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List of Publications by Citations

600 papers	43,229 citations	104 h-index	177 g-index
607 ext. papers	48,069 ext. citations	5.6 avg, IF	7.83 L-index

#	Paper	IF	Citations
600	Evidence from detrital zircons for the existence of continental crust and oceans on the Earth 4.4 Gyr ago. *Nature*, **2001**, 409, 175-8	50.4	1172
599	Magmatic and crustal differentiation history of granitic rocks from Hf-O isotopes in zircon. *Science*, **2007**, 315, 980-3	33.3	940
598	Further Characterisation of the 91500 Zircon Crystal. *Geostandards and Geoanalytical Research*, **2004**, 28, 9-39		902
597	4.4 billion years of crustal maturation: oxygen isotope ratios of magmatic zircon. *Contributions To Mineralogy and Petrology*, **2005**, 150, 561-580	3.5	760
596	Prediction of crystal□melt partition coefficients from elastic moduli. *Nature*, **1994**, 372, 452-454	50.4	737
595	Modification and preservation of environmental signals in speleothems. *Earth-Science Reviews*, **2006**, 75, 105-153	10.2	556
594	UWG-2, a garnet standard for oxygen isotope ratios: Strategies for high precision and accuracy with laser heating. *Geochimica Et Cosmochimica Acta*, **1995**, 59, 5223-5231	5.5	555
593	Using hafnium and oxygen isotopes in zircons to unravel the record of crustal evolution. *Chemical Geology*, **2006**, 226, 144-162	4.2	554
592	A change in the geodynamics of continental growth 3 billion years ago. *Science*, **2012**, 335, 1334-6	33.3	553
591	Episodic growth of the Gondwana supercontinent from hafnium and oxygen isotopes in zircon. *Nature*, **2006**, 439, 580-3	50.4	535
590	Oxygen Isotopes in Zircon. *Reviews in Mineralogy and Geochemistry*, **2003**, 53, 343-385	7.1	483
589	Zircon Behaviour and the Thermal Histories of Mountain Chains. *Elements*, **2007**, 3, 25-30	3.8	459
588	MPI-DING reference glasses for in situ microanalysis: New reference values for element concentrations and isotope ratios. *Geochemistry, Geophysics, Geosystems*, **2006**, 7, n/a-n/a	3.6	445
587	SIMS determination of trace element partition coefficients between garnet, clinopyroxene and hydrous basaltic liquids at 2□7.5 GPa and 1080□1200°C. *Lithos*, **2000**, 53, 165-187	2.9	445
586	Evolution of the continental crust. *Nature*, **2006**, 443, 811-7	50.4	433
585	A predictive model for rare earth element partitioning between clinopyroxene and anhydrous silicate melt. *Contributions To Mineralogy and Petrology*, **1997**, 129, 166-181	3.5	396
584	Experimental constraints on major and trace element partitioning during partial melting of eclogite. *Geochimica Et Cosmochimica Acta*, **2002**, 66, 3109-3123	5.5	343

583	The chemistry of zircon: Variations within and between large crystals from syenite and alkali basalt xenoliths. *Geochimica Et Cosmochimica Acta*, **1991**, 55, 3287-3302	5.5	340
582	Trace elements in speleothems as recorders of environmental change. *Quaternary Science Reviews*, **2009**, 28, 449-468	3.9	330
581	Isotopic evidence for rapid continental growth in an extensional accretionary orogen: The Tasmanides, eastern Australia. *Earth and Planetary Science Letters*, **2009**, 284, 455-466	5.3	322
580	Partitioning of trace elements between crystals and melts. *Earth and Planetary Science Letters*, **2003**, 210, 383-397	5.3	300
579	Heavy REE are compatible in clinopyroxene on the spinel lherzolite solidus. *Earth and Planetary Science Letters*, **1998**, 160, 493-504	5.3	294
578	A cool early Earth. *Geology*, **2002**, 30, 351	5	293
577	Magmatic δ18O in 4400–3900 Ma detrital zircons: A record of the alteration and recycling of crust in the Early Archean. *Earth and Planetary Science Letters*, **2005**, 235, 663-681	5.3	277
576	Trace-element geochemistry of mantle olivine and application to mantle petrogenesis and geothermobarometry. *Chemical Geology*, **2010**, 270, 196-215	4.2	262
575	A dearth of intermediate melts at subduction zone volcanoes and the petrogenesis of arc andesites. *Nature*, **2009**, 461, 1269-73	50.4	259
574	Oxygen isotope ratios and rare earth elements in 3.3 to 4.4 Ga zircons: Ion microprobe evidence for high δ18O continental crust and oceans in the Early Archean. *Geochimica Et Cosmochimica Acta*, **2001**, 65, 4215-4229	5.5	249
573	Refining the PTt records of UHT crustal metamorphism. *Journal of Metamorphic Geology*, **2008**, 26, 125-154	4.4	248
572	An integrated microtextural and chemical approach to zircon geochronology: refining the Archaean history of the Napier Complex, east Antarctica. *Contributions To Mineralogy and Petrology*, **2005**, 149, 57-84	3.5	246
571	Uranium–thorium disequilibria and partitioning on melting of garnet peridotite. *Nature*, **1993**, 363, 63-65	50.4	238
570	Magma heating by decompression-driven crystallization beneath andesite volcanoes. *Nature*, **2006**, 443, 76-80	50.4	235
569	Trace Element Partitioning and Accessory Phase Saturation during H2O-Saturated Melting of Basalt with Implications for Subduction Zone Chemical Fluxes. *Journal of Petrology*, **2008**, 49, 523-553	3.9	228
568	Fractionation of trace elements by subduction-zone metamorphism—effect of convergent-margin thermal evolution. *Earth and Planetary Science Letters*, **1999**, 171, 63-81	5.3	228
567	Partitioning of Sr2+ and Mg2+ into calcite under karst-analogue experimental conditions. *Geochimica Et Cosmochimica Acta*, **2001**, 65, 47-62	5.5	226
566	Systematics and energetics of trace-element partitioning between olivine and silicate melts: Implications for the nature of mineral/melt partitioning. *Chemical Geology*, **1994**, 117, 57-71	4.2	221

565	Low-δ18O Rhyolites from Yellowstone: Magmatic Evolution Based on Analyses of Zircons and Individual Phenocrysts. *Journal of Petrology*, **2001**, 42, 1491-1517	3.9	218
564	Partial melting and phase relations in high-grade metapelites: an experimental petrogenetic grid in the KFMASH system. *Contributions To Mineralogy and Petrology*, **1995**, 120, 270-291	3.5	213
563	REE fractionation and Nd-isotope disequilibrium during crustal anatexis: constraints from Himalayan leucogranites. *Chemical Geology*, **1997**, 139, 249-269	4.2	207
562	Li isotope fractionation in peridotites and mafic melts. *Geochimica Et Cosmochimica Acta*, **2007**, 71, 202-218	5.3	205
561	Partitioning of high field-strength and rare-earth elements between amphibole and quartz-dioritic to tonalitic melts: an experimental study. *Chemical Geology*, **1997**, 138, 257-271	4.2	197
560	Kankan diamonds (Guinea) II: lower mantle inclusion parageneses. *Contributions To Mineralogy and Petrology*, **2000**, 140, 16-27	3.5	190
559	Magma Evolution and Open-System Processes at Shiveluch Volcano: Insights from Phenocryst Zoning. *Journal of Petrology*, **2006**, 47, 2303-2334	3.9	189
558	The effect of Ca-Tschermaks component on trace element partitioning between clinopyroxene and silicate melt. *Lithos*, **2000**, 53, 203-215	2.9	189
557	An experimental study of trace element partitioning between zircon and melt as a function of oxygen fugacity. *Geochimica Et Cosmochimica Acta*, **2012**, 95, 196-212	5.5	185
556	Primary carbonatite melt from deeply subducted oceanic crust. *Nature*, **2008**, 454, 622-5	50.4	183
555	Geochemistry, petrology, and cooling history of 14161,7373: A plutonic lunar sample with textural evidence of granitic-fraction separation by silicate-liquid immiscibility. *American Mineralogist*, **1999**, 84, 838-847	2.9	182
554	Accessory phase controls on the geochemistry of crustal melts and restites produced during water-undersaturated partial melting. *Contributions To Mineralogy and Petrology*, **1993**, 114, 550-566	3.5	182
553	Determination of partition coefficients between apatite, clinopyroxene, amphibole, and melt in natural spinel lherzolites from Yemen: Implications for wet melting of the lithospheric mantle. *Geochimica Et Cosmochimica Acta*, **1996**, 60, 423-437	5.5	180
552	SIMS analysis of oxygen isotopes: matrix effects in complex minerals and glasses. *Chemical Geology*, **1997**, 138, 221-244	4.2	176
551	Experimental comparison of trace element partitioning between clinopyroxene and melt in carbonate and silicate systems, and implications for mantle metasomatism. *Contributions To Mineralogy and Petrology*, **2000**, 139, 356-371	3.5	173
550	The generation of uranium series disequilibria by partial melting of spinel peridotite: constraints from partitioning studies. *Earth and Planetary Science Letters*, **1993**, 117, 379-391	5.3	170
549	An experimental study of amphibole stability in low-pressure granitic magmas and a revised Al-in-hornblende geobarometer. *Contributions To Mineralogy and Petrology*, **2016**, 171, 1	3.5	168
548	Rapid decompression-driven crystallization recorded by melt inclusions from Mount St. Helens volcano. *Geology*, **2005**, 33, 793	5	168

547	Evaporite mineral assemblages in the nakhlite (martian) meteorites. *Earth and Planetary Science Letters*, **2000**, 176, 267-279	5.3	167
546	A case for CO2-rich arc magmas. *Earth and Planetary Science Letters*, **2010**, 290, 289-301	5.3	165
545	Silicon and Oxygen Self-Diffusivities in Silicate Liquids Measured to 15 Gigapascals and 2800 Kelvin. *Science*, **1997**, 276, 1245-1248	33.3	165
544	Trace element distribution in annual stalagmite laminae mapped by micrometer-resolution X-ray fluorescence: Implications for incorporation of environmentally significant species. *Geochimica Et Cosmochimica Acta*, **2007**, 71, 1494-1512	5.5	163
543	Zircon Tiny but Timely. *Elements*, **2007**, 3, 13-18	3.8	161
542	Metasomatic processes in lherzolitic and harzburgitic domains of diamondiferous lithospheric mantle: REE in garnets from xenoliths and inclusions in diamonds. *Earth and Planetary Science Letters*, **1998**, 159, 1-12	5.3	159
541	Annual trace element variations in a Holocene speleothem. *Earth and Planetary Science Letters*, **1998**, 154, 237-246	5.3	158
540	Seasonal variations in Sr, Mg and P in modern speleothems (Grotta di Ernesto, Italy). *Chemical Geology*, **2001**, 175, 429-448	4.2	156
539	Low-temperature carbonate concretions in the Martian meteorite ALH84001: evidence from stable isotopes and mineralogy. *Science*, **1997**, 275, 1633-8	33.3	149
538	The trace element composition of silicate inclusions in diamonds: a review. *Lithos*, **2004**, 77, 1-19	2.9	149
537	High-pressure Hydrous Phase Relations of Radiolarian Clay and Implications for the Involvement of Subducted Sediment in Arc Magmatism. *Journal of Petrology*, **2010**, 51, 2211-2243	3.9	148
536	Sodium partitioning between clinopyroxene and silicate melts. *Journal of Geophysical Research*, **1995**, 100, 15501-15515		147
535	Aragonite-Calcite Relationships in Speleothems (Grotte De Clamouse, France): Environment, Fabrics, and Carbonate Geochemistry. *Journal of Sedimentary Research*, **2002**, 72, 687-699	2.1	146
534	Mineral-Melt Partitioning of Uranium, Thorium and Their Daughters. *Reviews in Mineralogy and Geochemistry*, **2003**, 52, 59-123	7.1	146
533	Trace element partitioning on the Tinaquillo Lherzolite solidus at 1.5GPa. *Physics of the Earth and Planetary Interiors*, **2003**, 139, 129-147	2.3	143
532	In situ U-Pb rutile dating by LA-ICP-MS: 208Pb correction and prospects for geological applications. *Contributions To Mineralogy and Petrology*, **2011**, 162, 515-530	3.5	142
531	Structure of the 8200-year cold event revealed by a speleothem trace element record. *Science*, **2002**, 296, 2203-6	33.3	136
530	Development of microporosity, diffusion channels and deuteric coarsening in perthitic alkali feldspars. *Contributions To Mineralogy and Petrology*, **1990**, 104, 507-515	3.5	136

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528	Silicate perovskite-melt partitioning of trace elements and geochemical signature of a deep perovskitic reservoir. *Geochimica Et Cosmochimica Acta*, **2005**, 69, 485-496	5.5	134
527	Correlated microanalysis of zircon: Trace element, δ18O, and U–Th–Pb isotopic constraints on the igneous origin of complex >3900 Ma detrital grains. *Geochimica Et Cosmochimica Acta*, **2006**, 70, 5601-5616	5.5	133
526	Si and O diffusion in olivine and implications for characterizing plastic flow in the mantle. *Geophysical Research Letters*, **2002**, 29, 26-1	4.9	133
525	Water solubility and chlorine partitioning in Cl-rich granitic systems: Effects of melt composition at 2 kbar and 800°C. *Geochimica Et Cosmochimica Acta*, **1992**, 56, 679-687	5.5	133
524	Boron and calcium isotope composition in Neoproterozoic carbonate rocks from Namibia: evidence for extreme environmental change. *Earth and Planetary Science Letters*, **2005**, 231, 73-86	5.3	132
523	Annual to sub-annual resolution of multiple trace-element trends in speleothems. *Journal of the Geological Society*, **2001**, 158, 831-841	2.7	132
522	The role of clinopyroxene in generating U-series disequilibrium during mantle melting. *Geochimica Et Cosmochimica Acta*, **1999**, 63, 1613-1620	5.5	132
521	Mineral inclusions in sublithospheric diamonds from Collier 4 kimberlite pipe, Juina, Brazil: subducted protoliths, carbonated melts and primary kimberlite magmatism. *Contributions To Mineralogy and Petrology*, **2010**, 160, 489-510	3.5	131
520	Plagioclase residence times at two island arc volcanoes (Kameni Islands, Santorini, and Soufriere, St. Vincent) determined by Sr diffusion systematics. *Contributions To Mineralogy and Petrology*, **1999**, 136, 345-357	3.5	131
519	Partitioning of F between H2O and CO2 fluids and topaz rhyolite melt. *Contributions To Mineralogy and Petrology*, **1990**, 104, 424-438	3.5	131
518	Metapelitic Migmatites from Brattstrand Bluffs, East Antarctica—Metamorphism, Melting and Exhumation of the Mid Crust. *Journal of Petrology*, **1996**, 37, 395-414	3.9	128
517	Rates of hydrothermal cooling of new oceanic upper crust derived from lithium-geospeedometry. *Earth and Planetary Science Letters*, **2005**, 240, 415-424	5.3	126
516	Ion microprobe trace-element analysis of silicates: Measurement of multi-element glasses. *Chemical Geology*, **1990**, 83, 11-25	4.2	126
515	Geochemistry of granitic melts produced during the incongruent melting of muscovite: Implications for the extraction of Himalayan leucogranite magmas. *Journal of Geophysical Research*, **1995**, 100, 15767-15777		125
514	Fluid-melt interactions involving Cl-rich granites: Experimental study from 2 to 8 kbar. *Geochimica Et Cosmochimica Acta*, **1992**, 56, 659-678	5.5	122
513	The effect of cation charge on crystal–melt partitioning of trace elements. *Earth and Planetary Science Letters*, **2001**, 188, 59-71	5.3	119
512	Quantifying physiological influences on otolith microchemistry. *Methods in Ecology and Evolution*, **2015**, 6, 806-816	7.7	118

511	Apatite: A new redox proxy for silicic magmas?. *Geochimica Et Cosmochimica Acta*, **2014**, 132, 101-119	5.5	117
510	The impact of zircon–garnet REE distribution data on the interpretation of zircon U–Pb ages in complex high-grade terrains: An example from the Rauer Islands, East Antarctica. *Chemical Geology*, **2007**, 241, 62-87	4.2	117
509	Reconstructing the deep CO2 degassing behaviour of large basaltic fissure eruptions. *Earth and Planetary Science Letters*, **2014**, 393, 120-131	5.3	115
508	Magma Emplacement and Remobilization Timescales Beneath Montserrat: Insights from Sr and Ba Zonation in Plagioclase Phenocrysts. *Journal of Petrology*, **2003**, 44, 1413-1431	3.9	115
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506	Near-solidus evolution of oceanic gabbros: insights from amphibole geochemistry. *Geochimica Et Cosmochimica Acta*, **2001**, 65, 4339-4357	5.5	113
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504	High-temperature lithium isotope fractionation: Insights from lithium isotope diffusion in magmatic systems. *Earth and Planetary Science Letters*, **2007**, 257, 609-621	5.3	112
503	Experimental determination of the diffusion coefficient for calcium in olivine between 900°C and 1500°C. *Geochimica Et Cosmochimica Acta*, **2005**, 69, 3683-3694	5.5	110
502	Diamonds from the asthenosphere and the transition zone. *European Journal of Mineralogy*, **2001**, 13, 883-892	2.2	109
501	Partitioning of trace elements between clinopyroxene and garnet: data from mantle eclogites. *Chemical Geology*, **1997**, 136, 1-24	4.2	108
500	Melt geometry, movement and crystallization, in relation to mantle dykes, veins and metasomatism. *Philosophical Transactions of the Royal Society: Physical and Engineering Sciences*, **1993**, 342, 1-21		108
499	Experimental partitioning of high field strength and rare earth elements between clinopyroxene and garnet in andesitic to tonalitic systems. *Geochimica Et Cosmochimica Acta*, **2000**, 64, 99-115	5.5	107
498	Concurrent Mixing and Cooling of Melts under Iceland. *Journal of Petrology*, **2008**, 49, 1931-1953	3.9	106
497	Ultrahigh temperature granulite metamorphism (1050 °C, 12 kbar) and decompression in garnet (Mg70)–orthopyroxene–sillimanite gneisses from the Rauer Group, East Antarctica. *Journal of Metamorphic Geology*, **1998**, 16, 541-562	4.4	104
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495	Melt inclusions track pre-eruption storage and dehydration of magmas at Etna. *Geology*, **2009**, 37, 571-574	5	103
494	Coralline algae are global palaeothermometers with bi-weekly resolution. *Geochimica Et Cosmochimica Acta*, **2008**, 72, 771-779	5.5	103

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492	Evolving east Asian river systems reconstructed by trace element and Pb and Nd isotope variations in modern and ancient Red River-Song Hong sediments. *Geochemistry, Geophysics, Geosystems*, **2008**, 9, n/a-n/a	3.6	100
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489	Lead isotope variability in olivine-hosted melt inclusions from Iceland. *Geochimica Et Cosmochimica Acta*, **2008**, 72, 4159-4176	5.5	99
488	Channelized Fluid Flow and Eclogite-facies Metasomatism along the Subduction Shear Zone. *Journal of Petrology*, **2014**, 55, 883-916	3.9	98
487	Annual trace element cycles in calcite□ragonite speleothems: evidence of drought in the western Mediterranean 1200□1100 yr BP. *Journal of Quaternary Science*, **2005**, 20, 423-433	2.3	98
486	Slow oxygen diffusion rates in igneous zircons from metamorphic rocks. *American Mineralogist*, **2003**, 88, 1003-1014	2.9	96
485	Zircon growth in UHT leucosome: constraints from zircon-garnet rare earth elements (REE) relations in Napier Complex, East Antarctica. *Journal of Mineralogical and Petrological Sciences*, **2004**, 99, 180-190	0.9	96
484	Experimental determination of REE partition coefficients between zircon, garnet and melt: a key to understanding high-T crustal processes. *Journal of Metamorphic Geology*, **2015**, 33, 231-248	4.4	94
483	A matter of time: The importance of the duration of UHT metamorphism. *Journal of Mineralogical and Petrological Sciences*, **2016**, 111, 50-72	0.9	94
482	Ultra-Trace Element Analysis of NIST SRM 616 and 614 using Laser Ablation Microprobe-Inductively Coupled Plasma-Mass Spectrometry (LAM-ICP-MS): a Comparison with Secondary Ion Mass Spectrometry (SIMS). *Geostandards and Geoanalytical Research*, **1997**, 21, 191-203	3.6	94
481	Petrological cannibalism: the chemical and textural consequences of incremental magma body growth. *Contributions To Mineralogy and Petrology*, **2013**, 166, 703-729	3.5	93
480	Cathodoluminescence and trace element zoning in quartz phenocrysts and xenocrysts. *Geochimica Et Cosmochimica Acta*, **1997**, 61, 4337-4348	5.5	93
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478	The differentiation and rates of generation of the continental crust. *Chemical Geology*, **2006**, 226, 134-143	3.2	92
477	The causes and petrological significance of cathodoluminescence emissions from alkali feldspars. *Contributions To Mineralogy and Petrology*, **1999**, 135, 234-243	3.5	92
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471	Tracing Lithosphere Evolution through the Analysis of Heterogeneous G9-G10 Garnets in Peridotite Xenoliths, II: REE Chemistry. *Journal of Petrology*, **2004**, 45, 609-633	3.9	88
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466	Post-caldera volcanism: in situ measurement of U–Pb age and oxygen isotope ratio in Pleistocene zircons from Yellowstone caldera. *Earth and Planetary Science Letters*, **2001**, 189, 197-206	5.3	86
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461	Linking granulites, silicic magmatism, and crustal growth in arcs: Ion microprobe (zircon) U-Pb ages from the Hidaka metamorphic belt, Japan. *Geology*, **2007**, 35, 807	5	82
460	The self-diffusion of silicon and oxygen in diopside (CaMgSi2O6) liquid up to 15 GPa. *Chemical Geology*, **2001**, 174, 77-86	4.2	82
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444	In situ boron isotope analysis in marine carbonates and its application for foraminifera and palaeo-pH. *Chemical Geology*, **2009**, 260, 138-147	4.2	75
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