royal Astronomical Society</i> , <b>2020</b> , 495, 2543-2553	4.3	6
58	HIMU geochemical signature originating from the transition zone. <i>Earth and Planetary Science Letters</i> , <b>2020</b> , 542, 116323	5.3	11
57	Snow Algae Preferentially Grow on Fe-containing Minerals and Contribute to the Formation of Fe Phases. <i>Geomicrobiology Journal</i> , <b>2020</b> , 37, 572-581	2.5	4
56	Formation of lunar highlands anorthosites. <i>Earth and Planetary Science Letters</i> , <b>2020</b> , 536, 116138	5.3	11
55	Equilibrium inter-mineral titanium isotope fractionation: Implication for high-temperature titanium isotope geochemistry. <i>Geochimica Et Cosmochimica Acta</i> , <b>2020</b> , 269, 540-553	5.5	18
54	Stable chromium isotope fractionation during magmatic differentiation: Insights from Hawaiian basalts and implications for planetary redox conditions. <i>Geochimica Et Cosmochimica Acta</i> , <b>2020</b> , 278, 289-304	5.5	16
53	Calcium isotope fractionation during crustal melting and magma differentiation: Granitoid and mineral-pair perspectives. <i>Geochimica Et Cosmochimica Acta</i> , <b>2019</b> , 259, 37-52	5.5	23
52	An isotopically depleted lower mantle component is intrinsic to the Hawaiian mantle plume. <i>Nature Geoscience</i> , <b>2019</b> , 12, 487-492	18.3	9
51	First-principles investigation of equilibrium K isotope fractionation among K-bearing minerals. <i>Geochimica Et Cosmochimica Acta</i> , <b>2019</b> , 264, 30-42	5.5	22

50	First-principles investigation of the concentration effect on equilibrium fractionation of K isotopes in feldspars. <i>Geochimica Et Cosmochimica Acta</i> , <b>2019</b> , 245, 374-384	5.5	25
49	Ice-VII inclusions in diamonds: Evidence for aqueous fluid in Earth's deep mantle. <i>Science</i> , <b>2018</b> , 359, 1136-1139	5.5	108
48	Bioavailability of Mineral-Bound Iron to a Snow Algal-Bacterial Coculture and Implications for Albedo-Altering Snow Algal Blooms. <i>Applied and Environmental Microbiology</i> , <b>2018</b> , 84,	4.8	10
47	No Measurable Calcium Isotopic Fractionation During Crystallization of Kilauea Iki Lava Lake. <i>Geochemistry, Geophysics, Geosystems</i> , <b>2018</b> , 19, 3128-3139	3.6	32
46	Effects of Organic Compounds on Dissolution of the Phosphate Minerals Chlorapatite, Whitlockite, Merrillite, and Fluorapatite: Implications for Interpreting Past Signatures of Organic Compounds in Rocks, Soils and Sediments. <i>Astrobiology</i> , <b>2018</b> , 18, 1543-1558	3.7	1
45	Concentration effect on equilibrium fractionation of Mg-Ca isotopes in carbonate minerals: Insights from first-principles calculations. <i>Geochimica Et Cosmochimica Acta</i> , <b>2017</b> , 208, 185-197	5.5	48
44	Coupled extremely light Ca and Fe isotopes in peridotites. <i>Geochimica Et Cosmochimica Acta</i> , <b>2017</b> , 208, 368-380	5.5	59
43	Mass-Independent and Mass-Dependent Ca Isotopic Compositions of Thirteen Geological Reference Materials Measured by Thermal Ionisation Mass Spectrometry. <i>Geostandards and Geoanalytical Research</i> , <b>2017</b> , 41, 283-302	3.6	51
42	Mantle geochemistry: Insights from ocean island basalts. <i>Science China Earth Sciences</i> , <b>2017</b> , 60, 1976-2006	4.6	8
41	Effect of Ca content on equilibrium Ca isotope fractionation between orthopyroxene and clinopyroxene. <i>Geochimica Et Cosmochimica Acta</i> , <b>2017</b> , 219, 44-56	5.5	41
40	Calcium isotopic compositions of chondrites. <i>Geochimica Et Cosmochimica Acta</i> , <b>2017</b> , 201, 364-376	5.5	37
39	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> , <b>2016</b> , 185, 182-197	5.5	4
38	The geochemical components that distinguish Loa- and Kea-trend Hawaiian shield lavas. <i>Geochimica Et Cosmochimica Acta</i> , <b>2016</b> , 185, 160-181	5.5	17
37	Compositional heterogeneity of the Sugarloaf melilite nephelinite flow, Honolulu Volcanics, Hawaii. <i>Geochimica Et Cosmochimica Acta</i> , <b>2016</b> , 185, 251-277	5.5	14
36	Magmas and their sources: A special issue honoring Frederick A. Frey. <i>Geochimica Et Cosmochimica Acta</i> , <b>2016</b> , 185, 1-8	5.5	
35	Petrogenesis of high-CaO lavas from Mauna Kea, Hawaii: Constraints from trace element abundances. <i>Geochimica Et Cosmochimica Acta</i> , <b>2016</b> , 185, 198-215	5.5	11
34	Is the mantle chemically stratified? Insights from sound velocity modeling and isotope evolution of an early magma ocean. <i>Earth and Planetary Science Letters</i> , <b>2016</b> , 440, 158-168	5.3	9
33	Depleted components in the source of hotspot magmas: Evidence from the Ninetyeast Ridge (Kerguelen). <i>Earth and Planetary Science Letters</i> , <b>2015</b> , 426, 293-304	5.3	18

32	Isotope fractionation induced by phase transformation: First-principles investigation for Mg <sub>2</sub> SiO <sub>4</sub> . <i>Earth and Planetary Science Letters</i> , <b>2015</b> , 409, 339-347	5.3	32
31	Missing lead and high $\delta^{206}\text{Pb}/^{204}\text{Pb}$ in ancient sulfides associated with continental crust formation. <i>Scientific Reports</i> , <b>2014</b> , 4, 5314	4.9	12
30	First-principles investigations of equilibrium calcium isotope fractionation between clinopyroxene and Ca-doped orthopyroxene. <i>Geochimica Et Cosmochimica Acta</i> , <b>2014</b> , 143, 132-142	5.5	59
29	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> , <b>2014</b> , 132, 214-237	5.5	14
28	Calcium and titanium isotopic fractionations during evaporation. <i>Geochimica Et Cosmochimica Acta</i> , <b>2014</b> , 140, 365-380	5.5	35
27	First-principles calculations of equilibrium silicon isotope fractionation among mantle minerals. <i>Geochimica Et Cosmochimica Acta</i> , <b>2014</b> , 140, 509-520	5.5	58
26	Iron isotopic systematics of oceanic basalts. <i>Geochimica Et Cosmochimica Acta</i> , <b>2013</b> , 107, 12-26	5.5	143
25	Coupled W <sup>52</sup> Os/Bt isotope systematics in IVB iron meteorites: In situ neutron dosimetry for W isotope chronology. <i>Earth and Planetary Science Letters</i> , <b>2013</b> , 361, 152-161	5.3	54
24	Sr, Nd, Hf and Pb isotope systematics of postshield-stage lavas at Kahoolawe, Hawaii. <i>Chemical Geology</i> , <b>2013</b> , 360-361, 159-172	4.2	6
23	Large Pt anomaly in the Greenland ice core points to a cataclysm at the onset of Younger Dryas. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2013</b> , 110, 12917-20	11.5	47
22	Reply to Boslough: Is Greenland Pt anomaly global or local?. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2013</b> , 110, E5036	11.5	4
21	<sup>147</sup> Sm- <sup>143</sup> Nd systematics of Earth are inconsistent with a superchondritic Sm/Nd ratio. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2013</b> , 110, 4929-34	11.5	27
20	Calcium isotopic ratios and rare earth element abundances in refractory inclusions from the Allende CV3 chondrite. <i>Geochimica Et Cosmochimica Acta</i> , <b>2012</b> , 77, 252-265	5.5	65
19	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> , <b>2012</b> , 13, n/a-n/a	3.6	31
18	Major element variations in Hawaiian shield lavas: Source features and perspectives from global ocean island basalt (OIB) systematics. <i>Geochemistry, Geophysics, Geosystems</i> , <b>2012</b> , 13,	3.6	52
17	Geochemical zoning of volcanic chains associated with Pacific hotspots. <i>Nature Geoscience</i> , <b>2011</b> , 4, 874-888	5.5	75
16	A radiogenic Os component in the oceanic lithosphere? Constraints from Hawaiian pyroxenite xenoliths. <i>Geochimica Et Cosmochimica Acta</i> , <b>2011</b> , 75, 4899-4916	5.5	36
15	Stable calcium isotopic compositions of Hawaiian shield lavas: Evidence for recycling of ancient marine carbonates into the mantle. <i>Geochimica Et Cosmochimica Acta</i> , <b>2011</b> , 75, 4987-4997	5.5	115

14	Diverse mantle sources for Ninetyeast Ridge magmatism: Geochemical constraints from basaltic glasses. <i>Earth and Planetary Science Letters</i> , <b>2011</b> , 303, 215-224	5.3	22
13	Diffusion-driven magnesium and iron isotope fractionation in Hawaiian olivine. <i>Earth and Planetary Science Letters</i> , <b>2011</b> , 308, 317-324	5.3	129
12	Solar composition from the Genesis Discovery Mission. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2011</b> , 108, 19147-51	11.5	25
11	Magnesium isotopic composition of the Earth and chondrites. <i>Geochimica Et Cosmochimica Acta</i> , <b>2010</b> , 74, 4150-4166	5.5	299
10	Calcium isotopic fractionation between clinopyroxene and orthopyroxene from mantle peridotites. <i>Earth and Planetary Science Letters</i> , <b>2010</b> , 292, 337-344	5.3	109
9	New geological-geophysical data on the structure of the Ninetyeast ridge. <i>Doklady Earth Sciences</i> , <b>2010</b> , 434, 1208-1213	0.6	5
8	Ancient carbonate sedimentary signature in the Hawaiian plume: Evidence from Mahukona volcano, Hawaii. <i>Geochemistry, Geophysics, Geosystems</i> , <b>2009</b> , 10, n/a-n/a	3.6	25
7	Iron/manganese ratio and manganese content in shield lavas from Kōlāu Volcano, Hawaiʻi. <i>Geochimica Et Cosmochimica Acta</i> , <b>2007</b> , 71, 4557-4569	5.5	21
6	Petrogenesis of lavas from Detroit Seamount: Geochemical differences between Emperor Chain and Hawaiian volcanoes. <i>Geochemistry, Geophysics, Geosystems</i> , <b>2005</b> , 6, n/a-n/a	3.6	33
5	Origin of depleted components in basalt related to the Hawaiian hot spot: Evidence from isotopic and incompatible element ratios. <i>Geochemistry, Geophysics, Geosystems</i> , <b>2005</b> , 6,	3.6	60
4	Enriched components in the Hawaiian plume: Evidence from Kahoolawe Volcano, Hawaii. <i>Geochemistry, Geophysics, Geosystems</i> , <b>2005</b> , 6, n/a-n/a	3.6	45
3	Recycled oceanic crust in the Hawaiian Plume: evidence from temporal geochemical variations within the Koolau Shield. <i>Contributions To Mineralogy and Petrology</i> , <b>2005</b> , 149, 556-575	3.5	85
2	Trace element abundances of Mauna Kea basalt from phase 2 of the Hawaii Scientific Drilling Project: Petrogenetic implications of correlations with major element content and isotopic ratios. <i>Geochemistry, Geophysics, Geosystems</i> , <b>2003</b> , 4, n/a-n/a	3.6	64
1	Sulfur isotopic signature of Earth established by planetesimal volatile evaporation. <i>Nature Geoscience</i> ,	18.3	3