Peter Barry

List of Publications by Year in descending order

69 papers	2,223 citations	172457 29 h-index	233421 45 g-index
77 all docs	77 docs citations	77 times ranked	1802 citing authors

#	Article	IF	Citations
1	Helium and carbon isotope systematics of cold â€œmazukuâ€•CO2 vents and hydrothermal gases and fluids from Rungwe Volcanic Province, southern Tanzania. Chemical Geology, 2013, 339, 141-156.	3.3	107
2	Superplume metasomatism: Evidence from Siberian mantle xenoliths. Lithos, 2014, 184-187, 209-224.	1.4	107
3	Carbon isotope and abundance systematics of Icelandic geothermal gases, fluids and subglacial basalts with implications for mantle plume-related CO2 fluxes. Geochimica Et Cosmochimica Acta, 2014, 134, 74-99.	3.9	107
4	Forearc carbon sink reduces long-term volatile recycling into the mantle. Nature, 2019, 568, 487-492.	27.8	97
5	The helium flux from the continents and ubiquity of low-3He/4He recycled crust and lithosphere. Geochimica Et Cosmochimica Acta, 2015, 153, 116-133.	3.9	83
6	Carbon Fluxes and Primary Magma CO₂ Contents Along the Global Midâ€Ocean Ridge System. Geochemistry, Geophysics, Geosystems, 2019, 20, 1387-1424.	2.5	74
7	Apparent decoupling of the He and Ne isotope systematics of the Icelandic mantle: The role of He depletion, melt mixing, degassing fractionation and air interaction. Geochimica Et Cosmochimica Acta, 2010, 74, 3307-3332.	3.9	71
8	Volatile fluxes through the Big Bend section of the San Andreas Fault, California: Helium and carbon-dioxide systematics. Chemical Geology, 2013, 339, 92-102.	3.3	69
9	Helium isotopes at Rungwe Volcanic Province, Tanzania, and the origin of East African Plateaux. Geophysical Research Letters, 2011, 38, n/a-n/a.	4.0	67
10	Noble gases solubility models of hydrocarbon charge mechanism in the Sleipner Vest gas field. Geochimica Et Cosmochimica Acta, 2016, 194, 291-309.	3.9	65
11	Subduction-Driven Volatile Recycling: A Global Mass Balance. Annual Review of Earth and Planetary Sciences, 2021, 49, 37-70.	11.0	65
12	End-Permian extinction amplified by plume-induced release of recycled lithospheric volatiles. Nature Geoscience, 2018, 11, 682-687.	12.9	55
13	Temporal variations in fumarole gas chemistry at PoÃ¡s volcano, Costa Rica. Journal of Volcanology and Geothermal Research, 2015, 294, 56-70.	2.1	54
14	Spatially Variable <scp>CO</scp>₂ Degassing in the Main Ethiopian Rift: Implications for Magma Storage, Volatile Transport, and Riftâ€Related Emissions. Geochemistry, Geophysics, Geosystems, 2017, 18, 3714-3737.	2.5	54
15	Rapid microbial methanogenesis during CO2 storage in hydrocarbon reservoirs. Nature, 2021, 600, 670-674.	27.8	54
16	Volatile-rich silicate melts from Oldoinyo Lengai volcano (Tanzania): Implications for carbonatite genesis and eruptive behavior. Earth and Planetary Science Letters, 2013, 361, 379-390.	4.4	53
17	Hydrothermal 15N15N abundances constrain the origins of mantle nitrogen. Nature, 2020, 580, 367-371.	27.8	50
18	Release of subducted sedimentary nitrogen throughout Earthâ€™s mantle. Geochemical Perspectives Letters, 2016, , 148-159.	5.0	45

#	Article	IF	Citations
19	Mantle 3He and CO2 degassing in carbonic and geothermal springs of Colorado and implications for neotectonics of the Rocky Mountains. Geology, 2013, 41, 495-498.	4.4	44
20	Monitoring of temporal and spatial variations in fumarole helium and carbon dioxide characteristics at Po^|^aacute;s and Turrialba volcanoes, Costa Rica (2001-2009). Geochemical Journal, 2010, 44, 431-440.	1.0	43
21	Linking deeply-sourced volatile emissions to plateau growth dynamics in southeastern Tibetan Plateau. Nature Communications, 2021, 12, 4157.	12.8	42
22	The relationship between mantle pH and the deep nitrogen cycle. Geochimica Et Cosmochimica Acta, 2017, 209, 149-160.	3.9	40
23	Gas chemistry and nitrogen isotope compositions of cold mantle gases from Rungwe Volcanic Province, southern Tanzania. Chemical Geology, 2013, 339, 30-42.	3.3	39
24	An evaluation of the C/N ratio of the mantle from natural CO2-rich gas analysis: Geochemical and cosmochemical implications. Earth and Planetary Science Letters, 2020, 551, 116574.	4.4	38
25	Komsomolskaya diamondiferous eclogites: evidence for oceanic crustal protoliths. Contributions To Mineralogy and Petrology, 2014, 167, 1.	3.1	35
26	Identification of chondritic krypton and xenon in Yellowstone gases and the timing of terrestrial volatile accretion. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 13997-14004.	7.1	35
27	Recycling of crustal material by the Iceland mantle plume: New evidence from nitrogen elemental and isotope systematics of subglacial basalts. Geochimica Et Cosmochimica Acta, 2016, 176, 206-226.	3.9	34
28	Plume impingement on the Siberian SCLM: Evidence from Reâ€“Os isotope systematics. Lithos, 2015, 218-219, 141-154.	1.4	32
29	Effect of tectonic processes on biosphereâ€“geosphere feedbacks across a convergent margin. Nature Geoscience, 2021, 14, 301-306.	12.9	32
30	Indigenous nitrogen in the Moon: Constraints from coupled nitrogenâ€“noble gas analyses of mare basalts. Earth and Planetary Science Letters, 2015, 431, 195-205.	4.4	29
31	Tracing enhanced oil recovery signatures in casing gases from the Lost Hills oil field using noble gases. Earth and Planetary Science Letters, 2018, 496, 57-67.	4.4	29
32	Determining gas expulsion vs retention during hydrocarbon generation in the Eagle Ford Shale using noble gases. Geochimica Et Cosmochimica Acta, 2018, 241, 240-254.	3.9	28
33	Twoâ€stage polybaric formation of the new enriched, pyroxeneâ€oikocrystic, lherzolitic shergottite, <scp>NWA</scp> 7397. Meteoritics and Planetary Science, 2014, 49, 1812-1830.	1.6	27
34	Determining fluid migration and isolation times in multiphase crustal domains using noble gases. Geology, 2017, 45, 775-778.	4.4	27
35	Helium isotopic evidence for modification of the cratonic lithosphere during the Permo-Triassic Siberian flood basalt event. Lithos, 2015, 216-217, 73-80.	1.4	25
36	The use of noble gas isotopes to constrain subsurface fluid flow and hydrocarbon migration in the East Texas Basin. Geochimica Et Cosmochimica Acta, 2020, 268, 186-208.	3.9	22

#	Article	IF	Citations
37	Refertilization of lithospheric mantle beneath the Yangtze craton in south-east China: Evidence from noble gases geochemistry. Gondwana Research, 2016, 38, 289-303.	6.0	21
38	Noble gases in conventional and unconventional petroleum systems. Geological Society Special Publication, 2018, 468, 127-149.	1.3	21
39	Occurrence and Sources of Radium in Groundwater Associated with Oil Fields in the Southern San Joaquin Valley, California. Environmental Science & Technology, 2019, 53, 9398-9406.	10.0	21
40	Volatile sources, sinks and pathways: A heliumâ€‘carbon isotope study of Baja California fluids and gases. Chemical Geology, 2020, 550, 119722.	3.3	21
41	High precision nitrogen isotope measurements in oceanic basalts using a static triple collection noble gas mass spectrometer. Geochemistry, Geophysics, Geosystems, 2012, 13, .	2.5	20
42	The principles of helium exploration. Petroleum Geoscience, 2022, 28, .	1.5	19
43	Helium, inorganic and organic carbon isotopes of fluids and gases across the Costa Rica convergent margin. Scientific Data, 2019, 6, 284.	5.3	17
44	Oxygen isotopes in subducted oceanic crust: A new perspective from Siberian diamondiferous eclogites. Geochemistry, Geophysics, Geosystems, 2013, 14, 3479-3493.	2.5	15
45	The use of noble gas isotopes to trace subsurface boiling temperatures in Icelandic geothermal systems. Earth and Planetary Science Letters, 2021, 560, 116805.	4.4	14
46	The origin of high helium concentrations in the gas fields of southwestern Tanzania. Chemical Geology, 2021, 585, 120542.	3.3	14
47	The Helium and Carbon Isotope Characteristics of the Andean Convergent Margin. Frontiers in Earth Science, 0, 10, .	1.8	14
48	Noble Gases in Deepwater Oils of the U.S. Gulf of Mexico. Geochemistry, Geophysics, Geosystems, 2018, 19, 4218-4235.	2.5	13
49	High ³ He/ ⁴ He in central Panama reveals a distal connection to the GalÃ¡pagos plume. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	12
50	High helium reservoirs in the Four Corners area of the Colorado Plateau, USA. Chemical Geology, 2022, 596, 120790.	3.3	12
51	The secondary origin of diamonds: multi-modal radiation tomography of diamondiferous mantle eclogites. International Geology Review, 2014, 56, 1172-1180.	2.1	11
52	Determining the role of diffusion and basement flux in controlling 4He distribution in sedimentary basin fluids. Earth and Planetary Science Letters, 2021, 574, 117175.	4.4	11
53	Groundwater residence time estimates obscured by anthropogenic carbonate. Science Advances, 2021, 7, .	10.3	10
54	Heterogeneous kimberlite metasomatism revealed from a combined He-Os isotope study of Siberian megacrystalline dunite xenoliths. Geochimica Et Cosmochimica Acta, 2019, 266, 220-236.	3.9	8

#	Article	IF	Citations
55	A Novel Method for the Extraction, Purification, and Characterization of Noble Gases in Produced Fluids. Geochemistry, Geophysics, Geosystems, 2019, 20, 5588-5597.	2.5	8
56	A new syringe pump apparatus for the retrieval and temporal analysis of helium in groundwaters and geothermal fluids. Geochemistry, Geophysics, Geosystems, 2009, 10, .	2.5	7
57	Recycling of nitrogen and light noble gases in the Central American subduction zone: Constraints from 15N15N. Earth and Planetary Science Letters, 2021, 571, 117112.	4.4	7
58	Noble gas signatures constrain oil-field water as the carrier phase of hydrocarbons occurring in shallow aquifers in the San Joaquin Basin, USA. Chemical Geology, 2021, 584, 120491.	3.3	7
59	The metamorphic evolution of the high-pressure Kechros complex in East Rhodope (NE Greece): Implications from Naâ€“Al-rich leucocratic rocks within antigorite serpentinites. Lithos, 2013, 177, 17-33.	1.4	6
60	Nitrogen and noble gases reveal a complex history of metasomatism in the Siberian lithospheric mantle. Earth and Planetary Science Letters, 2021, 556, 116707.	4.4	6
61	Investigating the effect of enhanced oil recovery on the noble gas signature of casing gases and produced waters from selected California oil fields. Chemical Geology, 2021, 584, 120540.	3.3	6
62	He, Ne, Ar and CO2 systematics of the Rungwe Volcanic Province, Tanzania: Implications for fluid source and dynamics. Chemical Geology, 2021, 586, 120584.	3.3	6
63	Basin architecture controls on the chemical evolution and 4He distribution of groundwater in the Paradox Basin. Earth and Planetary Science Letters, 2022, 589, 117580.	4.4	6
64	Helium-carbon systematics of groundwaters in the Lassen Peak Region. Chemical Geology, 2021, 584, 120535.	3.3	3
65	Enriched carbon source detected. Nature Geoscience, 2017, 10, 625-627.	12.9	2
66	Helium concentrations and isotope compositions in 10Âkm deep groundwaters. Chemical Geology, 2020, 533, 119442.	3.3	2
67	Evidence from gas-rich ultramafic xenoliths for Superplume-derived recycled volatiles in the East African sub-continental mantle. Chemical Geology, 2022, 589, 120682.	3.3	2
68	Noble Gases. Encyclopedia of Earth Sciences Series, 2017, , 1-6.	0.1	1
69	Noble Gases. Encyclopedia of Earth Sciences Series, 2018, , 1003-1008.	0.1	0