

# Ray Burgess

## List of Publications by Year in descending order

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88  
papers

3,841  
citations

81900

39  
h-index

133252

59  
g-index

89  
all docs

89  
docs citations

89  
times ranked

3070  
citing authors

#	ARTICLE	IF	CITATIONS
1	Fluid inclusion noble gas and halogen evidence on the origin of Cu-Porphyry mineralising fluids. <i>Geochimica Et Cosmochimica Acta</i> , 2001, 65, 2651-2668.	3.9	201
2	Nitrogen Isotopic Composition and Density of the Archean Atmosphere. <i>Science</i> , 2013, 342, 101-104.	12.6	156
3	Noble gas and halogen geochemistry of mantle fluids: comparison of African and Canadian diamonds. <i>Geochimica Et Cosmochimica Acta</i> , 2000, 64, 717-732.	3.9	128
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	Helium-3/strontium isotope constraints on mantle evolution beneath the Roman Comagmatic Province, Italy. <i>Earth and Planetary Science Letters</i> , 2004, 224, 295-308.	4.4	104
6	Argon isotopic composition of Archean atmosphere probes early Earth geodynamics. <i>Nature</i> , 2013, 498, 87-90.	27.8	103
7	Chondritic-like xenon trapped in Archean rocks: A possible signature of the ancient atmosphere. <i>Earth and Planetary Science Letters</i> , 2011, 308, 298-306.	4.4	96
8	Late Neoproterozoic overprinting of the cassiterite and columbite-tantalite bearing pegmatites of the Gatumba area, Rwanda (Central Africa). <i>Journal of African Earth Sciences</i> , 2011, 61, 10-26.	2.0	90
9	Diamondiferous kimberlites in central India synchronous with Deccan flood basalts. <i>Earth and Planetary Science Letters</i> , 2010, 290, 142-149.	4.4	88
10	Halogen and Ar-40/Ar-39 age determinations of inclusions within quartz veins from porphyry copper deposits using complementary noble gas extraction techniques. <i>Chemical Geology</i> , 2001, 177, 351-370.	3.3	84
11	Constraints on the age and halogen composition of mantle fluids in Siberian coated diamonds. <i>Earth and Planetary Science Letters</i> , 2002, 197, 193-203.	4.4	84
12	The helium flux from the continents and ubiquity of low-3He/4He recycled crust and lithosphere. <i>Geochimica Et Cosmochimica Acta</i> , 2015, 153, 116-133.	3.9	83
13	Evolution of atmospheric xenon and other noble gases inferred from Archean to Paleoproterozoic rocks. <i>Geochimica Et Cosmochimica Acta</i> , 2018, 232, 82-100.	3.9	81
14	Northwest Africa 032: Product of lunar volcanism. <i>Meteoritics and Planetary Science</i> , 2002, 37, 371-394.	1.6	74
15	Extinct 129I in Halite from a Primitive Meteorite: Evidence for Evaporite Formation in the Early Solar System. <i>Science</i> , 2000, 288, 1819-1821.	12.6	73
16	40Ar/39Ar analysis of perthite microtextures and fluid inclusions in alkali feldspars from the Klokken syenite, South Greenland. <i>Earth and Planetary Science Letters</i> , 1992, 109, 147-167.	4.4	71
17	Hydrothermal Fluid Origins in a Fluorite-Rich Mississippi Valley-Type District: Combined Noble Gas (He, Ar, Kr) Analysis of Fluid Inclusions from the Illinois-Kentucky Fluorspar District, Viburnum Trend, and Tri-State Districts, Midcontinent United States. <i>Economic Geology</i> , 2002, 97, 435-451.	3.8	69
18	Hydrothermal Fluid Origins in Mississippi Valley-Type Ore Districts: Combined Noble Gas (He, Ar, Kr) and Halogen (Cl, Br, I) Analysis of Fluid Inclusions from the Illinois-Kentucky Fluorspar District, Viburnum Trend, and Tri-State Districts, Midcontinent United States. <i>Economic Geology</i> , 2002, 97, 453-469.	3.8	68

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19	<sup>40</sup> Ar- <sup>39</sup> Ar chronology of lunar meteorites Northwest Africa 032 and 773. <i>Meteoritics and Planetary Science</i> , 2003, 38, 555-564.	1.6	66
20	New age constraints for the geodynamic evolution of the Sistan Suture Zone, eastern Iran. <i>Lithos</i> , 2013, 170-171, 17-34.	1.4	66
21	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
22	Determination of sulphur-bearing components in C1 and C2 carbonaceous chondrites by stepped combustion. <i>Meteoritics</i> , 1991, 26, 55-64.	1.4	63
23	Experimental partitioning of F and Cl between olivine, orthopyroxene and silicate melt at Earth's mantle conditions. <i>Chemical Geology</i> , 2015, 416, 65-78.	3.3	62
24	Geochemistry, petrology and ages of the lunar meteorites Kalahari 008 and 009: New constraints on early lunar evolution. <i>Geochimica Et Cosmochimica Acta</i> , 2008, 72, 4845-4873.	3.9	59
25	Petrogenesis and chronology of lunar meteorite Northwest Africa 4472: A KREEPy regolith breccia from the Moon. <i>Geochimica Et Cosmochimica Acta</i> , 2011, 75, 2420-2452.	3.9	58
26	Halogens in chondritic meteorites and terrestrial accretion. <i>Nature</i> , 2017, 551, 614-618.	27.8	58
27	Volatile-rich mantle fluids inferred from inclusions in diamond and mantle xenoliths. <i>Nature</i> , 1990, 344, 653-655.	27.8	56
28	End-Permian extinction amplified by plume-induced release of recycled lithospheric volatiles. <i>Nature Geoscience</i> , 2018, 11, 682-687.	12.9	55
29	Noble gas and halogen evidence for the origin of Scandinavian sandstone-hosted Pb-Zn deposits. <i>Geochimica Et Cosmochimica Acta</i> , 2005, 69, 109-129.	3.9	54
30	The origin and degassing history of the Earth's atmosphere revealed by Archean xenon. <i>Nature Communications</i> , 2017, 8, 15455.	12.8	51
31	<sup>40</sup> Ar- <sup>39</sup> Ar laser probe studies of clinopyroxene inclusions in eclogitic diamonds. <i>Geochimica Et Cosmochimica Acta</i> , 1992, 56, 389-402.	3.9	50
32	Volcano-ice interactions at Prestahnjúkur, Iceland: rhyolite eruption during the last interglacial-glacial transition. <i>Annals of Glaciology</i> , 2007, 45, 38-47.	1.4	50
33	Structure and geological history of the Carboneras Fault Zone, SE Spain: Part of a stretching transform fault system. <i>Journal of Structural Geology</i> , 2012, 45, 68-86.	2.3	49
34	Sedimentary halogens and noble gases within Western Antarctic xenoliths: Implications of extensive volatile recycling to the sub continental lithospheric mantle. <i>Geochimica Et Cosmochimica Acta</i> , 2016, 176, 139-156.	3.9	46
35	In search of a hidden long-term isolated sub-chondritic <sup>142</sup> Nd/ <sup>144</sup> Nd reservoir in the deep mantle: Implications for the Nd isotope systematics of the Earth. <i>Geochimica Et Cosmochimica Acta</i> , 2010, 74, 738-750.	3.9	45
36	Genesis of the vein-type tungsten mineralization at Nyakabingo (Rwanda) in the Karagwe-Ankole belt, Central Africa. <i>Mineralium Deposita</i> , 2016, 51, 283-307.	4.1	45

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37	The development of volcanic hosted massive sulfide and barite "gold orebodies on Wetar Island, Indonesia. <i>Mineralium Deposita</i> , 2005, 40, 76-99.	4.1	44
38	He, Ar and C isotopes in coated and polycrystalline diamonds. <i>Chemical Geology</i> , 1998, 146, 205-217.	3.3	43
39	$^{40}\text{Ar}/^{39}\text{Ar}$ laser probe dating of individual clinopyroxene inclusions in Premier eclogitic diamonds. <i>Earth and Planetary Science Letters</i> , 1989, 94, 22-28.	4.4	39
40	Volatile composition of microinclusions in diamonds from the Panda kimberlite, Canada: Implications for chemical and isotopic heterogeneity in the mantle. <i>Geochimica Et Cosmochimica Acta</i> , 2009, 73, 1779-1794.	3.9	39
41	Geochemistry and geochronology of the ~620 Ma gold-associated Batouri granitoids, Cameroon. <i>International Geology Review</i> , 2015, 57, 1485-1509.	2.1	38
42	Distribution of sulphides and oxidised sulphur components in SNC meteorites. <i>Earth and Planetary Science Letters</i> , 1989, 93, 314-320.	4.4	36
43	$^{40}\text{Ar}/^{39}\text{Ar}$ age determinations of lunar basalt meteorites Asuka 881757, Yamato 793169, Miller Range 05035, La Paz Icefield 02205, Northwest Africa 479, and basaltic breccia Elephant Moraine 96008. <i>Meteoritics and Planetary Science</i> , 2009, 44, 805-821.	1.6	36
44	$^{40}\text{Ar}/^{39}\text{Ar}$ ages of mafic dykes from the Mesoproterozoic Chhattisgarh basin, Bastar craton, Central India: Implication for the origin and spatial extent of the Deccan Large Igneous Province. <i>Lithos</i> , 2011, 125, 994-1005.	1.4	34
45	Laser argon- $^{40}\text{Ar}/^{39}\text{Ar}$ age determinations of Luna 24 mare basalts. <i>Meteoritics and Planetary Science</i> , 1998, 33, 921-935.	1.6	33
46	$^{40}\text{Ar}/^{39}\text{Ar}$ age of the Cabo de Gata volcanic series and displacements on the Carboneras fault zone, SE Spain. <i>Journal of the Geological Society</i> , 2000, 157, 1003-1008.	2.1	33
47	Early Cretaceous exhumation of high-pressure metamorphic rocks of the Sistan Suture Zone, eastern Iran. <i>Geological Journal</i> , 2009, 44, 104-116.	1.3	33
48	Petrology, geochemistry, and age of low-Ti mare-basalt meteorite Northeast Africa 003-A: A possible member of the Apollo 15 mare basaltic suite. <i>Geochimica Et Cosmochimica Acta</i> , 2009, 73, 3450-3470.	3.9	33
49	Laser argon- $^{40}\text{Ar}/^{39}\text{Ar}$ age studies of Dar al Gani 262 lunar meteorite. <i>Meteoritics and Planetary Science</i> , 2000, 35, 1355-1364.	1.6	32
50	Determination of halogen abundances in terrestrial and extraterrestrial samples by the analysis of noble gases produced by neutron irradiation. <i>Chemical Geology</i> , 2016, 437, 77-87.	3.3	32
51	Laser microprobe stable isotope measurements on geological materials: Some experimental considerations (with special reference to $^{34}\text{S}$ in sulphides). <i>Chemical Geology: Isotope Geoscience Section</i> , 1992, 101, 53-61.	0.6	30
52	Silicic volcanism at LjÃ³sufjÃ¶ll, Iceland: Insights into evolution and eruptive history from Ar "Ar dating. <i>Journal of Volcanology and Geothermal Research</i> , 2008, 169, 154-175.	2.1	30
53	Constraints on the timing of late-Eburnean metamorphism, gold mineralisation and regional exhumation at Damang mine, Ghana. <i>Precambrian Research</i> , 2014, 243, 18-38.	2.7	29
54	Geological setting and timing of the world-class Sn, Nb "Ta and Li mineralization of Manono-Kitotolo (Katanga, Democratic Republic of Congo). <i>Ore Geology Reviews</i> , 2016, 72, 373-390.	2.7	29

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55	Rhyolites at Kerlingarfjall, Iceland: the evolution and lifespan of silicic central volcanoes. <i>Bulletin of Volcanology</i> , 2010, 72, 523-538.	3.0	28
56	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
57	Martian fluid and Martian weathering signatures identified in Nakhla, NWA 998 and MIL 03346 by halogen and noble gas analysis. <i>Geochimica Et Cosmochimica Acta</i> , 2013, 105, 255-293.	3.9	27
58	<sup>40</sup> Ar/ <sup>39</sup> Ar age determinations of eclogitic clinopyroxene and garnet inclusions in diamonds from the Venetia and Orapa kimberlites. <i>Lithos</i> , 2004, 77, 113-124.	1.4	25
59	<sup>18</sup> O/ <sup>16</sup> O and <sup>40</sup> Ar/ <sup>39</sup> Ar isotope measurements of inclusions in alluvial diamonds from the Ural Mountains: Constraints on diamond genesis and eruption ages. <i>Lithos</i> , 2009, 112, 714-723.	1.4	25
60	Volcanism in Mare Fecunditatis and Mare Crisium: Ar-Ar age studies. <i>Geochimica Et Cosmochimica Acta</i> , 2005, 69, 4919-4934.	3.9	23
61	Noble gases fingerprint a metasedimentary fluid source in the Macraes orogenic gold deposit, New Zealand. <i>Mineralium Deposita</i> , 2017, 52, 197-209.	4.1	21
62	From Submarine to Subaerial Outcrop Sequence Thrusting and Gravity-Driven Extensional Faulting: Gran Sasso Massif, Central Apennines, Italy. <i>Tectonics</i> , 2019, 38, 4155-4184.	2.8	21
63	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
64	Argon and halogen geochemistry of hydrothermal fluids in the Loch Ainort granite, Isle of Skye, Scotland. <i>Contributions To Mineralogy and Petrology</i> , 1994, 115, 345-355.	3.1	19
65	Fluid mixing and thermal regimes beneath the PACMANUS hydrothermal field, Papua New Guinea: Helium and oxygen isotope data. <i>Earth and Planetary Science Letters</i> , 2011, 304, 93-102.	4.4	16
66	Noble gas signals in corals predict submarine volcanic eruptions. <i>Chemical Geology</i> , 2018, 480, 28-34.	3.3	16
67	Geological setting and timing of the cassiterite vein type mineralization of the Kalima area (Maniema), Tj ETQq1 1 0,784314 r <sub>BT</sub> /Ov	2.0	15
68	Effect of water on the fluorine and chlorine partitioning behavior between olivine and silicate melt. <i>Contributions To Mineralogy and Petrology</i> , 2017, 172, 15.	3.1	15
69	Halogen behaviour in subduction zones: Eclogite facies rocks from the Western and Central Alps. <i>Geochimica Et Cosmochimica Acta</i> , 2018, 243, 1-23.	3.9	15
70	The origin and history of ordinary chondrites: A study by iron isotope measurements of metal grains from ordinary chondrites. <i>Geochimica Et Cosmochimica Acta</i> , 2008, 72, 4440-4456.	3.9	13
71	Petrology, <sup>40</sup> Ar/ <sup>39</sup> Ar age, Sr-Nd isotope systematics, and geodynamic significance of an ultrapotassic (lamproitic) dyke with affinities to kamafugite from the easternmost margin of the Bastar Craton, India. <i>Mineralogy and Petrology</i> , 2016, 110, 269-293.	1.1	13
72	Geology, geochemistry and <sup>40</sup> Ar/ <sup>39</sup> Ar ages of the Cerro Millo epithermal high-sulfidation gold prospect, southern Peru. <i>Ore Geology Reviews</i> , 2008, 34, 304-316.	2.7	10

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73	Short lived $^{36}\text{Cl}$ and its decay products $^{36}\text{Ar}$ and $^{36}\text{S}$ in the early solar system. <i>Geochimica Et Cosmochimica Acta</i> , 2013, 123, 358-367.	3.9	10
74	Disequilibrium degassing model determination of the $^3\text{He}$ concentration and $^3\text{He}/^{22}\text{Ne}$ of the MORB and OIB mantle sources. <i>Earth and Planetary Science Letters</i> , 2015, 410, 128-139.	4.4	9
75	LATE CRETACEOUS BONANZA-STYLE METAL ENRICHMENT IN THE SERRA PELADA Au-Pd-Pt DEPOSIT, PARA, BRAZIL. <i>Economic Geology</i> , 2011, 106, 119-125.	3.8	8
76	A record of Antarctic surface temperature between 25 and 50 m.y. ago. <i>Geology</i> , 2011, 39, 423-426.	4.4	8
77	Constraints on the movement history of the Carboneras Fault Zone (SE Spain) from stratigraphy and $^{40}\text{Ar}/^{39}\text{Ar}$ dating of Neogene volcanic rocks. <i>Geological Society Special Publication</i> , 2014, 394, 79-99.	1.3	8
78	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
79	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
80	$^{40}\text{Ar}/^{39}\text{Ar}$ laser microprobe study of fluids in different colour zones of a hydrothermal scheelite crystal from the Dae Hwa W-Mo mine, South Korea. <i>Chemical Geology</i> , 1992, 102, 259-267.	3.3	6
81	Terrestrial and Martian weathering signatures of xenon components in shergottite mineral separates. <i>Meteoritics and Planetary Science</i> , 2010, 45, 1359-1379.	1.6	6
82	Complex circular subsidence structures in tephra deposited on large blocks of ice: Varðará tuff cone, Iceland. <i>Bulletin of Volcanology</i> , 2016, 78, 56.	3.0	6
83	Halogen variations through the quenched margin of a MORB lava: Evidence for direct assimilation of seawater during eruption. <i>Geochemistry, Geophysics, Geosystems</i> , 2017, 18, 2413-2428.	2.5	5
84	Halogens in Eclogite Facies Minerals from the Western Gneiss Region, Norway. <i>Minerals (Basel)</i> , 2020, 10, 503.	2.0	5
85	Reply to comment on "Chondritic-like xenon trapped in Archean rocks: A possible signature of the ancient atmosphere" by Pujol, M., Marty, B., Burgess, R., <i>Earth and Planetary Science Letters</i> 308 (2011) 298-306 by Pepin, R.O.. <i>Earth and Planetary Science Letters</i> , 2013, 371-372, 296-298.	4.4	3
86	The other isotopes: research avenues based on $^{36}\text{Ar}$ , $^{37}\text{Ar}$ and $^{38}\text{Ar}$ . <i>Geological Society Special Publication</i> , 2014, 378, 175-188.	1.3	2
87	Magmatic volatiles and platinum-group element mineralization in the Stillwater layered intrusion, U.S.A.. <i>American Mineralogist</i> , 2022, 107, 797-814.	1.9	1
88	Bimodal Alteration of the Oceanic Crust Revealed by Halogen and Noble Gas Systematics in the Oman Ophiolite. <i>Journal of Geophysical Research: Solid Earth</i> , 2022, 127, e2021JB022669.	3.4	1