Marc D Norman

List of Publications by Year
in descending order

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113 papers	9,137 citations	30070 54 h-index	39675 94 g-index
113 all docs	113 docs citations	113 times ranked	5732 citing authors

#	Article	IF	Citations
1	Reaction between slab-derived melts and peridotite in the mantle wedge: experimental constraints at 3.8 GPa. Chemical Geology, 1999, 160, 335-356.	3.3	1,497
2	Growth of early continental crust by partial melting of eclogite. Nature, 2003, 425, 605-609.	27.8	637
3	Coupled 186Os and 187Os Evidence for Core-Mantle Interaction. Science, 1998, 280, 1570-1573.	12.6	247
4	Melting and metasomatism in the continental lithosphere: laser ablation ICPMS analysis of minerals in spinel lherzolites from eastern Australia. Contributions To Mineralogy and Petrology, 1998, 130, 240-255.	3.1	213
5	Routine quantitative multi-element analysis of sulphide minerals by laser ablation ICP-MS: Standard development and consideration of matrix effects. Geochemistry: Exploration, Environment, Analysis, 2011, 11, 51-60.	0.9	211
6	Primitive magmas and source characteristics of the Hawaiian plume: petrology and geochemistry of shield picrites. Earth and Planetary Science Letters, 1999, 168, 27-44.	4.4	210
7	Geochemical Evidence for Excess Iron in the Mantle Beneath Hawaii. Science, 2004, 306, 91-94.	12.6	206
8	186Osâ€“187Os systematics of Hawaiian picrites. Earth and Planetary Science Letters, 1999, 174, 25-42.	4.4	200
9	Quantitative analysis of trace element abundances in glasses and minerals: a comparison of laser ablation inductively coupled plasma mass spectrometry, solution inductively coupled plasma mass spectrometry, proton microprobe and electron microprobe data. Journal of Analytical Atomic Spectrometry, 1998, 13, 477-482.	3.0	196
10	Continent Formation in the Archean and Chemical Evolution of the Cratonic Lithosphere: Melt-Rock Reaction Experiments at 3-4 GPa and Petrogenesis of Archean Mg-Diorites (Sanukitoids). Journal of Petrology, 2010, 51, 1237-1266.	2.8	186
11	Chronology, geochemistry, and petrology of a ferroan noritic anorthosite clast from Descartes breccia 67215: Clues to the age, origin, structure, and impact history of the lunar crust. Meteoritics and Planetary Science, 2003, 38, 645-661.	1.6	179
12	The Late Heavy Bombardment. Annual Review of Earth and Planetary Sciences, 2017, 45, 619-647.	11.0	173
13	Meta-igneous (non-gneissic) tonalites and quartz-diorites from an extensive ca. 3800 Ma terrain south of the Isua supracrustal belt, southern West Greenland: constraints on early crust formation. Contributions To Mineralogy and Petrology, 1999, 137, 364-388.	3.1	167
14	Age and composition of young basalts on the Moon, measured from samples returned by Changâ€™e-5. Science, 2021, 374, 887-890.	12.6	148
15	Subduction recycling of continental sediments and the origin of geochemically enriched reservoirs in the deep mantle. Earth and Planetary Science Letters, 2008, 271, 14-23.	4.4	126
16	Evidence for subduction at 3.8ÂGa: Geochemistry of arc-like metabasalts from the southern edge of the Isua Supracrustal Belt. Chemical Geology, 2009, 261, 83-98.	3.3	122
17	Tungsten isotope evidence that mantle plumes contain no contribution from the Earth's core. Nature, 2004, 427, 234-237.	27.8	121
18	39Arî—¸40Ar age and petrology of Chico: Large-scale impact melting on the L chondrite parent body. Geochimica Et Cosmochimica Acta, 1995, 59, 1383-1399.	3.9	118

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19	Rhenium and platinum group element abundances correlated with mantle source components in Hawaiian picrites: sulphides in the plume. Earth and Planetary Science Letters, 2000, 183, 513-526.	4.4	118
20	Assimilation of seawater-derived components in an oceanic volcano: evidence from matrix glasses and glass inclusions from Loihi seamount, Hawaii. Chemical Geology, 1999, 156, 299-319.	3.3	114
21	Isotopic studies of ferroan anorthosite 62236: a young lunar crustal rock from a light rare-earth-element-depleted source. Geochimica Et Cosmochimica Acta, 1999, 63, 2679-2691.	3.9	107
22	The composition and thickness of the crust of Mars estimated from rare earth elements and neodymiumâ€isotopic compositions of Martian meteorites. Meteoritics and Planetary Science, 1999, 34, 439-449.	1.6	106
23	Thallium isotopic evidence for ferromanganese sediments in the mantle source of Hawaiian basalts. Nature, 2006, 439, 314-317.	27.8	106
24	Two mantle-plume components in Hawaiian picrites inferred from correlated Osâ€“Pb isotopes. Nature, 1996, 381, 221-224.	27.8	105
25	The origin of shoshonites: new insights from the Tertiary high-potassium intrusions of eastern Tibet. Contributions To Mineralogy and Petrology, 2014, 167, 1.	3.1	100
26	Widespread assimilation of a seawater-derived component at Loihi Seamount, Hawaii. Geochimica Et Cosmochimica Acta, 1999, 63, 2749-2761.	3.9	96
27	An ancient Sm-Nd age for a ferroan noritic anorthosite clast from lunar breccia 67016. Geochimica Et Cosmochimica Acta, 1994, 58, 2921-2926.	3.9	92
28	Late Pleistocene and Holocene climate of SE Australia reconstructed from dust and river loads deposited offshore the River Murray Mouth. Earth and Planetary Science Letters, 2007, 255, 257-272.	4.4	92
29	Rhenium and chalcophile elements in basaltic glasses from Koâ€™olau and Molokaâ€™i volcanoes: Magmatic outgassing and composition of the Hawaiian plume. Geochimica Et Cosmochimica Acta, 2004, 68, 3761-3777.	3.9	89
30	A 4.2 billion year old impact basin on the Moon: Uâ€“Pb dating of zirconolite and apatite in lunar melt rock 67955. Earth and Planetary Science Letters, 2014, 388, 387-398.	4.4	84
31	Remnants of Gondwanan continental lithosphere in oceanic upper mantle: Evidence from the South Atlantic Ridge. Geology, 2001, 29, 243.	4.4	80
32	Nature of the lithospheric mantle beneath the eastern part of the Central Asian fold belt: mantle xenolith evidence. Tectonophysics, 2000, 328, 131-156.	2.2	79
33	Imbrium provenance for the Apollo 16 Descartes terrain: Argon ages and geochemistry of lunar breccias 67016 and 67455. Geochimica Et Cosmochimica Acta, 2010, 74, 763-783.	3.9	78
34	Chemical heterogeneity in the Hawaiian mantle plume from the alteration and dehydration of recycled oceanic crust. Earth and Planetary Science Letters, 2013, 361, 298-309.	4.4	75
35	Geochemical zoning and eruptive mixing in ignimbrites from Mangakino volcano, Taupo Volcanic Zone, New Zealand. Journal of Volcanology and Geothermal Research, 1993, 56, 175-203.	2.1	74
36	Temporal, Isotopic and Spatial Relations of Early Paleozoic Gondwana-Margin Arc Magmatism, Central Transantarctic Mountains, Antarctica. Journal of Petrology, 2012, 53, 2027-2065.	2.8	74

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37	Noble gases in pyroxenites and metasomatised peridotites from the Newer Volcanics, southeastern Australia: implications for mantle metasomatism. Chemical Geology, 2000, 168, 49-73.	3.3	73
38	Trace-element distribution coefficients for pyroxenes, plagioclase, and olivine in evolved tholeiites from the 1955 eruption of Kilauea Volcano, Hawai'i, and petrogenesis of differentiated rift-zone lavas. American Mineralogist, 2005, 90, 888-899.	1.9	73
39	Targeting the impactors: siderophile element signatures of lunar impact melts from Serenitatis. Earth and Planetary Science Letters, 2002, 202, 217-228.	4.4	71
40	Identifying impact events within the lunar cataclysm from 40Arâ€“39Ar ages and compositions of Apollo 16 impact melt rocks. Geochimica Et Cosmochimica Acta, 2006, 70, 6032-6049.	3.9	71
41	Isotopic enhancements of 17O and 18O from solar wind particles in the lunar regolith. Nature, 2006, 440, 776-778.	27.8	71
42	Seawater-like trace element signatures (REEÂ+ÂY) of Eoarchaean chemical sedimentary rocks from southern West Greenland, and their corruption during high-grade metamorphism. Contributions To Mineralogy and Petrology, 2008, 155, 229-246.	3.1	71
43	Major and Trace Element Analysis of Silicate Rocks by XRF and Laser Ablation ICP-MS Using Lithium Borate Fused Glasses: Matrix Effects, Instrument Response and Results for International Reference Materials. Geostandards and Geoanalytical Research, 2003, 27, 67-89.	3.1	70
44	Petrology and geochronology of basalt breccia from the 1996 earthquake swarm of Loihi seamount, Hawaii: magmatic history of its 1996 eruption. Bulletin of Volcanology, 1998, 59, 577-592.	3.0	68
45	Northwest Africa 773: Lunar origin and ironâ€enrichment trend. Meteoritics and Planetary Science, 2003, 38, 529-554.	1.6	67
46	Lead isotopic evidence for an Australian source of aeolian dust to Antarctica at times over the last 170,000years. Palaeogeography, Palaeoclimatology, Palaeoecology, 2010, 285, 205-223.	2.3	67
47	Smâ€“Nd, Sr, C and O isotope systematics in hydrothermal calciteâ€“fluorite veins: Implications for fluidâ€“rock reaction and geochronology. Chemical Geology, 2009, 268, 58-66.	3.3	63
48	â‰¥3700Ma pre-metamorphic dolomite formed by microbial mediation in the Isua supracrustal belt (W.) Tj ETQq0 0 0 rgBT /Overlock 1	2.7	62
49	Olivine-hosted melt inclusions in Hawaiian picrites: equilibration, melting, and plume source characteristics. Chemical Geology, 2002, 183, 143-168.	3.3	61
50	4He as a tracer of continental dust: a 1.9 million year record of aeolian flux to the west equatorial Pacific Ocean. Geochimica Et Cosmochimica Acta, 1999, 63, 615-625.	3.9	59
51	Thallium isotopes in Iceland and Azores lavas â€" Implications for the role of altered crust and mantle geochemistry. Earth and Planetary Science Letters, 2007, 264, 332-345.	4.4	58
52	The Lunar Cataclysm: Reality or "Mythconception"?. Elements, 2009, 5, 23-28.	0.5	58
53	Volcanic gas composition, metal dispersion and deposition during explosive volcanic eruptions on the Moon. Geochimica Et Cosmochimica Acta, 2017, 206, 296-311.	3.9	57
54	Terrestrial-like zircon in a clast from an Apollo 14 breccia. Earth and Planetary Science Letters, 2019, 510, 173-185.	4.4	56

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55	A Comparative Study of Five Reference Materials and the Lombard Meteorite for the Determination of the Platinumâ€Group Elements and Gold by LAâ€ICPâ€MS. Geostandards and Geoanalytical Research, 2013, 37, 51-64.	3.1	53
56	The granulitic impactite suite: Impact melts and metamorphic breccias of the early lunar crust. Meteoritics and Planetary Science, 1999, 34, 185-195.	1.6	52
57	Magnesium isotopic analysis of olivine by laser-ablation multi-collector ICP-MS: composition dependent matrix effects and a comparison of the Earth and Moon. Journal of Analytical Atomic Spectrometry, 2006, 21, 50-54.	3.0	46
58	From crucible to graben in 2.3 Ma: A high-resolution geochronological study of porphyry life cycles, Boyongan-Bayugo copper-gold deposits, Philippines. Geology, 2012, 40, 471-474.	4.4	43
59	The composition and distribution of the rejuvenated component across the Hawaiian plume: Hfâ€Ndâ€Srâ€Pb isotope systematics of Kaula lavas and pyroxenite xenoliths. Geochemistry, Geophysics, Geosystems, 2013, 14, 4458-4478.	2.5	43
60	Fragments of ancient lunar crust: Petrology and geochemistry of ferroan noritic anorthosites from the Descartes region of the Moon. Geochimica Et Cosmochimica Acta, 1995, 59, 831-847.	3.9	40
61	Origins of compositional heterogeneity in olivine-hosted melt inclusions from the Baffin Island picrites. Contributions To Mineralogy and Petrology, 2004, 148, 426-442.	3.1	40
62	Geochemical evolution of Cenozoic-Cretaceous magmatism and its relation to tectonic setting, southwestern Idaho, U.S.A. Earth and Planetary Science Letters, 1989, 94, 78-96.	4.4	39
63	Tracking Hadean processes in modern basalts with 142-Neodymium. Earth and Planetary Science Letters, 2018, 484, 184-191.	4.4	39
64	Petrogenesis of Challis volcanics from central and southwestern Idaho: Trace element and Pb isotopic evidence. Journal of Geophysical Research, 1991, 96, 13279-13293.	3.3	38
65	Geochemical Variations during Kilauea's Pu'u 'O'o Eruption Reveal a Fine-scale Mixture of Mantle Heterogeneities within the Hawaiian Plume. Journal of Petrology, 2008, 49, 1297-1318.	2.8	38
66	A new method for U-Pb geochronology of cassiterite by ID-TIMS applied to the Mole Granite polymetallic system, eastern Australia. Chemical Geology, 2020, 539, 119539.	3.3	37
67	The discovery of kimberlites in Antarctica extends the vast Gondwanan Cretaceous province. Nature Communications, 2013, 4, 2921.	12.8	36
68	Crystal accumulation in a 4.2 Ga lunar impact melt. Geochimica Et Cosmochimica Acta, 2016, 172, 410-429.	3.9	35
69	Detrital Zircon Ages from Early Proterozoic Quartzites, Wisconsin, Support Rapid Weathering and Deposition of Mature Quartz Arenites. Journal of Geology, 2004, 112, 305-315.	1.4	34
70	A late Pleistocene record of aeolian sedimentation in Blanche Cave, Naracoorte,ÂSouth Australia. Quaternary Science Reviews, 2009, 28, 2600-2615.	3.0	34
71	Characterisation of the major dust storm that traversed over eastern Australia in September 2009; a multidisciplinary approach. Aeolian Research, 2014, 15, 133-149.	2.7	34
72	Shield-stage alkalic volcanism on Mauna Loa Volcano, Hawaii. Journal of Volcanology and Geothermal Research, 2006, 151, 141-155.	2.1	33

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73	Ordovicianâ€“Silurian rift-passive margin on the Mexican margin of the Rheic Ocean overlain by Carboniferousâ€“Permian periarc rocks: Evidence from the eastern AcatlÃ¡n Complex, southern Mexico. Tectonophysics, 2008, 461, 291-310.	2.2	33
74	A laser-ablation ICP-MS study of Apollo 15 low-titanium olivine-normative and quartz-normative mare basalts. Geochimica Et Cosmochimica Acta, 2008, 72, 2556-2572.	3.9	33
75	Trace metals in lacustrine and marine sediments: A case study from the Gulf of Carpentaria, northern Australia. Chemical Geology, 1990, 82, 299-318.	3.3	32
76	Major element and primary sulfur concentrations in Apollo 12 mare basalts: The view from melt inclusions. Meteoritics and Planetary Science, 2005, 40, 679-693.	1.6	30
77	Magnesium isotopic composition of olivine from the Earth, Mars, Moon, and pallasite parent body. Geophysical Research Letters, 2006, 33, .	4.0	30
78	Assessment of crystallographic orientation effects on secondary ion mass spectrometry (SIMS) analysis of cassiterite. Chemical Geology, 2017, 467, 122-133.	3.3	29
79	Study of melt and a clast of 546 Ma magmatic arc rocks in the 65 Ma Chicxulub bolide breccia, northern Maya block, Mexico: western limit of Ediacaran arc peripheral to northern Gondwana. International Geology Review, 2011, 53, 1180-1193.	2.1	28
80	Lithium diffusion in olivine records magmatic priming of explosive basaltic eruptions. Earth and Planetary Science Letters, 2018, 500, 127-135.	4.4	27
81	Osmium isotopic compositions by vapor phase sample introduction using a multi-collector ICP-MS. Journal of Analytical Atomic Spectrometry, 2002, 17, 1394-1397.	3.0	26
82	U-Pb zircon geochronology of Palaeozoic units in Western and Central Guatemala: insights into the tectonic evolution of Middle America. Geological Society Special Publication, 2009, 328, 295-313.	1.3	26
83	Submarine radial vents on Mauna Loa Volcano, Hawai'i. Geochemistry, Geophysics, Geosystems, 2006, 7, n/a-n/a.	2.5	25
84	Lake and species specific patterns of non-diadromous recruitment in amphidromous fish: the importance of local recruitment and habitat requirements. Marine and Freshwater Research, 2017, 68, 2315.	1.3	23
85	Impact processing of chondritic planetesimals: Siderophile and volatile element fractionation in the Chico L chondrite. Meteoritics and Planetary Science, 2002, 37, 329-344.	1.6	20
86	Noble metals potential of sulfide-saturated melts from the subcontinental lithosphere. Geology, 2013, 41, 575-578.	4.4	20
87	Does otolith chemistry indicate diadromous lifecycles for five Australian riverine fishes?. Marine and Freshwater Research, 2009, 60, 904.	1.3	20
88	Mineral compositions in pristine lunar highland rocks and the diversity of highland magmatism. Geophysical Research Letters, 1991, 18, 2085-2088.	4.0	19
89	Extensive wet episodes in Late Glacial Australia resulting from high-latitude forcings. Scientific Reports, 2017, 7, 44054.	3.3	19
90	Geochemistry of lunar crustal rocks from breccia 67016 and the composition of the Moon. Geochimica Et Cosmochimica Acta, 1992, 56, 1013-1024.	3.9	18

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91	Provenance and Pb isotopic ages of lunar volcanic and impact glasses from the Apollo 17 landing site. Australian Journal of Earth Sciences, 2012, 59, 291-306.	1.0	18
92	Granites and rhyolites from the northwestern U.S.A.: temporal variation in magmatic processes and relations to tectonic setting. Earth and Environmental Science Transactions of the Royal Society of Edinburgh, 1992, 83, 71-81.	0.3	17
93	Element abundances, patterns, and mobility in Nakhlite Miller Range 03346 and implications for aqueous alteration. Geochimica Et Cosmochimica Acta, 2013, 112, 208-225.	3.9	17
94	Major and trace element compositions of georgiaites: Clues to the source of North American tektites. Meteoritics and Planetary Science, 2000, 35, 795-806.	1.6	16
95	Additional complexity in the lunar crust: Petrology of sodic anorthosites and sulfurâ€rich, ferroan noritic anorthosites. Geophysical Research Letters, 1991, 18, 2081-2084.	4.0	12
96	Effects of melting, subduction-related metasomatism, and sub-solidus equilibration on the distribution of water contents in the mantle beneath the Rio Grande Rift. Geochimica Et Cosmochimica Acta, 2019, 266, 351-381.	3.9	11
97	Open-system magmatic evolution of andesites and basalts from the Salmon Creek volcanics, southwestern Idaho, U.S.A.. Chemical Geology, 1990, 81, 167-189.	3.3	10
98	KÄ«lauea's Puâ€˜u â€˜ÅŒâ€˜Å•Eruption (1983â€“2018): A synthesis of magmatic processes during a prolonged basaltic event. Chemical Geology, 2021, 581, 120391.	3.3	10
99	Detrital Zircon Ages from Early Proterozoic Quartzites, Wisconsin, Support Rapid Weathering and Deposition of Mature Quartz Arenites: A Reply. Journal of Geology, 2005, 113, 235-236.	1.4	9
100	Sudbury Igneous Complex: Impact melt or endogenous magma? Implications for lunar crustal evolution. Special Paper of the Geological Society of America, 1992, , 331-342.	0.5	8
101	Impact History and Regolith Evolution on the Moon: Geochemistry and Ages of Glasses from the Apollo 16 Site. Journal of Geophysical Research E: Planets, 2019, 124, 3167-3180.	3.6	8
102	Re-evaluation of the composition of sediments from the Murray Darling Basin of Australia as a Potential Source Area for airborne dust to EPICA Dome C in Antarctica. Reply to Comment on â€œLead isotopic evidence for an Australian source of aeolian dust to Antarctica at times over the last 170,000yearsâ€•by P. De Deckker, M. Norman, I.D. Goodwin, A. Wain and F.X. Gingele [Palaeogeography, Palaeoclimatology, Palaeoecology 285 (2010) 205â€“223]. Palaeogeography, Palaeoclimatology, Palaeoecology, 2010, 298, 437-442.	2.3	5
103	Origin of the Earth and the Late Heavy Bombardment. , 2019, , 27-47.		5
104	Lunar impact breccias: petrology, crater setting, and bombardment history of the Moon. Australian Journal of Earth Sciences, 2005, 52, 711-723.	1.0	4
105	A laser desorption resonance ionization mass spectrometer for Rb-Sr geochronology: Sr isotope results. , 2012, , .		4
106	Life history plasticity affects the population structure and distribution of the widespread migratory fish Galaxias brevipinnis. Marine and Freshwater Research, 2021, 72, 542.	1.3	3
107	Iron isotope systematics during igneous differentiation in lavas from KÄ«lauea and Mauna Loa, Hawai'i. Chemical Geology, 2022, 606, 120973.	3.3	2
108	Granites and rhyolites from the northwestern U.S.A.: temporal variation in magmatic processes and relations to tectonic setting. Special Paper of the Geological Society of America, 1992, , 71-82.	0.5	1

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109	Cretaceous molybdenite in metasomatic epidosite associated with the Pounamu ophiolite, New Zealand. New Zealand Journal of Geology, and Geophysics, 2020, 63, 227-236.	1.8	1
110	Geology and geochronology of the Two-Thirty prospect, Northparkes district, NSW. Australian Journal of Earth Sciences, 2021, 68, 659-683.	1.0	1
111	Petrology of Koko Rift basalts: Hawaiâ€˜i's most recent and atypical rejuvenation stage eruptive sequence. Journal of Volcanology and Geothermal Research, 2022, 424, 107504.	2.1	1
112	Luna 24 ferrobasalt as a low-Mg primary melt. The Moon and the Planets, 1980, 23, 271-292.	0.5	0
113	Acceptance for the 2019 Geochemical Society Distinguished Service Award to Marc Norman. Geochimica Et Cosmochimica Acta, 2020, 272, 288.	3.9	0