

David R Hilton

List of Publications by Year in descending order

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3457
citing authors

#	ARTICLE	IF	CITATIONS
1	Evidence from gas-rich ultramafic xenoliths for Superplume-derived recycled volatiles in the East African sub-continental mantle. <i>Chemical Geology</i> , 2022, 589, 120682.	3.3	2
2	Limited underthrusting of India below Tibet: $^3\text{He}/^4\text{He}$ analysis of thermal springs locates the mantle suture in continental collision. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, e2113877119.	7.1	38
3	Heterogeneous mantle-derived helium isotopes in the Canary Islands and other ocean islands. <i>Geology</i> , 2021, 49, 120-124.	4.4	9
4	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
5	Detection of a widespread mantle component of ^3He in thermal springs of Lhasa Block and Tethyan Himalaya, eastern Tibet: evidence for rollback of the Indian-Asian mantle suture south of the Yarlung suture zone, and asthenospheric upwelling beneath the Lhasa block. <i>Acta Geologica Sinica</i> , 2019, 93, 56-57.	1.4	3
6	Carbon cycling at the Sunda margin, Indonesia: A regional study with global implications. <i>Geology</i> , 2019, 47, 483-486.	4.4	19
7	Melt-modified lithosphere beneath Ross Island and its role in the tectono-magmatic evolution of the West Antarctic Rift System. <i>Chemical Geology</i> , 2019, 518, 45-54.	3.3	23
8	Differential Diffusion of Helium Isotopes in Glass, Quantum-tunneling ^3He Enrichment, and Portable $^3\text{He}/^4\text{He}$ Monitoring of Mantle Processes. <i>Scientific Reports</i> , 2019, 9, 5213.	3.3	2
9	Carbon Fluxes and Primary Magma CO_2 Contents Along the Global Mid-Ocean Ridge System. <i>Geochemistry, Geophysics, Geosystems</i> , 2019, 20, 1387-1424.	2.5	74
10	Spatial distribution of helium isotopes in Icelandic geothermal fluids and volcanic materials with implications for location, upwelling and evolution of the Icelandic mantle plume. <i>Chemical Geology</i> , 2018, 480, 12-27.	3.3	33
11	The trace element and Sr-Nd-Pb isotope geochemistry of Juan Fernandez lavas reveal variable contributions from a high- $^3\text{He}/^4\text{He}$ mantle plume. <i>Chemical Geology</i> , 2018, 476, 280-291.	3.3	11
12	Multi-level magma plumbing at Agung and Batur volcanoes increases risk of hazardous eruptions. <i>Scientific Reports</i> , 2018, 8, 10547.	3.3	24
13	Magma reservoir dynamics at Toba caldera, Indonesia, recorded by oxygen isotope zoning in quartz. <i>Scientific Reports</i> , 2017, 7, 40624.	3.3	36
14	Isotope systematics of Icelandic thermal fluids. <i>Journal of Volcanology and Geothermal Research</i> , 2017, 337, 146-164.	2.1	47
15	Recycled noble gases preserved in podiform chromitites from Luobusa, Tibet. <i>Chemical Geology</i> , 2017, 469, 97-109.	3.3	5
16	Helium-oxygen-osmium isotopic and elemental constraints on the mantle sources of the Deccan Traps. <i>Earth and Planetary Science Letters</i> , 2017, 478, 245-257.	4.4	10
17	Subducted lithosphere controls halogen enrichments in the Iceland mantle plume source. <i>Geology</i> , 2016, 44, 679-682.	4.4	32
18	Recycling of crustal material by the Iceland mantle plume: New evidence from nitrogen elemental and isotope systematics of subglacial basalts. <i>Geochimica Et Cosmochimica Acta</i> , 2016, 176, 206-226.	3.9	34

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19	Turkish geothermal fields as natural analogues of CO ₂ storage sites: Gas geochemistry and implications for CO ₂ trapping mechanisms. <i>Geothermics</i> , 2016, 64, 96-110.	3.4	28
20	Continental smokers couple mantle degassing and distinctive microbiology within continents. <i>Earth and Planetary Science Letters</i> , 2016, 435, 22-30.	4.4	42
21	Evidence for primordial water in Earth's deep mantle. <i>Science</i> , 2015, 350, 795-797.	12.6	159
22	Helium isotopic evidence for modification of the cratonic lithosphere during the Permo-Triassic Siberian flood basalt event. <i>Lithos</i> , 2015, 216-217, 73-80.	1.4	25
23	The helium flux from the continents and ubiquity of low- ³ He/ ⁴ He recycled crust and lithosphere. <i>Geochimica Et Cosmochimica Acta</i> , 2015, 153, 116-133.	3.9	83
24	Post-earthquake anomalies in He- ⁴⁰ CO ₂ isotope and relative abundance systematics of thermal waters: The case of the 2011 Van earthquake, eastern Anatolia, Turkey. <i>Chemical Geology</i> , 2015, 411, 1-11.	3.3	10
25	Mantle-derived helium in hot springs of the Cordillera Blanca, Peru: Implications for mantle-to-crust fluid transfer in a flat-slab subduction setting. <i>Chemical Geology</i> , 2015, 417, 200-209.	3.3	29
26	Trace element and Sr-Nd-Pb isotope geochemistry of Rungwe Volcanic Province, Tanzania: implications for a Superplume source for East Africa Rift magmatism. <i>Frontiers in Earth Science</i> , 2014, 2, .	1.8	25
27	A common mantle plume source beneath the entire East African Rift System revealed by coupled helium-neon systematics. <i>Geophysical Research Letters</i> , 2014, 41, 2304-2311.	4.0	72
28	Resolving volatile sources along the western Sunda arc, Indonesia. <i>Chemical Geology</i> , 2013, 339, 263-282.	3.3	30
29	Introduction to the special issue on "Frontiers in Gas Geochemistry". <i>Chemical Geology</i> , 2013, 339, 1-3.	3.3	3
30	Volatile fluxes through the Big Bend section of the San Andreas Fault, California: Helium and carbon-dioxide systematics. <i>Chemical Geology</i> , 2013, 339, 92-102.	3.3	69
31	Crustal volatile release at Merapi volcano; the 2006 earthquake and eruption events. <i>Geology Today</i> , 2013, 29, 96-101.	0.9	10
32	Spatial variations in gas and stable isotope compositions of thermal fluids around Lake Van: Implications for crust-mantle dynamics in eastern Turkey. <i>Chemical Geology</i> , 2012, 300-301, 165-176.	3.3	24
33	An overview of the volatile systematics of the Lau Basin " Resolving the effects of source variation, magmatic degassing and crustal contamination. <i>Geochimica Et Cosmochimica Acta</i> , 2012, 85, 88-113.	3.9	35
34	Crustal CO ₂ liberation during the 2006 eruption and earthquake events at Merapi volcano, Indonesia. <i>Geophysical Research Letters</i> , 2012, 39, .	4.0	95
35	Petrology and Sr-Nd-Pb-He isotope geochemistry of postspreading lavas on fossil spreading axes off Baja California Sur, Mexico. <i>Geochemistry, Geophysics, Geosystems</i> , 2011, 12, n/a-n/a.	2.5	19
36	Helium isotope variations between R�union Island and the Central Indian Ridge (17��21�S): New evidence for ridge-hot spot interaction. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	60

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37	Major and trace element and Sr-Nd isotope signatures of the northern Lau Basin lavas: Implications for the composition and dynamics of the back-arc basin mantle. <i>Journal of Geophysical Research</i> , 2011, 116, n/a-n/a.	3.3	38
38	Origin of $^3\text{He}/^4\text{He}$ ratios in HIMU-type basalts constrained from Canary Island lavas. <i>Earth and Planetary Science Letters</i> , 2011, 305, 226-234.	4.4	68
39	Nitrogen sources and recycling at subduction zones: Insights from the Izu-Bonin-Mariana arc. <i>Geochemistry, Geophysics, Geosystems</i> , 2010, 11, .	2.5	54
40	Carbon release from submarine seeps at the Costa Rica fore arc: Implications for the volatile cycle at the Central America convergent margin. <i>Geochemistry, Geophysics, Geosystems</i> , 2010, 11, .	2.5	39
41	Fluid sources and pathways of the Costa Rica erosional convergent margin. <i>Geochemistry, Geophysics, Geosystems</i> , 2010, 11, .	2.5	19
42	No slab-derived CO_2 in Mariana Trough back-arc basalts: Implications for carbon subduction and for temporary storage of CO_2 beneath slow spreading ridges. <i>Geochemistry, Geophysics, Geosystems</i> , 2010, 11, .	2.5	18
43	Sulfur isotope fractionation during the May 2003 eruption of Anatahan volcano, Mariana Islands: Implications for sulfur sources and plume processes. <i>Geochimica Et Cosmochimica Acta</i> , 2010, 74, 5382-5397.	3.9	22
44	The effects of volatile recycling, degassing and crustal contamination on the helium and carbon geochemistry of hydrothermal fluids from the Southern Volcanic Zone of Chile. <i>Chemical Geology</i> , 2009, 266, 38-49.	3.3	81
45	Degassing of mantle-derived CO_2 and He from springs in the southern Colorado Plateau region: Neotectonic connections and implications for groundwater systems. <i>Bulletin of the Geological Society of America</i> , 2009, 121, 1034-1053.	3.3	149
46	Geochemical Monitoring of Geothermal Waters (2002-2004) along the North Anatolian Fault Zone, Turkey: Spatial and Temporal Variations and Relationship to Seismic Activity. <i>Pure and Applied Geophysics</i> , 2008, 165, 17-43.	1.9	23
47	Major and trace element and Sr-Nd isotope signatures of lavas from the Central Lau Basin: Implications for the nature and influence of subduction components in the back-arc mantle. <i>Journal of Volcanology and Geothermal Research</i> , 2008, 178, 657-670.	2.1	82
48	Helium-4 characteristics of groundwaters from Central Australia: Comparative chronology with chlorine-36 and carbon-14 dating techniques. <i>Journal of Hydrology</i> , 2008, 348, 176-194.	5.4	37
49	Aqueous and isotope geochemistry of mineral springs along the southern margin of the Tibetan plateau: Implications for fluid sources and regional degassing of CO_2 . <i>Geochemistry, Geophysics, Geosystems</i> , 2008, 9, .	2.5	48
50	Evidence for crustal degassing of CF_4 and SF_6 in Mojave Desert groundwaters. <i>Geochimica Et Cosmochimica Acta</i> , 2008, 72, 999-1013.	3.9	51
51	Helium-carbon relationships in geothermal fluids of western Anatolia, Turkey. <i>Chemical Geology</i> , 2008, 247, 305-321.	3.3	66
52	Geochemical Monitoring of Geothermal Waters (2002-2004) along the North Anatolian Fault Zone, Turkey: Spatial and Temporal Variations and Relationship to Seismic Activity. , 2008, , 17-43.		1
53	The Leaking Mantle. <i>Science</i> , 2007, 318, 1389-1390.	12.6	33
54	Dissected hydrologic system at the Grand Canyon: Interaction between deeply derived fluids and plateau aquifer waters in modern springs and travertine. <i>Geology</i> , 2006, 34, 25.	4.4	125

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55	Geochemistry and isotopic characteristics of the Caviahue-Copahue volcanic complex, Province of Neuquén, Argentina. , 2006, , .		7
56	Absence of a high time-integrated $^3\text{He}/(\text{U}+\text{Th})$ source in the mantle beneath continents. <i>Geology</i> , 2005, 33, 733.	4.4	42
57	Nitrogen isotopes of the mantle: Insights from mineral separates. <i>Geophysical Research Letters</i> , 2005, 32, .	4.0	46
58	The May 2003 eruption of Anatahan volcano, Mariana Islands: Geochemical evolution of a silicic island-arc volcano. <i>Journal of Volcanology and Geothermal Research</i> , 2005, 146, 139-170.	2.1	94
59	Introduction to the Special Issue on the 2003 Eruption of Anatahan Volcano, Commonwealth of the Northern Mariana Islands (CNMI). <i>Journal of Volcanology and Geothermal Research</i> , 2005, 146, 1-7.	2.1	10
60	Source and movement of helium in the eastern Morongo groundwater Basin: The influence of regional tectonics on crustal and mantle helium fluxes. <i>Geochimica Et Cosmochimica Acta</i> , 2005, 69, 3857-3872.	3.9	95
61	Sources, degassing, and contamination of CO_2 , H_2O , He, Ne, and Ar in basaltic glasses from Kolbeinsey Ridge, North Atlantic. <i>Geochimica Et Cosmochimica Acta</i> , 2005, 69, 5729-5746.	3.9	24
62	Helium isotopes in peridotite mineral phases from Hyblean Plateau xenoliths (south-eastern Sicily,) Tj ETQq0 0 0 rgBT/Overlogg 10 Tf 50	3.3	58
63	Gas geochemistry of a shallow submarine hydrothermal vent associated with the El RequesÃ³n fault zone, BahÃa ConcepciÃ³n, Baja California Sur, MÃ©xico. <i>Chemical Geology</i> , 2005, 224, 82-95.	3.3	44
64	Volatile and N isotope chemistry of the Molucca Sea collision zone: Tracing source components along the Sangihe Arc, Indonesia. <i>Geochemistry, Geophysics, Geosystems</i> , 2005, 6, n/a-n/a.	2.5	30
65	Continental-scale links between the mantle and groundwater systems of the western United States: Evidence from travertine springs and regional He isotope data. <i>GSA Today</i> , 2005, 15, 4.	2.0	49
66	The crater lake and hydrothermal system of Mount Pinatubo, Philippines: evolution in the decade after eruption. <i>Bulletin of Volcanology</i> , 2004, 66, 149-167.	3.0	31
67	Nitrogen systematics and gas fluxes of subduction zones: Insights from Costa Rica arc volatiles. <i>Geochemistry, Geophysics, Geosystems</i> , 2004, 5, n/a-n/a.	2.5	81
68	Tracing magma sources in an arc-arc collision zone: Helium and carbon isotope and relative abundance systematics of the Sangihe Arc, Indonesia. <i>Geochemistry, Geophysics, Geosystems</i> , 2004, 5, n/a-n/a.	2.5	33
69	Climate variability in the Botswana Kalahari from the late Pleistocene to the present day. <i>Geophysical Research Letters</i> , 2004, 31, n/a-n/a.	4.0	62
70	The CO_2 -He-Ar- H_2O systematics of the Manus back-arc basin: resolving source composition from degassing and contamination effects. <i>Geochimica Et Cosmochimica Acta</i> , 2004, 68, 1837-1855.	3.9	49
71	Helium isotope studies in the Mojave Desert, California: implications for groundwater chronology and regional seismicity. <i>Chemical Geology</i> , 2003, 202, 95-113.	3.3	60
72	Contrasting He- $\delta^{13}\text{C}$ relationships in Nicaragua and Costa Rica: insights into C cycling through subduction zones. <i>Earth and Planetary Science Letters</i> , 2003, 214, 499-513.	4.4	161

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73	Resolving Sediment Subduction and Crustal Contamination in the Lesser Antilles Island Arc: a Combined He ³ -Sr Isotope Approach. <i>Journal of Petrology</i> , 2002, 43, 143-170.	2.8	62
74	Subduction and Recycling of Nitrogen Along the Central American Margin. <i>Science</i> , 2002, 297, 1154-1157.	12.6	178
75	A quadrupole-based mass spectrometric system for the determination of noble gas abundances in fluids. <i>Geochemistry, Geophysics, Geosystems</i> , 2002, 3, 1-10.	2.5	37
76	9. Noble Gases and Volatile Recycling at Subduction Zones. , 2002, , 319-370.		85
77	Nucleogenic neon in high 3He/4He lavas from the Manus back-arc basin: a new perspective on He-Ne decoupling. <i>Earth and Planetary Science Letters</i> , 2001, 194, 53-66.	4.4	30
78	Contrasting hydrothermal activity at Sierra Negra and Alcedo volcanoes, Galapagos Archipelago, Ecuador. <i>Bulletin of Volcanology</i> , 2000, 62, 34-52.	3.0	42
79	Evidence for an 18O-depleted mantle plume from contrasting 18O/16O ratios of back-arc lavas from the Manus Basin and Mariana Trough. <i>Earth and Planetary Science Letters</i> , 2000, 176, 171-183.	4.4	52
80	Southern limit of mantle-derived geothermal helium emissions in Tibet: implications for lithospheric structure. <i>Earth and Planetary Science Letters</i> , 2000, 180, 297-308.	4.4	116
81	Extreme 3He/4He ratios in northwest Iceland: constraining the common component in mantle plumes. <i>Earth and Planetary Science Letters</i> , 1999, 173, 53-60.	4.4	158
82	CO ₂ , ¹³ C/ ¹² C and H ₂ O variability in natural basaltic glasses: a study comparing stepped heating and ftir spectroscopic techniques. <i>Geochimica Et Cosmochimica Acta</i> , 1999, 63, 1805-1813.	3.9	30
83	High 3He/4He ratios in the Manus backarc basin: Implications for mantle mixing and the origin of plumes in the western Pacific Ocean. <i>Geology</i> , 1998, 26, 1007.	4.4	65
84	Evidence for extensive degassing of the Hawaiian Mantle Plume from helium-carbon relationships at Kilauea Volcano. <i>Geophysical Research Letters</i> , 1997, 24, 3065-3068.	4.0	60
85	The helium and carbon isotope systematics of a continental geothermal system: results from monitoring studies at Long Valley caldera (California, U.S.A.). <i>Chemical Geology</i> , 1996, 127, 269-295.	3.3	146
86	Carbon dioxide and helium in hydrothermal fluids from Loihi Seamount, Hawaii, USA: Temporal variability and implications for the release of mantle volatiles. <i>Geochimica Et Cosmochimica Acta</i> , 1994, 58, 1219-1227.	3.9	52