

Hirochika Sumino

List of Publications by Year in descending order

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109
papers

2,540
citations

236925

25
h-index

223800

46
g-index

113
all docs

113
docs citations

113
times ranked

2558
citing authors

#	ARTICLE	IF	CITATIONS
1	Widespread distribution of ascending fluids transporting mantle helium in the fore-arc region and their upwelling processes: Noble gas and major element composition of deep groundwater in the Kii Peninsula, southwest Japan. <i>Geochimica Et Cosmochimica Acta</i> , 2016, 182, 173-196.	3.9	274
2	The $^3\text{He}/^4\text{He}$ ratio of the new internal He Standard of Japan (HESJ).. <i>Geochemical Journal</i> , 2002, 36, 191-195.	1.0	182
3	Lithium isotopic systematics of the mantle-derived ultramafic xenoliths: implications for EM1 origin. <i>Earth and Planetary Science Letters</i> , 2004, 217, 245-261.	4.4	119
4	Seawater-derived noble gases and halogens preserved in exhumed mantle wedge peridotite. <i>Earth and Planetary Science Letters</i> , 2010, 294, 163-172.	4.4	113
5	Retroarc volcanism in the northern San Rafael Block (34°S – 35°S), southern Central Andes: Occurrence, age, and tectonic setting. <i>Journal of Volcanology and Geothermal Research</i> , 2009, 186, 169-185.	2.1	78
6	Diffusive helium emissions as a precursory sign of volcanic unrest. <i>Geology</i> , 2013, 41, 539-542.	4.4	72
7	Highly Sensitive and Precise Measurement of Helium Isotopes Using a Mass Spectrometer with Double Collector System.. <i>Journal of the Mass Spectrometry Society of Japan</i> , 2001, 49, 61-68.	0.1	70
8	Symmetrical Helium isotope distribution on the Cameroon Volcanic Line, West Africa. <i>Chemical Geology</i> , 2004, 203, 205-223.	3.3	65
9	Variation in noble gas isotopic composition of gas samples from the Aegean arc, Greece. <i>Journal of Volcanology and Geothermal Research</i> , 2005, 140, 321-339.	2.1	64
10	The contribution of hydrothermally altered ocean crust to the mantle halogen and noble gas cycles. <i>Geochimica Et Cosmochimica Acta</i> , 2016, 183, 106-124.	3.9	64
11	Precursory diffuse carbon dioxide degassing signature related to a 5.1 magnitude earthquake in El Salvador, Central America. <i>Earth and Planetary Science Letters</i> , 2002, 205, 81-89.	4.4	50
12	Diffuse CO_2 efflux from Iwojima volcano, Izu-Ogasawara arc, Japan. <i>Journal of Volcanology and Geothermal Research</i> , 2005, 139, 147-161.	2.1	50
13	Nitrogen isotopes of the mantle: Insights from mineral separates. <i>Geophysical Research Letters</i> , 2005, 32, .	4.0	46
14	He-Ar and Nd-Sr isotopic compositions of ultramafic xenoliths and host alkali basalts from the Korean peninsula. <i>Geochemical Journal</i> , 2005, 39, 341-356.	1.0	44
15	Release of mantle helium from forearc region of the Southwest Japan arc. <i>Chemical Geology</i> , 2006, 233, 235-248.	3.3	40
16	A magmatic source for fumaroles and diffuse degassing from the summit crater of Teide Volcano (Tenerife, Canary Islands): a geochemical evidence for the 2004–2005 seismic–volcanic crisis. <i>Bulletin of Volcanology</i> , 2012, 74, 1465-1483.	3.0	37
17	Quaternary volcanic activity of Hudson and Lautaro volcanoes, Chilean Patagonia: New constraints from K-Ar ages. <i>Andean Geology</i> , 2004, 31, .	0.5	37
18	Adjacent releases of mantle helium and soil CO_2 from active faults: Observations from the Marmara region of the North Anatolian Fault zone, Turkey. <i>Geochemistry, Geophysics, Geosystems</i> , 2009, 10, .	2.5	35

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19	Petit-spot geology reveals melts in upper-most asthenosphere dragged by lithosphere. <i>Earth and Planetary Science Letters</i> , 2015, 426, 267-279.	4.4	35
20	Mössbauer studies on laser evaporated iron atoms and their reactions with oxygen in argon matrices. <i>Applied Radiation and Isotopes</i> , 2000, 52, 157-164.	1.5	34
21	Dynamics of diffuse carbon dioxide emissions from Cumbre Vieja volcano, La Palma, Canary Islands. <i>Bulletin of Volcanology</i> , 2015, 77, 1.	3.0	30
22	Relationship between geological structure and helium isotopes in deep ground-water from the Osaka Basin: Application to deep groundwater hydrology. <i>Geochemical Journal</i> , 2008, 42, 61-74.	1.0	29
23	Searching and detecting earthquake geochemical precursors in CO ₂ -rich groundwaters from Galicia, Spain. <i>Geochemical Journal</i> , 2008, 42, 75-83.	1.0	28
24	Slab-derived halogens and noble gases illuminate closed system processes controlling volatile element transport into the mantle wedge. <i>Earth and Planetary Science Letters</i> , 2017, 457, 106-116.	4.4	28
25	Deep mantle origin of kimberlite magmas revealed by neon isotopes. <i>Geophysical Research Letters</i> , 2006, 33, .	4.0	27
26	Progressive Melt Extraction from Upwelling Mantle Constrained by the Kita-Matsuura Basalts in NW Kyushu, SW Japan. <i>Journal of Petrology</i> , 2009, 50, 725-779.	2.8	27
27	Ore-forming mechanism for the Xiaoxinancha Au-rich Cu deposit in Yanbian, Jilin Province, China: Evidence from noble gas isotope geochemistry of fluid inclusions in minerals. <i>Science in China Series D: Earth Sciences</i> , 2008, 51, 216-228.	0.9	26
28	K ⁴⁰ Ar ages determined for post-caldera volcanic products from Aso volcano, central Kyushu, Japan. <i>Journal of Volcanology and Geothermal Research</i> , 2012, 229-230, 64-73.	2.1	26
29	Diffuse volcanic gas emission and thermal energy release from the summit crater of Pico do Fogo, Cape Verde. <i>Bulletin of Volcanology</i> , 2015, 77, 1.	3.0	26
30	Fumarole/plume and diffuse CO ₂ emission from Sierra Negra caldera, Galapagos archipelago. <i>Bulletin of Volcanology</i> , 2012, 74, 1509-1519.	3.0	25
31	Noble gas and carbon isotopes of fumarolic gas from Iwojima volcano, Izu Ogasawara arc, Japan: implications for the origin of unusual arc magmatism. <i>Chemical Geology</i> , 2004, 209, 153-173.	3.3	23
32	Helium emission at Cumbre Vieja volcano, La Palma, Canary Islands. <i>Chemical Geology</i> , 2012, 312-313, 138-147.	3.3	23
33	Construction of I-Xe and ⁴⁰ Ar- ³⁹ Ar Dating System Using a Modified VG3600 Mass Spectrometer and the First I-Xe Data Obtained in Japan. <i>Journal of the Mass Spectrometry Society of Japan</i> , 2004, 52, 219-229.	0.1	23
34	Origin and fate of deep-sea seeping methane bubbles at Kuroshima Knoll, Ryukyu forearc region, Japan. <i>Geochemical Journal</i> , 2010, 44, 461-476.	1.0	22
35	High ³ He/ ⁴ He ratio in xenoliths from Takashima: Evidence for plume type volcanism in southwestern Japan. <i>Geophysical Research Letters</i> , 2000, 27, 1211-1214.	4.0	20
36	Deep-mantle-derived noble gases in metamorphic diamonds from the Kokchetav massif, Kazakhstan. <i>Earth and Planetary Science Letters</i> , 2011, 307, 439-449.	4.4	20

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37	Evidence of a modern deep water magmatic hydrothermal system in the Canary Basin (eastern central) Tj ETQq1 1 0.784314rgBT /Over	2.5	28
38	Geomorphology, morphometry, spatial distribution and ages of mafic monogenetic volcanoes of the Peinado and Incahuasi fields, southernmost Central Volcanic Zone of the Andes. Journal of Volcanology and Geothermal Research, 2020, 401, 106966.	2.1	20
39	He- ⁴ and Nd- ¹⁴³ isotopic compositions of late Pleistocene felsic plutonic back arc basin rocks from Ulleungdo volcanic island, South Korea: Implications for the genesis of young plutonic rocks in a back arc basin. Chemical Geology, 2008, 253, 180-195.	3.3	19
40	Gas pathways and remotely triggered earthquakes beneath Mount Fuji, Japan. Geology, 2016, 44, 127-130.	4.4	19
41	Fluid overpressure in subduction plate boundary caused by mantle-derived fluids. Earth and Planetary Science Letters, 2020, 538, 116199.	4.4	19
42	Estimation of groundwater residence time in a geologically active region by coupling ⁴ He concentration with helium isotopic ratios. Geophysical Research Letters, 2005, 32, .	4.0	18
43	Eruptive history of Incahuasi, Falso Azufre and El C ³ ndor Quaternary composite volcanoes, southern Central Andes. Bulletin of Volcanology, 2018, 80, 1.	3.0	17
44	Diffuse CO ₂ degassing and volcanic activity at Cape Verde islands, West Africa. Earth, Planets and Space, 2015, 67, .	2.5	16
45	Noble gas signals in corals predict submarine volcanic eruptions. Chemical Geology, 2018, 480, 28-34.	3.3	16
46	Accurate Determination of the Absolute ³ He/ ⁴ He Ratio of a Synthesized Helium Standard Gas (Helium Standard of Japan, HESJ): Toward Revision of the Atmospheric ³ He/ ⁴ He Ratio. Geochemistry, Geophysics, Geosystems, 2018, 19, 3995-4005.	2.5	16
47	Neutron lifetime measurement with pulsed cold neutrons. Progress of Theoretical and Experimental Physics, 2020, 2020, .	6.6	16
48	Plume-lithosphere interaction, and the formation of fibrous diamonds. Geochemical Perspectives Letters, 0, 8, 26-30.	5.0	16
49	Carbon dioxide emission from Katanuma volcanic lake, Japan. Earth, Planets and Space, 2011, 63, 1151-1156.	2.5	15
50	Analysis of long- and short-term temporal variations of the diffuse CO ₂ emission from Timanfaya volcano, Lanzarote, Canary Islands. Applied Geochemistry, 2012, 27, 2486-2499.	3.0	15
51	A Paleogene magmatic overprint on Cretaceous seamounts of the western Pacific. Island Arc, 2021, 30, e12386.	1.1	15
52	Evidence from acoustic imaging for submarine volcanic activity in 2012 off the west coast of El Hierro (Canary Islands, Spain). Bulletin of Volcanology, 2014, 76, 1.	3.0	14
53	Development of time projection chamber for precise neutron lifetime measurement using pulsed cold neutron beams. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2015, 799, 187-196.	1.6	13
54	Petit-spot volcanoes on the oldest portion of the Pacific plate. Deep-Sea Research Part I: Oceanographic Research Papers, 2019, 154, 103142.	1.4	13

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55	Lateral magma intrusion from a caldera-forming magma chamber: Constraints from geochronology and geochemistry of volcanic products from lateral cones around the Aso caldera, SW Japan. <i>Chemical Geology</i> , 2013, 352, 202-210.	3.3	12
56	Noble gas composition of subcontinental lithospheric mantle: An extensively degassed reservoir beneath Southern Patagonia. <i>Earth and Planetary Science Letters</i> , 2016, 450, 263-273.	4.4	12
57	Slab-derived components in the subcontinental lithospheric mantle beneath Chilean Patagonia: Geochemistry and Sr- ⁸⁷ Rb/ ⁸⁶ Rb and Pb isotopes of mantle xenoliths and host basalt. <i>Lithos</i> , 2017, 292-293, 179-197.	1.4	12
58	Helium isotopes in the Izu Peninsula, Japan: Relation of magma and crustal activity. <i>Journal of Volcanology and Geothermal Research</i> , 2011, 199, 118-126.	2.1	11
59	Rifting of Kyushu, Japan, based on the fault-controlled concurrent eruption of oceanic island basalt-type and island arc-type lavas. <i>Bulletin of Volcanology</i> , 2012, 74, 1121-1139.	3.0	11
60	Volcano-ice-sea interaction in the Cerro Santa Marta area, northwest James Ross Island, Antarctic Peninsula. <i>Journal of Volcanology and Geothermal Research</i> , 2015, 297, 89-108.	2.1	11
61	Instrumentation and Method Development for On-Site Analysis of Helium Isotopes. <i>Analytical Chemistry</i> , 2017, 89, 7535-7540.	6.5	11
62	² D and ¹⁸ O variations of the magmatic system beneath Deception Island volcano (Antarctica): Implications for magma ascent and eruption forecasting. <i>Chemical Geology</i> , 2020, 542, 119595.	3.3	11
63	He-Ar-H-O isotopic signatures in AuAg bearing ore fluids of the Sunshin epithermal gold-silver ore deposits, South Korea. <i>Chemical Geology</i> , 2012, 320-321, 128-139.	3.3	10
64	Recycled Components in Mantle Plumes Deduced From Variations in Halogens (Cl, Br, and I), Trace Elements, and ³ He/ ⁴ He Along the Hawaiian-Emperor Seamount Chain. <i>Geochemistry, Geophysics, Geosystems</i> , 2019, 20, 277-294.	2.5	10
65	Cycling of CO ₂ and N ₂ Along the Hikurangi Subduction Margin, New Zealand: An Integrated Geological, Theoretical, and Isotopic Approach. <i>Geochemistry, Geophysics, Geosystems</i> , 2021, 22, e2021GC009650.	2.5	10
66	The acid crater lake of Taal Volcano, Philippines: hydrogeochemical and hydroacoustic data related to the 2010-11 volcanic unrest. <i>Geological Society Special Publication</i> , 2017, 437, 131-152.	1.3	9
67	Non-cratonic Diamonds from UHP Metamorphic Terranes, Ophiolites and Volcanic Sources. <i>Reviews in Mineralogy and Geochemistry</i> , 2022, 88, 191-255.	4.8	9
68	Spatial and temporal variations of diffuse CO ₂ ; degassing at the Santa Ana-Coatepeque volcanic complex, El Salvador, Central America. , 2004, , .		8
69	Magmatic processes of Unzen volcano revealed by excess argon distribution in zero-age plagioclase phenocrysts. <i>Journal of Volcanology and Geothermal Research</i> , 2008, 175, 189-207.	2.1	8
70	Evolution history of the crust underlying Cerro Pampa, Argentine Patagonia: Constraint from LA-ICPMS U-Pb ages for exotic zircons in the Mid-Miocene adakite. <i>Geochemical Journal</i> , 2013, 47, 235-247.	1.0	8
71	Carbon dioxide and helium dissolved gases in groundwater at central Tenerife Island, Canary Islands: chemical and isotopic characterization. <i>Bulletin of Volcanology</i> , 2015, 77, 1.	3.0	8
72	Halogen Heterogeneity in the Lithosphere and Evolution of Mantle Halogen Abundances Inferred From Intraplate Mantle Xenoliths. <i>Geochemistry, Geophysics, Geosystems</i> , 2019, 20, 952-973.	2.5	8

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73	Archean to Paleoproterozoic seawater halogen ratios recorded by fluid inclusions in chert and hydrothermal quartz. <i>American Mineralogist</i> , 2020, 105, 1317-1325.	1.9	8
74	Geochemical evidence of different sources of long-period seismic events at Deception volcano, South Shetland Islands, Antarctica. <i>Antarctic Science</i> , 2015, 27, 557-565.	0.9	7
75	Surface CO ₂ emission and rising bubble plumes from degassing of crater lakes in S�o Miguel Island, Azores. <i>Geological Society Special Publication</i> , 2017, 437, 233-252.	1.3	7
76	Alkali basalt from the Seifu Seamount in the Sea of Japan: post-spreading magmatism in a back-arc setting. <i>Solid Earth</i> , 2020, 11, 23-36.	2.8	7
77	Determination of halogens in geological reference materials using neutron irradiation noble gas mass spectrometry. <i>Chemical Geology</i> , 2021, 582, 120420.	3.3	7
78	Mantle wedge deformation by subducting and rotating slab and its possible implication. <i>Earth, Planets and Space</i> , 2006, 58, 1087-1092.	2.5	6
79	Single grain noble gas analysis of Antarctic micrometeorites by stepwise heating method with a newly constructed miniature furnace. <i>Earth, Planets and Space</i> , 2011, 63, 1097-1111.	2.5	6
80	Hydrous fluid as the growth media of natural polycrystalline diamond, carbonado: Implication from IR spectra and microtextural observations. <i>American Mineralogist</i> , 2012, 97, 1366-1372.	1.9	6
81	Heat and Helium-3 Fluxes from Teide Volcano, Canary Islands, Spain. <i>Geofluids</i> , 2019, 2019, 1-12.	0.7	6
82	Variations in thermal state revealed by the geochemistry of fumarolic gases and hot-spring waters of the Tateyama volcanic hydrothermal system, Japan. <i>Bulletin of Volcanology</i> , 2019, 81, 1.	3.0	6
83	Changes in the thermal energy and the diffuse 3He and 4He degassing prior to the 2014�2015 eruption of Pico do Fogo volcano, Cape Verde. <i>Journal of Volcanology and Geothermal Research</i> , 2021, 416, 107271.	2.1	6
84	Central vs. lateral growth and evolution of the Peinado composite volcano, southern Central Volcanic Zone of the Andes. <i>Journal of Volcanology and Geothermal Research</i> , 2022, 425, 107532.	2.1	6
85	Reply to comment from Blanco et al. (2015) on "Evidence from acoustic imaging for submarine volcanic activity in 2012 off the west coast of El Hierro (Canary Islands, Spain) by P�rez et al. [<i>Bull. Volcanol.</i> (2014), 76:882�896]. <i>Bulletin of Volcanology</i> , 2015, 77, 1.	3.0	5
86	Origin of hydrocarbon and noble gases, carbon dioxide and molecular nitrogen in Devonian, Pennsylvanian and Miocene strata of the Polish Lublin and Ukrainian Lviv basins, southern part of the Upper Silesian Coal Basin and western part of the Carpathian Foredeep (Poland). <i>Applied Geochemistry</i> , 2019, 108, 104371.	3.0	5
87	New project for precise neutron lifetime measurement at J-PARC. <i>EPJ Web of Conferences</i> , 2019, 219, 03003.	0.3	5
88	Construction of a Newly Designed Small-Size Mass Spectrometer for Helium Isotope Analysis: Toward the Continuous Monitoring Of 3He/4He Ratios In Natural Fluids. <i>Mass Spectrometry</i> , 2012, 1, A0009-A0009.	0.6	4
89	Leakage of magmatic�hydrothermal volatiles from a crater bottom formed by a submarine eruption in 1989 at Teishi Knoll, Japan. <i>Journal of Volcanology and Geothermal Research</i> , 2014, 270, 90-98.	2.1	4
90	Improved accuracy in the determination of the thermal cross section of ^{14}N . <i>Physics</i> , 2019, 2019, .	6.6	4

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91	Alkalic to tholeiitic magmatism near a mid-ocean ridge: petrogenesis of the KR1 Seamount Trail adjacent to the Australian-Antarctic Ridge. <i>International Geology Review</i> , 2021, 63, 1215-1235.	2.1	4
92	Hydrochemistry and noble gas geochemistry of geothermal waters in Chungcheong Province, South Korea. <i>Geochemical Journal</i> , 2016, 50, 89-103.	1.0	4
93	Noble gas variation during partial crustal melting and magma ascent processes. <i>Chemical Geology</i> , 2022, 588, 120635.	3.3	4
94	Traces of Slab-derived Fluids Revealed by Halogens in Mantle-derived Rocks. <i>Journal of Geography (Chigaku Zasshi)</i> , 2015, 124, 445-471.	0.3	3
95	History and Current Status of Noble Gas Mass Spectrometry to Develop New Ideas Based on Study of the Past. <i>Journal of the Mass Spectrometry Society of Japan</i> , 2015, 63, 1-30.	0.1	3
96	Origin of hydrocarbon and noble gases, carbon dioxide and molecular nitrogen in the Miocene strata of the eastern part of the Polish Carpathian Foredeep: Isotopic and geological approach. <i>Applied Geochemistry</i> , 2020, 122, 104732.	3.0	3
97	Halogen heterogeneity in the subcontinental lithospheric mantle revealed by I/Br ratios in kimberlites and their mantle xenoliths from South Africa, Greenland, China, Siberia, Canada, and Brazil. <i>American Mineralogist</i> , 2021, , .	1.9	3
98	Cretaceous to Miocene NW Pacific Plate Kinematic Constraints: Paleomagnetism and Ar ⁴⁰ /Ar ³⁹ Geochronology in the Mineoka Ophiolite Complex (Japan). <i>Journal of Geophysical Research: Solid Earth</i> , 2021, 126, e2020JB021492.	3.4	3
99	Geochemical and isotopic evidence of volcanic plumbing system processes from fumarolic gases of Taal volcano, Philippines, prior to the January 2020 eruption. <i>Chemical Geology</i> , 2021, 574, 120216.	3.3	3
100	Volcanología y geocronología de extensos flujos basálticos neógeno cuaternarios del sureste de Payenia, centro-oeste de Argentina. <i>Andean Geology</i> , 2019, 46, 490.	0.5	3
101	Thermal energy and diffuse ⁴ He and ³ He degassing released in volcanic-geothermal systems. <i>Renewable Energy</i> , 2022, 182, 17-31.	8.9	3
102	Noble gas studies of mantle-derived xenoliths: mantle metasomatism revealed by noble gas isotopes-a review. <i>Ganseki Kobutsu Kagaku</i> , 2005, 34, 173-185.	0.1	2
103	Formation of Stanley Patch volcanic cone: New insights into the evolution of Deception Island caldera (Antarctica). <i>Journal of Volcanology and Geothermal Research</i> , 2021, 415, 107249.	2.1	2
104	Partial melting and subduction-related metasomatism recorded by geochemical and isotope (He-Ne-Ar-Sr-Nd) compositions of spinel lherzolite xenoliths from Coyhaique, Chilean Patagonia. <i>Gondwana Research</i> , 2021, 98, 257-276.	6.0	2
105	Volcanology and inflation structures of an extensive basaltic lava flow in the Payenia Volcanic Province, extra-Andean back arc of Argentina. <i>Andean Geology</i> , 2019, 46, 279.	0.5	2
106	Mantle-derived xenoliths with hotspot type helium in Cenozoic alkali, basalt, northwestern Kyushu, Japan. <i>Science Bulletin</i> , 1998, 43, 123-123.	1.7	0
107	Constraints on Primordial Noble Gas Reservoir Deep in the Earth by High-Pressure and High-Temperature Experiments. <i>Review of High Pressure Science and Technology/Koatsuryoku No Kagaku To Gijutsu</i> , 2017, 27, 266-277.	0.0	0
108	Fundamental Physics Activities with Pulsed Neutron at J-PARC(BL05). , 2018, , .		0

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109	Multiple shock events recorded in the Northwest Africa 2139 LL6 chondrite: Implications for collisional histories of the LL chondrite parent body. <i>Meteoritics and Planetary Science</i> , 2021, 56, 2230.	1.6	0