Bernard Marty

List of Publications by Year
in descending order

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202 papers	17,832 citations	11651 70 h-index	14208 128 g-index
205 all docs	205 docs citations	205 times ranked	9255 citing authors

#	Article	IF	Citations
1	Comet 81P/Wild 2 Under a Microscope. Science, 2006, 314, 1711-1716.	12.6	848
2	The origins and concentrations of water, carbon, nitrogen and noble gases on Earth. Earth and Planetary Science Letters, 2012, 313-314, 56-66.	4.4	745
3	Origin of carbon in fumarolic gas from island arcs. Chemical Geology, 1995, 119, 265-274.	3.3	526
4	C3He in volatile fluxes from the solid Earth: implications for carbon geodynamics. Earth and Planetary Science Letters, 1987, 83, 16-26.	4.4	501
5	67P/Churyumov-Gerasimenko, a Jupiter family comet with a high D/H ratio. Science, 2015, 347, 1261952.	12.6	403
6	Prebiotic chemicalsâ€"amino acid and phosphorusâ€"in the coma of comet 67P/Churyumov-Gerasimenko. Science Advances, 2016, 2, e1600285.	10.3	393
7	Noble Gases and Volatile Recycling at Subduction Zones. Reviews in Mineralogy and Geochemistry, 2002, 47, 319-370.	4.8	389
8	Magnesium isotopic composition of the Earth and chondrites. Geochimica Et Cosmochimica Acta, 2010, 74, 4150-4166.	3.9	381
9	CO2 fluxes from mid-ocean ridges, arcs and plumes. Chemical Geology, 1998, 145, 233-248.	3.3	376
10	Isotopic Compositions of Cometary Matter Returned by Stardust. Science, 2006, 314, 1724-1728.	12.6	343
11	Volatiles (He, C, N, Ar) in mid-ocean ridge basalts: assesment of shallow-level fractionation and characterization of source composition. Geochimica Et Cosmochimica Acta, 1999, 63, 3619-3633.	3.9	316
12	Abundant molecular oxygen in the coma of comet 67P/Churyumovâ€"Gerasimenko. Nature, 2015, 526, 678-681.	27.8	260
13	A ¹⁵ N-Poor Isotopic Composition for the Solar System As Shown by Genesis Solar Wind Samples. Science, 2011, 332, 1533-1536.	12.6	255
14	Clues from Fe Isotope Variations on the Origin of Early Archean BIFs from Greenland. Science, 2004, 306, 2077-2080.	12.6	254
15	Isotopic and trace element signatures of Ethiopian flood basalts: evidence for plumeâ€"lithosphere interactions. Geochimica Et Cosmochimica Acta, 1999, 63, 2263-2279.	3.9	249
16	Tracing Fluid Origin, Transport and Interaction in the Crust. Reviews in Mineralogy and Geochemistry, 2002, 47, 539-614.	4.8	244
17	Time variability and heterogeneity in the coma of 67P/Churyumov-Gerasimenko. Science, 2015, 347, aaa0276.	12.6	222
18	Helium isotopes and CO2 in volcanic gases of Japan. Chemical Geology, 1989, 76, 25-40.	3.3	217

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19	Stability of the Upper Nile drainage network (Ethiopia) deduced from (Uâ€“Th)/He thermochronometry: implications for uplift and erosion of the Afar plume dome. Earth and Planetary Science Letters, 2003, 215, 73-88.	4.4	208
20	The nitrogen record of crustâ€“mantle interaction and mantle convection from Archean to Present. Earth and Planetary Science Letters, 2003, 206, 397-410.	4.4	201
21	Molecular nitrogen in comet 67P/Churyumov-Gerasimenko indicates a low formation temperature. Science, 2015, 348, 232-235.	12.6	195
22	How many mantle plumes in Africa? The geochemical point of view. Chemical Geology, 2006, 226, 100-114.	3.3	189
23	Noble gases in submarine glasses from mid-oceanic ridges and Loihi seamount: Constraints on the early history of the Earth. Geochimica Et Cosmochimica Acta, 1992, 56, 1301-1316.	3.9	186
24	Molybdenum Evidence for Inherited Planetary Scale Isotope Heterogeneity of the Protosolar Nebula. Astrophysical Journal, 2002, 565, 640-644.	4.5	186
25	Helium isotopic variations in Ethiopian plume lavas: nature of magmatic sources and limit on lower mantle contribution. Earth and Planetary Science Letters, 1996, 144, 223-237.	4.4	185
26	Iron isotopic systematics of oceanic basalts. Geochimica Et Cosmochimica Acta, 2013, 107, 12-26.	3.9	182
27	Nitrogen content of the mantle inferred from N2â€“Ar correlation in oceanic basalts. Nature, 1995, 377, 326-329.	27.8	172
28	Nitrogen and argon isotopes in oceanic basalts. Earth and Planetary Science Letters, 1997, 152, 101-112.	4.4	170
29	Primitive Boron Isotope Composition of the Mantle. Science, 1995, 269, 383-386.	12.6	164
30	Solar Wind Record on the Moon: Deciphering Presolar from Planetary Nitrogen. Science, 2000, 290, 1142-1145.	12.6	164
31	Earthâ€™s water may have been inherited from material similar to enstatite chondrite meteorites. Science, 2020, 369, 1110-1113.	12.6	164
32	The Paris meteorite, the least altered CM chondrite so far. Geochimica Et Cosmochimica Acta, 2014, 124, 190-222.	3.9	163
33	Xenon isotopes in 67P/Churyumov-Gerasimenko show that comets contributed to Earth's atmosphere. Science, 2017, 356, 1069-1072.	12.6	161
34	The cosmic molybdenumâ€“ruthenium isotope correlation. Earth and Planetary Science Letters, 2004, 226, 465-475.	4.4	159
35	Nitrogen Isotopic Composition and Density of the Archean Atmosphere. Science, 2013, 342, 101-104.	12.6	156
36	Nitrogen solubility in basaltic melt. Part I. Effect of oxygen fugacity. Geochimica Et Cosmochimica Acta, 2003, 67, 4123-4135.	3.9	153

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37	Nitrogen Isotopes and Mantle Geodynamics: The Emergence of Life and the Atmosphere-Crust-Mantle Connection. Elements, 2013, 9, 359-366.	0.5	152
38	The evolution of terrestrial volatiles: a view from helium, neon, argon and nitrogen isotope modelling. Chemical Geology, 1998, 147, 27-52.	3.3	150
39	Source, genesis, and timing of giant ignimbrite deposits associated with Ethiopian continental flood basalts. Geochimica Et Cosmochimica Acta, 2002, 66, 1429-1448.	3.9	148
40	Nitrogen isotope variations in the Solar System. Nature Geoscience, 2015, 8, 515-522.	12.9	147
41	Timing of East African Rift development in southern Ethiopia: Implication for mantle plume activity and evolution of topography. Geology, 2008, 36, 167.	4.4	146
42	Neon isotopes constrain convection and volatile origin in the Earth's mantle. Nature, 2005, 433, 33-38.	27.8	145
43	Origins of volatile elements (H, C, N, noble gases) on Earth and Mars in light of recent results from the ROSETTA cometary mission. Earth and Planetary Science Letters, 2016, 441, 91-102.	4.4	143
44	He, Ar, O, Sr and Nd isotope constraints on the origin and evolution of Mount Etna magmatism. Earth and Planetary Science Letters, 1994, 126, 23-39.	4.4	129
45	Upper-mantle volatile chemistry at Oldoinyo Lengai volcano and the origin of carbonatites. Nature, 2009, 459, 77-80.	27.8	129
46	Neon and xenon isotopes in MORB: implications for the earth-atmosphere evolution. Earth and Planetary Science Letters, 1989, 94, 45-56.	4.4	122
47	A determination of the neon isotopic composition of the deep mantle. Earth and Planetary Science Letters, 2004, 225, 77-88.	4.4	116
48	Cometary Isotopic Measurements. Space Science Reviews, 2015, 197, 47-83.	8.1	112
49	Plume-derived rare gases in 380 Ma carbonatites from the Kola region (Russia) and the argon isotopic composition in the deep mantle. Earth and Planetary Science Letters, 1998, 164, 179-192.	4.4	107
50	Nitrogen solubility in molten metal and silicate at high pressure and temperature. Geochimica Et Cosmochimica Acta, 2013, 121, 15-28.	3.9	107
51	Argon isotopic composition of Archaean atmosphere probes early Earth geodynamics. Nature, 2013, 498, 87-90.	27.8	103
52	Noble gases in crude oils from the Paris Basin, France: Implications for the origin of fluids and constraints on oil-water-gas interactions. Geochimica Et Cosmochimica Acta, 1995, 59, 3389-3404.	3.9	100
53	Tissint Martian Meteorite: A Fresh Look at the Interior, Surface, and Atmosphere of Mars. Science, 2012, 338, 785-788.	12.6	100
54	Sulfur degassing at Erta Ale (Ethiopia) and Masaya (Nicaragua) volcanoes: Implications for degassing processes and oxygen fugacities of basaltic systems. Geochemistry, Geophysics, Geosystems, 2013, 14, 4076-4108.	2.5	100

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55	Asteroidal impacts and the origin of terrestrial and lunar volatiles. Icarus, 2013, 222, 44-52.	2.5	99
56	Molybdenum Nucleosynthetic Dichotomy Revealed in Primitive Meteorites. Astrophysical Journal, 2002, 569, L139-L142.	4.5	98
57	Heavy Nitrogen in Carbonatites of the Kola Peninsula: A Possible Signature of the Deep Mantle. Science, 1999, 286, 2488-2490.	12.6	97
58	Chondritic-like xenon trapped in Archean rocks: A possible signature of the ancient atmosphere. Earth and Planetary Science Letters, 2011, 308, 298-306.	4.4	96
59	Nitrogen isotopes in the recent solar wind from the analysis of Genesis targets: Evidence for large scale isotope heterogeneity in the early solar system. Geochimica Et Cosmochimica Acta, 2010, 74, 340-355.	3.9	94
60	Helium isotope fluxes and groundwater ages in the Dogger Aquifer, Paris Basin. Water Resources Research, 1993, 29, 1025-1035.	4.2	93
61	Carbonaceous cherts of the Barberton Greenstone Belt, South Africa: Isotopic, chemical and structural characteristics of individual microstructures. Geochimica Et Cosmochimica Acta, 2007, 71, 655-669.	3.9	92
62	Trace elements in the gas emissions from the Erta Ale volcano, Afar, Ethiopia. Chemical Geology, 2013, 357, 95-116.	3.3	89
63	Detection of argon in the coma of comet 67P/Churyumov-Gerasimenko. Science Advances, 2015, 1, e1500377.	10.3	87
64	Nitrogen isotopic composition of ammoniated phyllosilicates: case studies from Precambrian metamorphosed sedimentary rocks. Chemical Geology, 2005, 216, 37-58.	3.3	86
65	Xenon in Archean barite: Weak decay of 130Ba, mass-dependent isotopic fractionation and implication for barite formation. Geochimica Et Cosmochimica Acta, 2009, 73, 6834-6846.	3.9	86
66	9. Noble Gases and Volatile Recycling at Subduction Zones. , 2002, , 319-370.		85
67	Evolution of atmospheric xenon and other noble gases inferred from Archean to Paleoproterozoic rocks. Geochimica Et Cosmochimica Acta, 2018, 232, 82-100.	3.9	81
68	Pebbles and sand on asteroid (162173) Ryugu: In situ observation and particles returned to Earth. Science, 2022, 375, 1011-1016.	12.6	78
69	TandEM: Titan and Enceladus mission. Experimental Astronomy, 2009, 23, 893-946.	3.7	77
70	Nitrogen recycling in subduction zones. Geophysical Research Letters, 1998, 25, 2289-2292.	4.0	76
71	Water in the Early Earth. Reviews in Mineralogy and Geochemistry, 2006, 62, 421-450.	4.8	75
72	Chondritic xenon in the Earthâ€™s mantle. Nature, 2016, 533, 82-85.	27.8	75

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73	MarcoPolo-R near earth asteroid sample return mission. Experimental Astronomy, 2012, 33, 645-684.	3.7	72
74	Primordial Origins of Earth's Carbon. Reviews in Mineralogy and Geochemistry, 2013, 75, 149-181.	4.8	69
75	Scientific rationale for Uranus and Neptune in situ explorations. Planetary and Space Science, 2018, 155, 12-40.	1.7	69
76	Constraints on rare gas partition coefficients from analysis of olivine-glass from a picritic mid-ocean ridge basalt. Chemical Geology, 1993, 106, 1-7.	3.3	68
77	Nitrogen isotopic composition of macromolecular organic matter in interplanetary dust particles. Geochimica Et Cosmochimica Acta, 2003, 67, 3773-3783.	3.9	68
78	Helium isotopes in Alpine regions. Tectonophysics, 1992, 206, 71-78.	2.2	66
79	Volatile abundances in the sub-arc mantle: insights from volcanic and hydrothermal gas discharges. Journal of Volcanology and Geothermal Research, 2005, 140, 205-216.	2.1	65
80	Osmium, sulphur, and helium isotopic results from the giant Neoproterozoic epithermal Imiter silver deposit, Morocco: evidence for a mantle source. Chemical Geology, 2004, 207, 59-79.	3.3	64
81	3. Solar System Formation and Early Evolution: the First 100 MillionÂYears. Earth, Moon and Planets, 2006, 98, 39-95.	0.6	64
82	Geochemical evidence for efficient aquifer isolation over geological timeframes. Nature, 2003, 425, 55-58.	27.8	63
83	Gas geochemistry of geothermal fluids, the Hengill area, southwest rift zone of Iceland. Chemical Geology, 1991, 91, 207-225.	3.3	61
84	Evidence for a predominantly non-solar origin of nitrogen in the lunar regolith revealed by single grain analyses. Earth and Planetary Science Letters, 1999, 167, 47-60.	4.4	61
85	Noble gas distribution in oceanic basalt glasses. Geochimica Et Cosmochimica Acta, 1986, 50, 1093-1097.	3.9	60
86	Nitrogen in peridotite xenoliths: Lithophile behavior and magmatic isotope fractionation. Geochimica Et Cosmochimica Acta, 2009, 73, 4843-4861.	3.9	60
87	New evidence for chondritic lunar water from combined D/H and noble gas analyses of single Apollo 17 volcanic glasses. Icarus, 2014, 229, 109-120.	2.5	59
88	New measurement of the Boltzmann constantkby acoustic thermometry of helium-4 gas. Metrologia, 2017, 54, 856-873.	1.2	59
89	The40Ar/36Ar ratio of the undepleted mantle; A reevaluation. Geophysical Research Letters, 1995, 22, 1937-1940.	4.0	58
90	He, Ar, Sr, Nd and Pb isotopes in volcanic rocks from Afar: Evidence for a primitive mantle component and constraints on magmatic sources.. Geochemical Journal, 1993, 27, 219-228.	1.0	56

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91	Comparative Studies of Solar, Q-Gases and Terrestrial Noble Gases, and Implications on the Evolution of the Solar Nebula. Geochimica Et Cosmochimica Acta, 1998, 62, 301-314.	3.9	56
92	Cosmogenic 3He production rates revisited from evidences of grain size dependent release of matrix-sited helium. Earth and Planetary Science Letters, 2006, 247, 222-234.	4.4	56
93	Helium and Neon Abundances and Compositions in Cometary Matter. Science, 2008, 319, 75-78.	12.6	56
94	Potassium isotope systematics of oceanic basalts. Geochimica Et Cosmochimica Acta, 2019, 259, 144-154.	3.9	54
95	Inference on the nature and the mass of Earth's late veneer from noble metals and gases. Journal of Geophysical Research, 2002, 107, 12-1-12-7.	3.3	52
96	Protosolar Carbon Isotopic Composition: Implications for the Origin of Meteoritic Organics. Astrophysical Journal, 2004, 600, 480-484.	4.5	52
97	Petrology, geochemistry, and cosmic-ray exposure age of lherzolitic shergottite Northwest Africa 1950. Meteoritics and Planetary Science, 2005, 40, 1175-1184.	1.6	52
98	Krypton isotopes and noble gas abundances in the coma of comet 67P/Churyumov-Gerasimenko. Science Advances, 2018, 4, eaar6297.	10.3	52
99	The origin and degassing history of the Earth's atmosphere revealed by Archean xenon. Nature Communications, 2017, 8, 15455.	12.8	51
100	Hydrothermal 15N15N abundances constrain the origins of mantle nitrogen. Nature, 2020, 580, 367-371.	27.8	50
101	Continuous monitoring of distal gas emanations at Vulcano, southern Italy. Bulletin of Volcanology, 1992, 54, 147-155.	3.0	49
102	High3He/4He ratios in peridotite xenoliths from SW Japan revisited: Evidence for cosmogenic3He released by vacuum crushing. Geochemistry, Geophysics, Geosystems, 2005, 6, n/a-n/a.	2.5	49
103	Scientific rationale for Saturn×^{3}s in situ exploration. Planetary and Space Science, 2014, 104, 29-47.	1.7	49
104	Nitrogen isotope fractionation during terrestrial core-mantle separation. Geochemical Perspectives Letters, 2016, , 138-147.	5.0	49
105	Volatile fluxes from volcanoes. Terra Nova, 1991, 3, 17-27.	2.1	47
106	The evolution of Venus: Present state of knowledge and future exploration. Planetary and Space Science, 2012, 63-64, 15-23.	1.7	47
107	Salinity of the Archaean oceans from analysis of fluid inclusions in quartz. Comptes Rendus - Geoscience, 2018, 350, 154-163.	1.2	47
108	Two noble gas components in a Mid-Atlantic Ridge basalt. Nature, 1983, 302, 238-240.	27.8	45

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109	Geochemical constraints on mantle dynamics in the Hadean. Earth and Planetary Science Letters, 2005, 238, 17-30.	4.4	45
110	Mantle upwellings and convective instabilities revealed by seismic tomography and helium isotope geochemistry beneath eastern Africa. Geophysical Research Letters, 2007, 34, .	4.0	44
111	The iodineâ€“plutoniumâ€“xenon age of the Moonâ€“Earth system revisited. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2014, 372, 20130260.	3.4	44
112	Halogens as tracers of protosolar nebula material in comet 67P/Churyumovâ€“Gerasimenko. Monthly Notices of the Royal Astronomical Society, 2017, 472, 1336-1345.	4.4	44
113	Nitrogen, helium and argon in basalt: a static mass spectrometry study. Chemical Geology, 1995, 120, 183-195.	3.3	43
114	Oxygen isotopes in single micrometer-sized quartz grains: tracing the source of Saharan dust over long-distance atmospheric transport. Geochimica Et Cosmochimica Acta, 2002, 66, 3351-3365.	3.9	43
115	Analyses of nitrogen and argon in single lunar grains: towards a quantification of the asteroidal contribution to planetary surfaces. Earth and Planetary Science Letters, 2002, 202, 201-216.	4.4	43
116	Synthesis of refractory organic matter in the ionized gas phase of the solar nebula. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 7129-7134.	7.1	43
117	A PROTOSOLAR NEBULA ORIGIN FOR THE ICES AGGLOMERATED BY COMET 67P/CHURYUMOVâ€“GERASIMENKO. Astrophysical Journal Letters, 2016, 819, L33.	8.3	43
118	Signatures of early differentiation of Mars. Earth and Planetary Science Letters, 2002, 196, 251-263.	4.4	42
119	Inference on terrestrial genesis from molybdenum isotope systematics. Geophysical Research Letters, 2002, 29, 8-1-8-3.	4.0	39
120	The presence of clathrates in comet 67P/Churyumov-Gerasimenko. Science Advances, 2016, 2, e1501781.	10.3	38
121	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
122	Helium Isotopic Evidence for a Lower Mantle Component in Depleted Archean Komatiite. Science, 1996, 273, 93-95.	12.6	37
123	Perspectives on Atmospheric Evolution from Noble Gas and Nitrogen Isotopes on Earth, Mars & Venus. Space Science Reviews, 2020, 216, 1.	8.1	37
124	Title is missing!. Space Science Reviews, 2003, 106, 175-196.	8.1	35
125	Coupled noble gasâ€“hydrocarbon evolution of the early Earth atmosphere upon solar UV irradiation. Earth and Planetary Science Letters, 2014, 385, 40-48.	4.4	35
126	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

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127	Helium isotopic signature of modern and fossil fluids associated with the Corinth rift fault zone (Greece): Implication for fault connectivity in the lower crust. Chemical Geology, 2009, 266, 67-75.	3.3	34
128	Adsorption of xenon ions onto defects in organic surfaces: Implications for the origin and the nature of organics in primitive meteorites. Geochimica Et Cosmochimica Acta, 2011, 75, 6255-6266.	3.9	34
129	Loss and Fractionation of Noble Gas Isotopes and Moderately Volatile Elements from Planetary Embryos and Early Venus, Earth and Mars. Space Science Reviews, 2020, 216, 1.	8.1	34
130	A very early origin of isotopically distinct nitrogen in inner Solar System protoplanets. Nature Astronomy, 2021, 5, 356-364.	10.1	34
131	Constraints on the flux of meteoritic and cometary water on the Moon from volatile element (Nâ€“Ar) analyses of single lunar soil grains, Luna 24 core. Icarus, 2012, 218, 220-229.	2.5	33
132	4. Building of a Habitable Planet. Earth, Moon and Planets, 2006, 98, 97-151.	0.6	30
133	Is the Faint Young Sun Problem for Earth Solved?. Space Science Reviews, 2020, 216, 1.	8.1	30
134	CO2-Laser Extraction-Static Mass Spectrometry Analysis of Ultra-Low Concentrations of Nitrogen in Silicates. Geostandards and Geoanalytical Research, 2000, 24, 255-260.	3.1	29
135	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
136	A 4,565-My-old andesite from an extinct chondritic protoplanet. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	29
137	Noble gas signature of the Late Heavy Bombardment in the Earth's atmosphere. EEarth, 2007, 2, 43-49.	0.8	29
138	Volatiles (nitrogen, noble gases) in recently discovered SNC meteorites, extinct radioactivities and evolution. Earth and Planetary Science Letters, 2003, 214, 27-42.	4.4	28
139	Xenon isotope constraints on the thermal evolution of the early Earth. Chemical Geology, 2009, 266, 4-9.	3.3	28
140	The NC-CC Isotope Dichotomy: Implications for the Chemical and Isotopic Evolution of the Early Solar System. Space Science Reviews, 2020, 216, 1.	8.1	27
141	Nitrogen isotopic fractionation during abiotic synthesis of organic solid particles. Earth and Planetary Science Letters, 2014, 393, 2-13.	4.4	26
142	Mercury (Hg) in meteorites: Variations in abundance, thermal release profile, mass-dependent and mass-independent isotopic fractionation. Geochimica Et Cosmochimica Acta, 2016, 182, 55-72.	3.9	26
143	Nitrogen and noble gases in micrometeorites. Meteoritics and Planetary Science, 2005, 40, 881-894.	1.6	25
144	Interlayer trapping of noble gases in insoluble organic matter of primitive meteorites. Earth and Planetary Science Letters, 2005, 236, 569-578.	4.4	25

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145	Constraints from Comets on the Formation and Volatile Acquisition of the Planets and Satellites. Space Science Reviews, 2015, 197, 297-342.	8.1	25
146	The origin and fate of volatile elements on Earth revisited in light of noble gas data obtained from comet 67P/Churyumov-Gerasimenko. Scientific Reports, 2020, 10, 5796.	3.3	24
147	Novel insights into the degassing history of Earth's mantle from high precision noble gas analysis of magmatic gas. Earth and Planetary Science Letters, 2019, 525, 115766.	4.4	23
148	Mechanisms of magma degassing at mid-oceanic ridges and the local volatile composition (4Heâ€“40ArâŽâ€“CO2) of the mantle by laser ablation analysis of individual MORB vesicles. Earth and Planetary Science Letters, 2013, 361, 183-194.	4.4	21
149	Archean kerogen as a new tracer of atmospheric evolution: Implications for dating the widespread nature of early life. Science Advances, 2018, 4, eaar2091.	10.3	20
150	Geochemical evidence for high volatile fluxes from the mantle at the end of the Archaean. Nature, 2019, 575, 485-488.	27.8	20
151	Experimental determination of the xenon isotopic fractionation during adsorption. Geophysical Research Letters, 2013, 40, 4165-4170.	4.0	19
152	Impact of Radiogenic Heating on the Formation Conditions of Comet 67P/Churyumovâ€“Gerasimenko. Astrophysical Journal Letters, 2017, 839, L4.	8.3	19
153	Stepwise heating of lunar anorthosites 60025, 60215, 65315 possibly reveals an indigenous noble gas component on the Moon. Geochimica Et Cosmochimica Acta, 2017, 218, 114-131.	3.9	19
154	Effects of atmospheric entry heating on the noble gas and nitrogen content of micrometeorites. Earth and Planetary Science Letters, 2013, 377-378, 1-12.	4.4	18
155	iMARS Phase 2. Astrobiology, 2018, 18, S-1-S-131.	3.0	18
156	Chronology and shock history of the Bencubbin meteorite: A nitrogen, noble gas, and Arâ€“Ar investigation of silicates, metal and fluid inclusions. Geochimica Et Cosmochimica Acta, 2010, 74, 6636-6653.	3.9	17
157	â€œNitrogen isotopic compositions of the present mantle and the Archean biosphereâ€• Reply to comment by Pierre Cartigny and Magali Ader. Earth and Planetary Science Letters, 2003, 216, 433-439.	4.4	16
158	Preliminary Planning for Mars Sample Return (MSR) Curation Activities in a Sample Receiving Facility (SRF). Astrobiology, 2022, 22, S-57-S-80.	3.0	16
159	Primordial heavy noble gases in the pristine Paris carbonaceous chondrite. Meteoritics and Planetary Science, 2019, 54, 395-414.	1.6	15
160	Noble gas variations in ureilites and their implications for ureilite parent body formation. Geochimica Et Cosmochimica Acta, 2020, 270, 325-337.	3.9	15
161	Final Report of the Mars Sample Return Science Planning Group 2 (MSPG2). Astrobiology, 2022, 22, S-5-S-26.	3.0	15
162	Rationale and Proposed Design for a Mars Sample Return (MSR) Science Program. Astrobiology, 2022, 22, S-27-S-56.	3.0	14

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163	Helium trapped in historical slags: a search for temporal variation of the He isotopic composition of air. Earth and Planetary Science Letters, 2001, 194, 165-175.	4.4	13
164	Fast chemical and isotopic exchange of nitrogen during reaction with hot molybdenum. Geochemistry, Geophysics, Geosystems, 2006, 7, n/a-n/a.	2.5	13
165	Evolution of volatile species in the earthâ€™s mantle: A view from xenology. Geochimica Et Cosmochimica Acta, 2014, 136, 229-246.	3.9	13
166	Processes of noble gas elemental and isotopic fractionations in plasma-produced organic solids: Cosmochemical implications. Geochimica Et Cosmochimica Acta, 2017, 217, 219-230.	3.9	13
167	Tracing the Origins of the Ice Giants Through Noble Gas Isotopic Composition. Space Science Reviews, 2020, 216, 1.	8.1	13
168	Noble gases in the Martian meteorite Northwest Africa 2737: A new chassignite signature. Meteoritics and Planetary Science, 2006, 41, 739-748.	1.6	12
169	Evidence for an early nitrogen isotopic evolution in the solar nebula from volatile analyses of a CAI from the CV3 chondrite NWA 8616. Geochimica Et Cosmochimica Acta, 2015, 153, 183-201.	3.9	12
170	High-temperature Ionization-induced Synthesis of Biologically Relevant Molecules in the Protosolar Nebula. Astrophysical Journal, 2018, 859, 142.	4.5	12
171	Noble gases and nitrogen in Tissint reveal the composition of the Mars atmosphere. Geochemical Perspectives Letters, 0, , 11-16.	5.0	12
172	A new all-metal induction furnace for noble gas extraction. Chemical Geology, 2018, 480, 86-92.	3.3	11
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