

Richard J Walker

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/7347339/publications.pdf>

Version: 2024-02-01

226
papers

21,091
citations

7568
77
h-index

10734
138
g-index

229
all docs

229
docs citations

229
times ranked

6006
citing authors

#	ARTICLE	IF	CITATIONS
1	Re-Os Ages of Group IIA, IIIA, IVA, and IVB Iron Meteorites. <i>Science</i> , 1996, 271, 1099-1102.	12.6	1,180
2	THE Re-Os ISOTOPE SYSTEM IN COSMOCHEMISTRY AND HIGH-TEMPERATURE GEOCHEMISTRY. <i>Annual Review of Earth and Planetary Sciences</i> , 1998, 26, 423-500.	11.0	872
3	Carius Tube Digestion for Low-Blank Rhenium-Osmium Analysis. <i>Analytical Chemistry</i> , 1995, 67, 2136-2141.	6.5	833
4	Os, Sr, Nd, and Pb isotope systematics of southern African peridotite xenoliths: Implications for the chemical evolution of subcontinental mantle. <i>Geochimica Et Cosmochimica Acta</i> , 1989, 53, 1583-1595.	3.9	672
5	Osmium isotopic compositions of mantle xenoliths: a global perspective. <i>Geochimica Et Cosmochimica Acta</i> , 2001, 65, 1311-1323.	3.9	594
6	Highly siderophile element composition of the Earth's primitive upper mantle: Constraints from new data on peridotite massifs and xenoliths. <i>Geochimica Et Cosmochimica Acta</i> , 2006, 70, 4528-4550.	3.9	506
7	Destruction of the North China Craton in the Mesozoic. <i>Annual Review of Earth and Planetary Sciences</i> , 2019, 47, 173-195.	11.0	428
8	Recycling deep cratonic lithosphere and generation of intraplate magmatism in the North China Craton. <i>Earth and Planetary Science Letters</i> , 2008, 270, 41-53.	4.4	412
9	The osmium isotopic composition of the Earth's primitive upper mantle. <i>Nature</i> , 1996, 383, 517-520.	27.8	348
10	Call for an improved set of decay constants for geochronological use. <i>Geochimica Et Cosmochimica Acta</i> , 2001, 65, 111-121.	3.9	335
11	The chemical-temporal evolution of lithospheric mantle underlying the North China Craton. <i>Geochimica Et Cosmochimica Acta</i> , 2006, 70, 5013-5034.	3.9	291
12	Osmium isotopic constraints on the age of lithospheric mantle beneath northeastern China. <i>Chemical Geology</i> , 2003, 196, 107-129.	3.3	278
13	^{190}Pt - ^{186}Os and ^{187}Re - ^{187}Os systematics of abyssal peridotites. <i>Earth and Planetary Science Letters</i> , 2000, 177, 319-335.	4.4	269
14	Comparative ^{187}Re - ^{187}Os systematics of chondrites. <i>Geochimica Et Cosmochimica Acta</i> , 2002, 66, 4187-4201.	3.9	255
15	Highly siderophile elements in the Earth, Moon and Mars: Update and implications for planetary accretion and differentiation. <i>Chemie Der Erde</i> , 2009, 69, 101-125.	2.0	255
16	Highly siderophile elements in chondrites. <i>Chemical Geology</i> , 2003, 196, 27-42.	3.3	254
17	The absence of lithium isotope fractionation during basalt differentiation: new measurements by multicollector sector ICP-MS. <i>Geochimica Et Cosmochimica Acta</i> , 1999, 63, 907-910.	3.9	251
18	Coupled ^{186}Os and ^{187}Os Evidence for Core-Mantle Interaction. <i>Science</i> , 1998, 280, 1570-1573.	12.6	247

#	ARTICLE	IF	CITATIONS
19	Temporal Evolution of the Lithospheric Mantle beneath the Eastern North China Craton. <i>Journal of Petrology</i> , 2009, 50, 1857-1898.	2.8	237
20	Protracted core formation and rapid accretion of protoplanets. <i>Science</i> , 2014, 344, 1150-1154.	12.6	224
21	The osmium isotopic composition of convecting upper mantle deduced from ophiolite chromites. <i>Geochimica Et Cosmochimica Acta</i> , 2002, 66, 329-345.	3.9	222
22	^{182}W Evidence for Long-Term Preservation of Early Mantle Differentiation Products. <i>Science</i> , 2012, 335, 1065-1069.	12.6	211
23	Diffusion-driven extreme lithium isotopic fractionation in country rocks of the Tin Mountain pegmatite. <i>Earth and Planetary Science Letters</i> , 2006, 243, 701-710.	4.4	208
24	Re-Os isotopic evidence for an enriched-mantle source for the Noril'sk-type, ore-bearing intrusions, Siberia. <i>Geochimica Et Cosmochimica Acta</i> , 1994, 58, 4179-4197.	3.9	203
25	^{186}Os - ^{187}Os systematics of Hawaiian picrites. <i>Earth and Planetary Science Letters</i> , 1999, 174, 25-42.	4.4	200
26	Stochastic Late Accretion to Earth, the Moon, and Mars. <i>Science</i> , 2010, 330, 1527-1530.	12.6	194
27	Radar-Enabled Recovery of the Sutterâ€™s Mill Meteorite, a Carbonaceous Chondrite Regolith Breccia. <i>Science</i> , 2012, 338, 1583-1587.	12.6	191
28	Osmium-187 Enrichment in Some Plumes: Evidence for Core-Mantle Interaction?. <i>Science</i> , 1995, 269, 819-822.	12.6	190
29	Applications of the ^{190}Pt - ^{186}Os isotope system to geochemistry and cosmochemistry. <i>Geochimica Et Cosmochimica Acta</i> , 1997, 61, 4799-4807.	3.9	176
30	Tungsten-182 heterogeneity in modern ocean island basalts. <i>Science</i> , 2017, 356, 66-69.	12.6	171
31	The debate over coreâ€mantle interaction. <i>Earth and Planetary Science Letters</i> , 2005, 232, 211-225.	4.4	169
32	Interpreting ages from Reâ€Os isotopes in peridotites. <i>Lithos</i> , 2009, 112, 1083-1095.	1.4	169
33	Rhenium-Osmium Isotope Systematics of Carbonaceous Chondrites. <i>Science</i> , 1989, 243, 519-522.	12.6	164
34	Comparative ReOs, SmNd and RbSr isotope and trace element systematics for Archean komatiite flows from Munro Township, Abitibi Belt, Ontario. <i>Earth and Planetary Science Letters</i> , 1988, 87, 1-12.	4.4	148
35	^{182}W and ^{187}Re - ^{187}Os Systematics of Iron Meteorites: Chronology for Melting, Differentiation, and Crystallization in Asteroids. <i>Geochimica Et Cosmochimica Acta</i> , 1998, 62, 545-554.	3.9	144
36	Re-Os isotope systematics of Ni-Cu sulfide ores, Sudbury Igneous Complex, Ontario: evidence for a major crustal component. <i>Earth and Planetary Science Letters</i> , 1991, 105, 416-429.	4.4	137

#	ARTICLE	IF	CITATIONS
37	Modeling fractional crystallization of group IVB iron meteorites. <i>Geochimica Et Cosmochimica Acta</i> , 2008, 72, 2198-2216.	3.9	136
38	Origin of the Permian-Triassic komatiites, northwestern Vietnam. <i>Contributions To Mineralogy and Petrology</i> , 2004, 147, 453-469.	3.1	131
39	Preservation of Earth-forming events in the tungsten isotopic composition of modern flood basalts. <i>Science</i> , 2016, 352, 809-812.	12.6	130
40	U-Pb Monazite Geochronology of Granitic Rocks from Maine: Implications for Late Paleozoic Tectonics in the Northern Appalachians. <i>Journal of Geology</i> , 1996, 104, 185-195.	1.4	128
41	Tungsten isotopic evidence for disproportional late accretion to the Earth and Moon. <i>Nature</i> , 2015, 520, 530-533.	27.8	127
42	Lithium isotopic systematics of granites and pegmatites from the Black Hills, South Dakota. <i>American Mineralogist</i> , 2006, 91, 1488-1498.	1.9	125
43	^{186}Os - ^{187}Os systematics of Gorgona Island komatiites: implications for early growth of the inner core. <i>Earth and Planetary Science Letters</i> , 2003, 206, 411-426.	4.4	123
44	Late accretion as a natural consequence of planetary growth. <i>Nature Geoscience</i> , 2012, 5, 614-617.	12.9	122
45	Siderophile elements in Earth's upper mantle and lunar breccias: Data synthesis suggests manifestations of the same late influx. <i>Meteoritics and Planetary Science</i> , 2001, 36, 1257-1275.	1.6	121
46	Re-Os isotopic evidence for early differentiation of the Martian mantle. <i>Geochimica Et Cosmochimica Acta</i> , 2000, 64, 4083-4095.	3.9	120
47	Isotopic determinations of rhenium and osmium in meteorites by using fusion, distillation and ion-exchange separations. <i>Analytica Chimica Acta</i> , 1989, 222, 291-300.	5.4	118
48	Mapping lithospheric boundaries using Os isotopes of mantle xenoliths: An example from the North China Craton. <i>Geochimica Et Cosmochimica Acta</i> , 2011, 75, 3881-3902.	3.9	118
49	Diachronous decratonzation of the Sino-Korean craton: Geochemistry of mantle xenoliths from North Korea. <i>Geology</i> , 2010, 38, 799-802.	4.4	117
50	Evolution of the martian mantle inferred from the ^{187}Re - ^{187}Os isotope and highly siderophile element abundance systematics of shergottite meteorites. <i>Geochimica Et Cosmochimica Acta</i> , 2012, 76, 206-235.	3.9	117
51	Highly Siderophile Elements in Earth, Mars, the Moon, and Asteroids. <i>Reviews in Mineralogy and Geochemistry</i> , 2016, 81, 161-238.	4.8	115
52	Insights into early Earth from Barberton komatiites: Evidence from lithophile isotope and trace element systematics. <i>Geochimica Et Cosmochimica Acta</i> , 2013, 108, 63-90.	3.9	110
53	Geochemistry and Origin of the Intrusive Hosts of the Noril'sk-Talnakh Cu-Ni-PGE Sulfide Deposits. <i>Economic Geology</i> , 2003, 98, 495-515.	3.8	109
54	Re-Os and Sm-Nd Isotope Geochemistry of the Stillwater Complex, Montana: Implications for the Petrogenesis of the J-M Reef. <i>Journal of Petrology</i> , 1994, 35, 1717-1753.	2.8	107

#	ARTICLE		IF	CITATIONS
55	186Os–187Os and highly siderophile element abundance systematics of the mantle revealed by abyssal peridotites and Os-rich alloys. <i>Geochimica Et Cosmochimica Acta</i> , 2017, 200, 232-254.	3.9	104	
56	Re-Os systematics of early proterozoic ferropicrites, Pechenga Complex, northwestern Russia: Evidence for ancient 187Os-enriched plumes. <i>Geochimica Et Cosmochimica Acta</i> , 1997, 61, 3145-3160.	3.9	102	
57	Osmium isotope and highly siderophile element systematics of lunar impact melt breccias: Implications for the late accretion history of the Moon and Earth. <i>Geochimica Et Cosmochimica Acta</i> , 2008, 72, 3022-3042.	3.9	102	
58	Re ? Os isotopic constraints on the origin of volcanic rocks, Gorgona Island, Colombia: Os isotopic evidence for ancient heterogeneities in the mantle. <i>Contributions To Mineralogy and Petrology</i> , 1991, 107, 150-162.	3.1	98	
59	Rhenium concentration and isotope systematics in group IIAB iron meteorites. <i>Geochimica Et Cosmochimica Acta</i> , 1995, 59, 2331-2344.	3.9	98	
60	Samples returned from the asteroid Ryugu are similar to Ivuna-type carbonaceous meteorites. <i>Science</i> , 2023, 379, .	12.6	97	
61	Platinum–osmium isotope evolution of the Earth’s mantle: Constraints from chondrites and Os-rich alloys. <i>Geochimica Et Cosmochimica Acta</i> , 2006, 70, 2093-2103.	3.9	95	
62	Osmium isotope and highly siderophile element systematics of the lunar crust. <i>Earth and Planetary Science Letters</i> , 2010, 289, 595-605.	4.4	95	
63	High closure temperatures of the U-Pb system in large apatites from the Tin Mountain pegmatite, Black Hills, South Dakota, USA. <i>Geochimica Et Cosmochimica Acta</i> , 1994, 58, 3845-3853.	3.9	94	
64	Osmium and neodymium isotopic constraints on the temporal and spatial evolution of Siberian flood basalt sources. <i>Geochimica Et Cosmochimica Acta</i> , 1995, 59, 5159-5168.	3.9	94	
65	Highly siderophile element depletion in the Moon. <i>Earth and Planetary Science Letters</i> , 2015, 423, 114-124.	4.4	94	
66	Low-blank chemical separation of rhenium and osmium from gram quantities of silicate rock for measurement by resonance ionization mass spectrometry. <i>Analytical Chemistry</i> , 1988, 60, 1231-1234.	6.5	93	
67	Implications of 187Os isotopic heterogeneities in a mantle plume: evidence from Gorgona Island and Curaçao. <i>Geochimica Et Cosmochimica Acta</i> , 1999, 63, 713-728.	3.9	93	
68	Origin of felsic achondrites Graves Nunataks 06128 and 06129, and ultramafic brachinites and brachinite-like achondrites by partial melting of volatile-rich primitive parent bodies. <i>Geochimica Et Cosmochimica Acta</i> , 2012, 81, 94-128.	3.9	91	
69	The coupled ^{182}W – ^{142}Nd record of early terrestrial mantle differentiation. <i>Geochemistry, Geophysics, Geosystems</i> , 2016, 17, 2168-2193.	2.5	87	
70	Anomalous ^{182}W in high $^3\text{He}/^4\text{He}$ ocean island basalts: Fingerprints of Earth’s core?. <i>Geochimica Et Cosmochimica Acta</i> , 2020, 271, 194-211.	3.9	87	
71	Pt-Re-Os systematics of group IIAB and IIIAB iron meteorites 1 Associate editor: G. Herzog. <i>Geochimica Et Cosmochimica Acta</i> , 2004, 68, 1413-1431.	3.9	86	
72	Isotopic measurement of subnanogram quantities of rhenium and osmium by resonance ionization mass spectrometry. <i>Analytical Chemistry</i> , 1986, 58, 2923-2927.	6.5	85	

#	ARTICLE	IF	CITATIONS
73	Early Earth differentiation investigated through ^{142}Nd , ^{182}W , and highly siderophile element abundances in samples from Isua, Greenland. <i>Geochimica Et Cosmochimica Acta</i> , 2016, 175, 319-336.	3.9	84
74	PLANETARY-SCALE STRONTIUM ISOTOPIC HETEROGENEITY AND THE AGE OF VOLATILE DEPLETION OF EARLY SOLAR SYSTEM MATERIALS. <i>Astrophysical Journal</i> , 2012, 758, 45.	4.5	83
75	Re^{187}Os isotopic systematics of primitive lavas from the Lassen region of the Cascade arc, California. <i>Earth and Planetary Science Letters</i> , 2000, 177, 301-317.	4.4	81
76	Early formation of evolved asteroidal crust. <i>Nature</i> , 2009, 457, 179-182.	27.8	81
77	Low abundances of highly siderophile elements in the lunar mantle: evidence for prolonged late accretion. <i>Earth and Planetary Science Letters</i> , 2004, 224, 399-413.	4.4	79
78	Determination of mass-dependent molybdenum isotopic variations by MC-ICP-MS: An evaluation of matrix effects. <i>Chemical Geology</i> , 2006, 225, 121-136.	3.3	79
79	$\text{Pt}^{195}\text{Re}^{187}\text{Os}$ and Sm^{147}Nd isotope and HSE and REE systematics of the 2.7Ga Belingwe and Abitibi komatiites. <i>Geochimica Et Cosmochimica Acta</i> , 2009, 73, 6367-6389.	3.9	79
80	Tungsten Isotopes in Planets. <i>Annual Review of Earth and Planetary Sciences</i> , 2017, 45, 389-417.	11.0	78
81	Chemical heterogeneity in the upper mantle recorded by peridotites and chromitites from the Shetland Ophiolite Complex, Scotland. <i>Earth and Planetary Science Letters</i> , 2012, 333-334, 226-237.	4.4	77
82	Insights into early Earth from the $\text{Pt}^{195}\text{Re}^{187}\text{Os}$ isotope and highly siderophile element abundance systematics of Barberton komatiites. <i>Geochimica Et Cosmochimica Acta</i> , 2014, 125, 394-413.	3.9	77
83	Highly siderophile element and ^{187}Os isotope systematics of Hawaiian picrites: Implications for parental melt composition and source heterogeneity. <i>Chemical Geology</i> , 2009, 260, 112-128.	3.3	76
84	Group IVA irons: New constraints on the crystallization and cooling history of an asteroidal core with a complex history. <i>Geochimica Et Cosmochimica Acta</i> , 2011, 75, 6821-6843.	3.9	76
85	Processes controlling highly siderophile element fractionations in xenolithic peridotites and their influence on Os isotopes. <i>Earth and Planetary Science Letters</i> , 2010, 297, 287-297.	4.4	75
86	Evidence for the early differentiation of the core from $\text{Pt}^{195}\text{Re}^{187}\text{Os}$ isotope systematics of 2.8-Ga komatiites. <i>Earth and Planetary Science Letters</i> , 2005, 237, 118-134.	4.4	74
87	Lithophile and siderophile element systematics of Earthâ€™s mantle at the Archeanâ€“Proterozoic boundary: Evidence from 2.4 Ga komatiites. <i>Geochimica Et Cosmochimica Acta</i> , 2016, 180, 227-255.	3.9	73
88	Re^{187}Os isotope and highly siderophile element systematics of the Paranâ¡ continental flood basalts (Brazil). <i>Earth and Planetary Science Letters</i> , 2012, 337-338, 164-173.	4.4	72
89	Refertilization of Jurassic oceanic peridotites from the Tethys Ocean – Implications for the Re^{187}Os systematics of the upper mantle. <i>Earth and Planetary Science Letters</i> , 2008, 268, 171-181.	4.4	71
90	The Os isotopic composition of Proterozoic upper mantle: evidence for chondritic upper mantle from the Outokumpu ophiolite, Finland. <i>Earth and Planetary Science Letters</i> , 1996, 141, 161-173.	4.4	70

#	ARTICLE	IF	CITATIONS
91	187Os–186Os systematics of Os–Ir–Ru alloy grains from southwestern Oregon. <i>Earth and Planetary Science Letters</i> , 2005, 230, 211-226.	4.4	70
92	Osmium isotope evidence for uniform distribution of s- and r-process components in the early solar system. <i>Earth and Planetary Science Letters</i> , 2007, 259, 567-580.	4.4	70
93	New insights into Mo and Ru isotope variation in the nebula and terrestrial planet accretionary genetics. <i>Earth and Planetary Science Letters</i> , 2018, 487, 221-229.	4.4	70
94	High precision tungsten isotope measurement by thermal ionization mass spectrometry. <i>International Journal of Mass Spectrometry</i> , 2012, 309, 109-117.	1.5	68
95	The Os and Nd isotopic systematics of c. 2.44 Ga Akanvaara and Koitelainen mafic layered intrusions in northern Finland. <i>Precambrian Research</i> , 2001, 109, 73-102.	2.7	67
96	Effects of melt percolation on highly siderophile elements and Os isotopes in subcontinental lithospheric mantle: A study of the upper mantle profile beneath Central Europe. <i>Geochimica Et Cosmochimica Acta</i> , 2009, 73, 2400-2414.	3.9	67
97	New insights into the Hadean mantle revealed by 182W and highly siderophile element abundances of supracrustal rocks from the Nuvvuagittuq Greenstone Belt, Quebec, Canada. <i>Chemical Geology</i> , 2014, 383, 63-75.	3.3	67
98	Heterogeneous delivery of silicate and metal to the Earth by large planetesimals. <i>Nature Geoscience</i> , 2018, 11, 77-81.	12.9	67
99	Characterizing cosmochemical materials with genetic affinities to the Earth: Genetic and chronological diversity within the IAB iron meteorite complex. <i>Earth and Planetary Science Letters</i> , 2017, 467, 157-166.	4.4	66
100	Rhenium-Osmium Isotope Constraints on the Age of Iron Meteorites. <i>Science</i> , 1992, 255, 1118-1121.	12.6	65
101	Rhenium-Osmium and Samarium-Neodymium Isotopic Systematics of the Stillwater Complex. <i>Science</i> , 1989, 244, 1169-1174.	12.6	64
102	Formation of pyroxenite layers in the Totalp ultramafic massif (Swiss Alps) – Insights from highly siderophile elements and Os isotopes. <i>Geochimica Et Cosmochimica Acta</i> , 2010, 74, 661-683.	3.9	63
103	Re-Os, Rb-Sr, and O isotopic systematics of the Archean Kolar schist belt, Karnataka, India. <i>Geochimica Et Cosmochimica Acta</i> , 1989, 53, 3005-3013.	3.9	61
104	In search of late-stage planetary building blocks. <i>Chemical Geology</i> , 2015, 411, 125-142.	3.3	61
105	Platinum-group element abundances and Re–Os isotopic systematics of the upper continental crust through time: Evidence from glacial diamictites. <i>Geochimica Et Cosmochimica Acta</i> , 2016, 191, 1-16.	3.9	61
106	Os–Pb–Nd isotope and highly siderophile and lithophile trace element systematics of komatiitic rocks from the Volotsk suite, SE Baltic Shield. <i>Precambrian Research</i> , 2007, 158, 119-137.	2.7	60
107	Re–Os isotopic systematics of the 1.95 Ga Jormua Ophiolite Complex, northeastern Finland. <i>Chemical Geology</i> , 2000, 164, 123-141.	3.3	59
108	Re–Os isotope systematics and HSE abundances of the 3.5 Ga Schapenburg komatiites, South Africa: Hydrous melting or prolonged survival of primordial heterogeneities in the mantle?. <i>Chemical Geology</i> , 2009, 262, 355-369.	3.3	55

#	ARTICLE	IF	CITATIONS
109	Rhenium–osmium isotope and highly-siderophile-element abundance systematics of angrite meteorites. <i>Earth and Planetary Science Letters</i> , 2012, 353–354, 208–218.	4.4	55
110	Use of Hydrofluoric Acid Desilicification in the Determination of Highly Siderophile Element Abundances and Re–Pt–Os Isotope Systematics in Mafic–Ultramafic Rocks. <i>Geostandards and Geoanalytical Research</i> , 2016, 40, 49–65.	3.1	54
111	Nd, O and Sr isotopic constraints on the origin of Precambrian rocks, Southern Black Hills, South Dakota. <i>Geochimica Et Cosmochimica Acta</i> , 1986, 50, 2833–2846.	3.9	51
112	^{190}Pt - ^{186}Os and ^{187}Re - ^{187}Os systematics of the Sudbury Igneous Complex, Ontario. <i>Geochimica Et Cosmochimica Acta</i> , 2002, 66, 273–290.	3.9	51
113	In search of extant Tc in the early solar system: ^{98}Ru and ^{99}Ru abundances in iron meteorites and chondrites. <i>Chemical Geology</i> , 2003, 196, 43–56.	3.3	51
114	Molybdenum isotope, multiple sulfur isotope, and redox-sensitive element behavior in early Pleistocene Mediterranean sapropels. <i>Chemical Geology</i> , 2010, 279, 134–144.	3.3	51
115	Highly siderophile element systematics of the 3.3 Ga Weltevreden komatiites, South Africa: Implications for early Earth history. <i>Earth and Planetary Science Letters</i> , 2011, 311, 253–263.	4.4	51
116	Extreme persistence of cratonic lithosphere in the southwest Pacific: Paleoproterozoic Os isotopic signatures in Zealandia. <i>Geology</i> , 2013, 41, 231–234.	4.4	51
117	Widespread tungsten isotope anomalies and W mobility in crustal and mantle rocks of the Eoarchean Saglek Block, northern Labrador, Canada: Implications for early Earth processes and W recycling. <i>Earth and Planetary Science Letters</i> , 2016, 448, 13–23.	4.4	51
118	Evidence for homogeneous distribution of osmium in the protosolar nebula. <i>Earth and Planetary Science Letters</i> , 2012, 351–352, 36–44.	4.4	50
119	Temporal evolution of primordial tungsten-182 and $^{3}\text{He}/^{4}\text{He}$ signatures in the Iceland mantle plume. <i>Chemical Geology</i> , 2019, 525, 245–259.	3.3	50
120	Re–Os evidence for the age and origin of peridotites from the Dabie–Sulu ultrahigh pressure metamorphic belt, China. <i>Chemical Geology</i> , 2007, 236, 323–338.	3.3	49
121	Efficient mixing of the solar nebula from uniform Mo isotopic composition of meteorites. <i>Nature</i> , 2003, 425, 152–155.	27.8	48
122	Chemical and chronologic complexity in the convecting upper mantle: Evidence from the Taitao ophiolite, southern Chile. <i>Geochimica Et Cosmochimica Acta</i> , 2009, 73, 5793–5819.	3.9	48
123	Re–Os age constraints and new observations of Proterozoic glacial deposits in the Vazante Group, Brazil. <i>Precambrian Research</i> , 2013, 238, 199–213.	2.7	48
124	^{182}W and HSE constraints from $2.7\text{--}2.8\text{ Ga}$ komatiites on the heterogeneous nature of the Archean mantle. <i>Geochimica Et Cosmochimica Acta</i> , 2018, 228, 1–26.	3.9	48
125	Fractionation of the platinum-group elements and Re during crystallization of basalt in Kilauea Iki Lava Lake, Hawaii. <i>Chemical Geology</i> , 2009, 260, 196–210.	3.3	47
126	Century-long record of Mo isotopic composition in sediments of a seasonally anoxic estuary (Chesapeake Bay). <i>Earth and Planetary Science Letters</i> , 2010, 289, 189–197.	4.4	46

#	ARTICLE	IF	CITATIONS
127	Osmium isotope anomalies in chondrites: Results for acid residues and related leachates. <i>Earth and Planetary Science Letters</i> , 2010, 291, 48-59.	4.4	45
128	High-precision analysis of $^{182}\text{W}/^{184}\text{W}$ and $^{183}\text{W}/^{184}\text{W}$ by negative thermal ionization mass spectrometry: Per-integration oxide corrections using measured $^{18}\text{O}/^{16}\text{O}$. <i>International Journal of Mass Spectrometry</i> , 2017, 414, 80-86.	1.5	45
129	Os solubility in silicate melts: New efforts and results. <i>American Mineralogist</i> , 2000, 85, 912-917.	1.9	43
130	Re-Os isotope systematics of mantle xenoliths from South Korea: Evidence for complex growth and loss of lithospheric mantle beneath East Asia. <i>Chemical Geology</i> , 2006, 231, 90-101.	3.3	42
131	Rhenium-Os isotopes and platinum-group elements in the Rum Layered Suite, Scotland: Implications for Cr-spinel seam formation and the composition of the Iceland mantle anomaly. <i>Earth and Planetary Science Letters</i> , 2009, 286, 41-51.	4.4	41
132	The origin of the unique achondrite Northwest Africa 6704: Constraints from petrology, chemistry and Re-Os, O and Ti isotope systematics. <i>Geochimica Et Cosmochimica Acta</i> , 2019, 245, 597-627.	3.9	41
133	Nature of the crust in Maine, USA: evidence from the Sebago batholith. <i>Contributions To Mineralogy and Petrology</i> , 1996, 125, 45-59.	3.1	40
134	$^{186}\text{Os}/^{187}\text{Os}$ systematics of Hawaiian picrites revisited: New insights into Os isotopic variations in ocean island basalts. <i>Geochimica Et Cosmochimica Acta</i> , 2011, 75, 4456-4475.	3.9	40
135	Tungsten-182 in the upper continental crust: Evidence from glacial diamictites. <i>Chemical Geology</i> , 2018, 494, 144-152.	3.3	40
136	Tracking Hadean processes in modern basalts with $^{142}\text{Neodymium}$. <i>Earth and Planetary Science Letters</i> , 2018, 484, 184-191.	4.4	39
137	Siderophile Elements in Tracing Planetary Formation and Evolution. <i>Geochemical Perspectives</i> , 2016, 5, 1-145.	4.5	39
138	Rhenium-osmium systematics of calcium-aluminium-rich inclusions in carbonaceous chondrites. <i>Geochimica Et Cosmochimica Acta</i> , 2001, 65, 3379-3390.	3.9	38
139	Highly siderophile element geochemistry of peridotites and pyroxenites from Horn-Bory, Bohemian Massif: Implications for HSE behaviour in subduction-related upper mantle. <i>Geochimica Et Cosmochimica Acta</i> , 2013, 100, 158-175.	3.9	38
140	^{187}Os isotopic constraints on Archean mantle dynamics. <i>Geochimica Et Cosmochimica Acta</i> , 2002, 66, 3317-3325.	3.9	37
141	Reaction rind formation in the Catalina Schist: Deciphering a history of mechanical mixing and metasomatic alteration. <i>Chemical Geology</i> , 2014, 384, 47-61.	3.3	37
142	Lead isotopic evidence for mixed sources of Proterozoic granites and pegmatites, Black Hills, South Dakota, USA. <i>Geochimica Et Cosmochimica Acta</i> , 1993, 57, 4677-4685.	3.9	36
143	Re-Os isotopic constraints on magma mixing in the Peridotite Zone of the Stillwater Complex, Montana, USA. <i>Contributions To Mineralogy and Petrology</i> , 2001, 141, 446-457.	3.1	36
144	Rhenium-osmium isotope systematics in meteorites I: Magmatic iron meteorite groups IIAB and IIIAB. <i>Earth and Planetary Science Letters</i> , 1992, 108, 191-202.	4.4	35

#	ARTICLE	IF	CITATIONS
145	Generations of Melt Extraction, Melt–Rock Interaction and High-Temperature Metasomatism Preserved in Peridotites of the ~497 Ma Leka Ophiolite Complex, Norway. <i>Journal of Petrology</i> , 2015, 56, 1797-1828.	2.8	35
146	Early inner solar system origin for anomalous sulfur isotopes in differentiated protoplanets. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 17749-17754.	7.1	34
147	Lithium isotopes in the system Qz-Ms-fluid: An experimental study. <i>Geochimica Et Cosmochimica Acta</i> , 2005, 69, 3337-3347.	3.9	33
148	Low osmium solubility in silicate at high pressures and temperatures. <i>Earth and Planetary Science Letters</i> , 2009, 279, 165-173.	4.4	33
149	Re-Os systematics of the ca. 2.7-Ga komatiites from Alexo, Ontario, Canada. <i>Chemical Geology</i> , 2003, 196, 147-162.	3.3	32
150	Highly siderophile elements and Sr-Nd isotopes in refertilized mantle peridotites – A case study from the Totalp ultramafic body, Swiss Alps. <i>Chemical Geology</i> , 2010, 276, 257-268.	3.3	32
151	Diverse impactors in Apollo 15 and 16 impact melt rocks: Evidence from osmium isotopes and highly siderophile elements. <i>Geochimica Et Cosmochimica Acta</i> , 2015, 155, 122-153.	3.9	32
152	Ultra-depleted 2.05-Ga komatiites of Finnish Lapland: Products of grainy late accretion or core-mantle interaction?. <i>Chemical Geology</i> , 2020, 554, 119801.	3.3	31
153	Os isotope constraints on the origin of the 2.7 Ga Boston Creek Flow, Ontario, Canada. <i>Chemical Geology</i> , 2001, 175, 567-579.	3.3	30
154	Assessment of nebular versus parent body processes on presolar components present in chondrites: Evidence from osmium isotopes. <i>Earth and Planetary Science Letters</i> , 2011, 305, 115-123.	4.4	30
155	Osmium isotope constraints on the proportion of bolide component in Chicxulub impact melt rocks. <i>Meteoritics and Planetary Science</i> , 2004, 39, 1003-1008.	1.6	29
156	Effects of magma ocean crystallization and overturn on the development of 142Nd and 182W isotopic heterogeneities in the primordial mantle. <i>Earth and Planetary Science Letters</i> , 2014, 408, 319-330.	4.4	29
157	Characterization of the dominant impactor signature for Apollo 17 impact melt rocks. <i>Geochimica Et Cosmochimica Acta</i> , 2014, 131, 62-80.	3.9	29
158	Highly siderophile elements and 187Re-187Os isotopic systematics of the Allende meteorite: Evidence for primary nebular processes and late-stage alteration. <i>Geochimica Et Cosmochimica Acta</i> , 2014, 131, 402-414.	3.9	29
159	Isotopic responses to basaltic injections into silicic magma chambers: a whole-rock and microsampling study of macrorhythmic units in the Pleasant Bay layered gabbro-diorite complex, Maine, USA. <i>Contributions To Mineralogy and Petrology</i> , 2001, 142, 323-335.	3.1	28
160	Trace element constraints on pegmatite genesis: Tin Mountain pegmatite, Black Hills, South Dakota. <i>Contributions To Mineralogy and Petrology</i> , 1989, 101, 290-300.	3.1	27
161	Siderophile element systematics of IAB complex iron meteorites: New insights into the formation of an enigmatic group. <i>Geochimica Et Cosmochimica Acta</i> , 2016, 188, 261-283.	3.9	27
162	Genetics, crystallization sequence, and age of the South Byron Trio iron meteorites: New insights to carbonaceous chondrite (CC) type parent bodies. <i>Geochimica Et Cosmochimica Acta</i> , 2019, 251, 217-228.	3.9	27

#	ARTICLE	IF	CITATIONS
163	Simplified mantle architecture and distribution of radiogenic power. <i>Geochemistry, Geophysics, Geosystems</i> , 2013, 14, 2265-2285.	2.5	26
164	Highly siderophile element evidence for early solar system processes in components from ordinary chondrites. <i>Geochimica Et Cosmochimica Acta</i> , 2009, 73, 6984-6997.	3.9	25
165	Big insights from tiny peridotites: Evidence for persistence of Precambrian lithosphere beneath the eastern North China Craton. <i>Tectonophysics</i> , 2015, 650, 104-112.	2.2	25
166	Nucleosynthetic Isotope Variations of Siderophile and Chalcophile Elements in the Solar System. <i>Reviews in Mineralogy and Geochemistry</i> , 2016, 81, 107-160.	4.8	25
167	Evidence of heterogeneous crustal sources: the Harney Peak Granite, South Dakota, U.S.A.. <i>Earth and Environmental Science Transactions of the Royal Society of Edinburgh</i> , 1996, 87, 331-337.	0.3	24
168	Sources of osmium to the modern oceans: new evidence from the 190 Pt- 186 Os system Associate editor: E. M. Ripley. <i>Geochimica Et Cosmochimica Acta</i> , 2004, 68, 1243-1252.	3.9	24
169	A compositionally heterogeneous martian mantle due to late accretion. <i>Science Advances</i> , 2020, 6, eaay2338.	10.3	24
170	Significance of Highly Siderophile Elements and Osmium Isotopes in the Lunar and Terrestrial Mantles. , 2000, , 291-322.		24
171	Origin of Paleoproterozoic Komatiites at Jeesiä trova, Kittilä Greenstone Complex, Finnish Lapland. <i>Journal of Petrology</i> , 2006, 47, 773-789.	2.8	23
172	Chemical characteristics of iron meteorite parent bodies. <i>Geochimica Et Cosmochimica Acta</i> , 2022, 318, 112-125.	3.9	23
173	Pb and Os isotopic constraints on the composition and rheology of the lower crust. <i>Geology</i> , 1998, 26, 359.	4.4	22
174	Comparative Srâ€“Ndâ€“Hfâ€“Osâ€“Pb isotope systematics of xenolithic peridotites from Yangyuan, North China Craton: Additional evidence for a Paleoproterozoic age. <i>Chemical Geology</i> , 2012, 332-333, 1-14.	3.3	22
175	Osmium Isotopes Demonstrate Distal Transport of Contaminated Sediments in Chesapeake Bay. <i>Environmental Science & Technology</i> , 2000, 34, 2528-2534.	10.0	21
176	Geochemical, Isotopic, and SHRIMP Age Data for Precambrian Basement Rocks, Permian Volcanic Rocks, and Sedimentary Host Rocks to the Ore-bearing Intrusions, Noril'sk-Talnakh District, Siberian Russia. <i>International Geology Review</i> , 2000, 42, 895-927.	2.1	21
177	Refinement of high precision Ru isotope analysis using negative thermal ionization mass spectrometry. <i>International Journal of Mass Spectrometry</i> , 2016, 403, 15-26.	1.5	21
178	Tungsten-182 evidence for an ancient kimberlite source. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	7.1	21
179	High-precision Ru isotopic measurements by multi-collector ICP-MS. <i>Analyst</i> , The, 2002, 127, 775-780.	3.5	20
180	Confirmation of a meteoritic component in impact-melt rocks of the Chesapeake Bay impact structure, Virginia, USA-Evidence from osmium isotopic and PGE systematics. <i>Meteoritics and Planetary Science</i> , 2006, 41, 819-833.	1.6	20

#	ARTICLE	IF	CITATIONS
181	High-precision molybdenum isotope analysis by negative thermal ionization mass spectrometry. <i>International Journal of Mass Spectrometry</i> , 2016, 407, 51-61.	1.5	20
182	Genetics, age and crystallization history of group IIC iron meteorites. <i>Geochimica Et Cosmochimica Acta</i> , 2020, 288, 36-50.	3.9	20
183	Tungsten Isotope Composition of Archean Crustal Reservoirs and Implications for Terrestrial $\frac{1}{4}^{182}\text{W}$ Evolution. <i>Geochemistry, Geophysics, Geosystems</i> , 2020, 21, e2020GC009155.	2.5	20
184	High-Precision Tungsten Isotopic Analysis by Multicollection Negative Thermal Ionization Mass Spectrometry Based on Simultaneous Measurement of W and $^{18}\text{O}/^{16}\text{O}$ Isotope Ratios for Accurate Fractionation Correction. <i>Analytical Chemistry</i> , 2016, 88, 1542-1546.	6.5	18
185	The ruthenium isotopic composition of the oceanic mantle. <i>Earth and Planetary Science Letters</i> , 2017, 474, 466-473.	4.4	18
186	Experimental partitioning of Tc, Mo, Ru, and Re between solid and liquid during crystallization in Fe-Ni-S. <i>Geochimica Et Cosmochimica Acta</i> , 2004, 68, 643-651.	3.9	17
187	Mantle–crust interactions in a paleosubduction zone: Evidence from highly siderophile element systematics of eclogite and related rocks. <i>Earth and Planetary Science Letters</i> , 2012, 319-320, 295-306.	4.4	17
188	Length-scales of chemical and isotopic heterogeneity in the mantle section of the Shetland Ophiolite Complex, Scotland. <i>Earth and Planetary Science Letters</i> , 2018, 488, 144-154.	4.4	17
189	Geodynamic implications of ophiolitic chromitites in the La Cabaña ultramafic bodies, Central Chile. <i>International Geology Review</i> , 2014, 56, 1466-1483.	2.1	16
190	Chemical Separation of Tungsten and Other Trace Elements for TIMS Isotope Ratio Measurements Using Organic Acids. <i>Geostandards and Geoanalytical Research</i> , 2019, 43, 245-259.	3.1	16
191	The analysis of seawater osmium. <i>Deep-Sea Research Part II: Topical Studies in Oceanography</i> , 1996, 43, 53-55.	1.4	15
192	Tungsten in Hawaiian picrites: A compositional model for the sources of Hawaiian lavas. <i>Geochimica Et Cosmochimica Acta</i> , 2009, 73, 4517-4530.	3.9	15
193	Petrology and geochemistry of Yamato 984028: a cumulate lherzolitic shergottite with affinities to Y 000027, Y 000047, and Y 000097. <i>Polar Science</i> , 2011, 4, 497-514.	1.2	15
194	Siderophile element constraints on the origin of the Moon. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2014, 372, 20130258.	3.4	15
195	Combined Lithophile–siderophile Isotopic Constraints on Hadean Processes Preserved in Ocean Island Basalt Sources. <i>Geochemistry, Geophysics, Geosystems</i> , 2021, 22, e2020GC009479.	2.5	15
196	Quantification of pulsed ion currents produced in resonance ionization mass spectrometry. <i>International Journal of Mass Spectrometry and Ion Processes</i> , 1987, 75, 111-126.	1.8	14
197	Evidence for the emplacement of ca. 3.0 Ga mantle-derived mafic-ultramafic bodies in the Ukrainian Shield. <i>Precambrian Research</i> , 2004, 132, 349-362.	2.7	14
198	Re-Os systematics of komatiites and komatiitic basalts at Dundonald Beach, Ontario, Canada: Evidence for a complex alteration history and implications of a late-Archean chondritic mantle source. <i>Geochimica Et Cosmochimica Acta</i> , 2005, 69, 5087-5098.	3.9	14

#	ARTICLE	IF	CITATIONS
199	New implications for the origin of the IAB main group iron meteorites and the isotopic evolution of the noncarbonaceous (NC) reservoir. <i>Earth and Planetary Science Letters</i> , 2020, 540, 116248.	4.4	14
200	Crystallization histories of the group IIIF iron meteorites and Eagle Station pallasites. <i>Meteoritics and Planetary Science</i> , 2020, 55, 2570-2586.	1.6	13
201	The komatiite testimony to ancient mantle heterogeneity. <i>Chemical Geology</i> , 2022, 594, 120776.	3.3	13
202	Size of the group IVA iron meteorite core: Constraints from the age and composition of Muonionalusta. <i>Earth and Planetary Science Letters</i> , 2011, 308, 410-416.	4.4	12
203	Estimation of trace element concentrations in the lunar magma ocean using mineralâ€¢and metalâ€¢silicate melt partition coefficients. <i>Meteoritics and Planetary Science</i> , 2015, 50, 733-758.	1.6	12
204	Rapid effects of terrestrial alteration on highly siderophile elements in the Sutter's Mill meteorite. <i>Meteoritics and Planetary Science</i> , 2018, 53, 1500-1506.	1.6	12
205	Siderophile element constraints on the thermal history of the H chondrite parent body. <i>Geochimica Et Cosmochimica Acta</i> , 2019, 245, 556-576.	3.9	12
206	Nd and Sr isotopic constraints on the origin of igneous rocks resulting from the opening of the Japan Sea, southwestern Japan. <i>Contributions To Mineralogy and Petrology</i> , 1997, 129, 75-86.	3.1	9
207	The roles of mechanical mixing and fluid transport in the formation of reaction zones in subduction-related mÃ©lange: Evidence from highly siderophile elements. <i>Chemical Geology</i> , 2019, 525, 96-111.	3.3	9
208	Identification of mantle peridotite as a possible lapetan ophiolite sliver in south Shetland, Scottish Caledonides. <i>Journal of the Geological Society</i> , 2017, 174, 88-92.	2.1	8
209	Highly Siderophile Elements in Earth, Mars, the Moon, and Asteroids. , 2016, , 161-238.		7
210	Does the core leak?. <i>Eos</i> , 2005, 86, 237.	0.1	6
211	Measurement of vanadium impurity in oxygen-implanted silicon by isotope dilution and resonance ionization mass spectrometry. <i>Analytical Chemistry</i> , 1990, 62, 240-244.	6.5	5
212	Day et al. reply. <i>Nature</i> , 2009, 459, E2-E2.	27.8	5
213	Meter-Scale Chemical and Isotopic Heterogeneities in the Oceanic Mantle, Leka Ophiolite Complex, Norway. <i>Journal of Petrology</i> , 2021, 62, .	2.8	5
214	Nd, Sr and Pb isotopic and REE geochemical study of some Miocene submarine hydrothermal deposits (Kuroko deposits) in Japan. <i>Contributions To Mineralogy and Petrology</i> , 2005, 149, 388-399.	3.1	4
215	Effects of Mother Lode-Type Gold Mineralization on 187Os/188Os and Platinum Group Element Concentrations in Peridotite: Alleghany District, California. <i>Economic Geology</i> , 2007, 102, 1079-1089.	3.8	4
216	Excess 180W in IIAB iron meteorites: Identification of cosmogenic, radiogenic, and nucleosynthetic components. <i>Earth and Planetary Science Letters</i> , 2018, 503, 29-36.	4.4	4

#	ARTICLE	IF	CITATIONS
217	Highly siderophile element and ^{187}Re - ^{187}Os isotopic systematics of ungrouped achondrite Northwest Africa 7325: Evidence for complex planetary processes. <i>Meteoritics and Planetary Science</i> , 2019, 54, 1042-1050.	1.6	3
218	Characteristics of the lithospheric mantle beneath northeastern Borborema Province, Brazil: ^{187}Os and HSE constraints on peridotite xenoliths. <i>Journal of South American Earth Sciences</i> , 2019, 96, 102371.	1.4	2
219	The extraterrestrial wedding ring. <i>Nature</i> , 2000, 406, 359-360.	27.8	1
220	Rhenium- $^{187}\text{Osmium}$ Dating (Meteorites). <i>Encyclopedia of Earth Sciences Series</i> , 2015, , 703-707.	0.1	1
221	Evidence of heterogeneous crustal sources: the Harney Peak Granite, South Dakota, U.S.A., 1996, , .		0
222	Significance of the Norumbega fault zone in southwestern Maine: Clues from the geochemistry of granitic rocks. , 1999, , .		0
223	Osmium. <i>Encyclopedia of Earth Sciences Series</i> , 2016, , 1-3.	0.1	0
224	Origin and age of metal veins in Canyon Diablo graphite nodules. <i>Meteoritics and Planetary Science</i> , 2020, 55, 771-780.	1.6	0
225	Rhenium- $^{187}\text{Osmium}$ Dating (Meteorites). , 2013, , 1-8.		0
226	Rhenium-Osmium Isotope System. <i>Encyclopedia of Earth Sciences Series</i> , 2016, , 1-5.	0.1	0