

# Greg M Yaxley

## List of Publications by Citations

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77  
papers

6,076  
citations

38  
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77  
g-index

83  
ext. papers

6,803  
ext. citations

6  
avg, IF

5.68  
L-index

#	Paper	IF	Citations
77	. <i>Science</i> ,	33.3	
76	SIMS determination of trace element partition coefficients between garnet, clinopyroxene and hydrous basaltic liquids at 27.5 GPa and 1080–200°C. <i>Lithos</i> , <b>2000</b> , 53, 165-187	2.9	445
75	Evidence for carbonatite metasomatism in spinel peridotite xenoliths from western Victoria, Australia. <i>Earth and Planetary Science Letters</i> , <b>1991</b> , 107, 305-317	5.3	350
74	Carbonatite Metasomatism in the Southeastern Australian Lithosphere. <i>Journal of Petrology</i> , <b>1998</b> , 39, 1917-1930	3.9	314
73	Phase relations of carbonate-bearing eclogite assemblages from 2.5 to 5.5 GPa: implications for petrogenesis of carbonatites. <i>Contributions To Mineralogy and Petrology</i> , <b>2004</b> , 146, 606-619	3.5	227
72	The composition of near-solidus melts of peridotite in the presence of CO <sub>2</sub> and H <sub>2</sub> O between 40 and 60 kbar. <i>Lithos</i> , <b>2009</b> , 112, 274-283	2.9	213
71	The Amount of Recycled Crust in Sources of Mantle-Derived Melts. <i>Science</i> , <b>2007</b> , 316, 412-417	33.3	210
70	The South Patagonian batholith: 150 my of granite magmatism on a plate margin. <i>Lithos</i> , <b>2007</b> , 97, 373-394	3.9	207
69	Prediction of siderophile element metal-silicate partition coefficients to 20 GPa and 2800°C: the effects of pressure, temperature, oxygen fugacity, and silicate and metallic melt compositions. <i>Physics of the Earth and Planetary Interiors</i> , <b>1997</b> , 100, 115-134	2.3	205
68	Experimental study of the phase and melting relations of homogeneous basalt + peridotite mixtures and implications for the petrogenesis of flood basalts. <i>Contributions To Mineralogy and Petrology</i> , <b>2000</b> , 139, 326-338	3.5	186
67	The distribution of lithium in peridotitic and pyroxenitic mantle lithologies – an indicator of magmatic and metasomatic processes. <i>Chemical Geology</i> , <b>2000</b> , 166, 47-64	4.2	159
66	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). <i>Journal of Petrology</i> , <b>2010</b> , 51, 1237-1266	3.9	148
65	Experimental demonstration of refractory carbonate-bearing eclogite and siliceous melt in the subduction regime. <i>Earth and Planetary Science Letters</i> , <b>1994</b> , 128, 313-325	5.3	145
64	Magnesium stable isotope composition of Earth's upper mantle. <i>Earth and Planetary Science Letters</i> , <b>2009</b> , 282, 306-313	5.3	133
63	Phase Relations and Melting of Anhydrous K-bearing Eclogite from 1200 to 1600°C and 3 to 5 GPa. <i>Journal of Petrology</i> , <b>2007</b> , 49, 771-795	3.9	126
62	Primary magmas and mantle temperatures. <i>European Journal of Mineralogy</i> , <b>2001</b> , 13, 437-451	2.2	125
61	Solidus of alkaline carbonatite in the deep mantle. <i>Geology</i> , <b>2013</b> , 41, 79-82	5	121

60	Evidence for subduction at 3.8 Ga: Geochemistry of arc-like metabasalts from the southern edge of the Isua Supracrustal Belt. <i>Chemical Geology</i> , <b>2009</b> , 261, 83-98	4.2	102
59	Experimental Study of the Influence of Water on Melting and Phase Assemblages in the Upper Mantle. <i>Journal of Petrology</i> , <b>2014</b> , 55, 2067-2096	3.9	96
58	An Experimental Study of Carbonated Eclogite at 3{middle dot}5-5{middle dot}5 GPa--Implications for Silicate and Carbonate Metasomatism in the Cratonic Mantle. <i>Journal of Petrology</i> , <b>2012</b> , 53, 727-759	3.9	93
57	Melting and Phase Relations of Carbonated Eclogite at 9-21 GPa and the Petrogenesis of Alkali-Rich Melts in the Deep Mantle. <i>Journal of Petrology</i> , <b>2013</b> , 54, 1555-1583	3.9	90
56	Glasses in mantle xenoliths from western Victoria, Australia, and their relevance to mantle processes. <i>Earth and Planetary Science Letters</i> , <b>1997</b> , 148, 433-446	5.3	88
55	Carbonate-silicate liquid immiscibility in the mantle propels kimberlite magma ascent. <i>Geochimica Et Cosmochimica Acta</i> , <b>2015</b> , 158, 48-56	5.5	77
54	An oxygen fugacity profile through the Siberian Craton [Fe K-edge XANES determinations of Fe <sup>3+</sup> /Fe in garnets in peridotite xenoliths from the Udachnaya East kimberlite. <i>Lithos</i> , <b>2012</b> , 140-141, 142-151	5.9	77
53	Experimental phase and melting relations of metapelite in the upper mantle: implications for the petrogenesis of intraplate magmas. <i>Contributions To Mineralogy and Petrology</i> , <b>2010</b> , 160, 569-589	3.5	66
52	In situ origin for glass in mantle xenoliths from southeastern Australia: insights from trace element compositions of glasses and metasomatic phases. <i>Earth and Planetary Science Letters</i> , <b>1999</b> , 172, 97-109	5.3	63
51	High-pressure partial melting of gabbro and its role in the Hawaiian magma source. <i>Contributions To Mineralogy and Petrology</i> , <b>2007</b> , 154, 371-383	3.5	62
50	Noble gases in pyroxenites and metasomatised peridotites from the Newer Volcanics, southeastern Australia: implications for mantle metasomatism. <i>Chemical Geology</i> , <b>2000</b> , 168, 49-73	4.2	60
49	Experimental reconstruction of sodic dolomitic carbonatite melts from metasomatised lithosphere. <i>Contributions To Mineralogy and Petrology</i> , <b>1996</b> , 124, 359-369	3.5	60
48	Alkali-carbonate melts from the base of cratonic lithospheric mantle: Links to kimberlites. <i>Chemical Geology</i> , <b>2018</b> , 483, 261-274	4.2	51
47	New constraints from U-Bi, Lu-Hf and Sm-Nd isotopic data on the timing of sedimentation and felsic magmatism in the Larsemann Hills, Prydz Bay, East Antarctica. <i>Precambrian Research</i> , <b>2012</b> , 206-207, 87-108	3.9	51
46	A XANES calibration for determining the oxidation state of iron in mantle garnet. <i>Chemical Geology</i> , <b>2010</b> , 278, 31-37	4.2	51
45	Varying behaviour of Li in metasomatised spinel peridotite xenoliths from western Victoria, Australia. <i>Lithos</i> , <b>2004</b> , 75, 55-66	2.9	48
44	The role of detrital zircons in Hadean crustal research. <i>Lithos</i> , <b>2014</b> , 190-191, 313-327	2.9	46
43	Crystallization of platinum-group minerals from silicate melts: Evidence from Cr-spinel-hosted inclusions in volcanic rocks. <i>Geology</i> , <b>2015</b> , 43, 903-906	5	45

42	Late Paleozoic/Early Triassic magmatism on the western margin of Gondwana: Collahuasi area, Northern Chile. <i>Gondwana Research</i> , <b>2008</b> , 13, 407-427	5.1	43
41	Redox preconditioning deep cratonic lithosphere for kimberlite genesis - evidence from the central Slave Craton. <i>Scientific Reports</i> , <b>2017</b> , 7, 30	4.9	42
40	Continuous eclogite melting and variable refertilisation in upwelling heterogeneous mantle. <i>Scientific Reports</i> , <b>2014</b> , 4, 6099	4.9	40
39	Magnesium isotopic analysis of olivine by laser-ablation multi-collector ICP-MS: composition dependent matrix effects and a comparison of the Earth and Moon. <i>Journal of Analytical Atomic Spectrometry</i> , <b>2006</b> , 21, 50-54	3.7	35
38	Origins of compositional heterogeneity in olivine-hosted melt inclusions from the Baffin Island picrites. <i>Contributions To Mineralogy and Petrology</i> , <b>2004</b> , 148, 426-442	3.5	35
37	Metapyroxenite in the mantle transition zone revealed from majorite inclusions in diamonds. <i>Geology</i> , <b>2013</b> , 41, 883-886	5	32
36	Multiple mantle sources of continental magmatism: Insights from High-Ti picrites of Karoo and other large igneous provinces. <i>Chemical Geology</i> , <b>2017</b> , 455, 22-31	4.2	31
35	The discovery of kimberlites in Antarctica extends the vast Gondwanan Cretaceous province. <i>Nature Communications</i> , <b>2013</b> , 4, 2921	17.4	30
34	Lu/Hf isotope evidence for the provenance of Permian detritus in accretionary complexes of western Patagonia and the northern Antarctic Peninsula region. <i>Journal of South American Earth Sciences</i> , <b>2011</b> , 32, 485-496	2	30
33	The concurrent emergence and causes of double volcanic hotspot tracks on the Pacific plate. <i>Nature</i> , <b>2017</b> , 545, 472-476	50.4	28
32	Eoarchean within-plate basalts from southwest Greenland. <i>Geology</i> , <b>2013</b> , 41, 327-330	5	26
31	Magnesium isotopic composition of olivine from the Earth, Mars, Moon, and pallasite parent body. <i>Geophysical Research Letters</i> , <b>2006</b> , 33,	4.9	26
30	An experimental investigation of CO <sub>2</sub> fluid-driven carbonation of serpentinites under forearc conditions. <i>Earth and Planetary Science Letters</i> , <b>2018</b> , 496, 178-188	5.3	25
29	Reconciling petrological and isotopic mixing mechanisms in the Pitcairn mantle plume using stable Fe isotopes. <i>Earth and Planetary Science Letters</i> , <b>2019</b> , 521, 60-67	5.3	21
28	Mantle melting versus mantle metasomatism – the chicken or the egg dilemma. <i>Chemical Geology</i> , <b>2017</b> , 455, 120-130	4.2	21
27	Compositional data analysis for elemental data in forensic science. <i>Forensic Science International</i> , <b>2009</b> , 188, 81-90	2.6	21
26	Quantitative mapping of the oxidative effects of mantle metasomatism. <i>Geology</i> , <b>2013</b> , 41, 683-686	5	20
25	Relationships between oxygen fugacity and metasomatism in the Kaapvaal subcratonic mantle, represented by garnet peridotite xenoliths in the Wesselton kimberlite, South Africa. <i>Lithos</i> , <b>2015</b> , 212-215, 443-452	2.9	19

24	Timescales between mantle metasomatism and kimberlite ascent indicated by diffusion profiles in garnet crystals from peridotite xenoliths. <i>Earth and Planetary Science Letters</i> , <b>2018</b> , 481, 143-153	5.3	18
23	Major zircon megacryst suites of the Indo-Pacific lithospheric margin (ZIP) and their petrogenetic and regional implications. <i>Mineralogy and Petrology</i> , <b>2016</b> , 110, 399-420	1.6	15
22	Methane-bearing fluids in the upper mantle: an experimental approach. <i>Contributions To Mineralogy and Petrology</i> , <b>2019</b> , 174, 1	3.5	15
21	Detrital zircon age constraints on the provenance of sandstones on Hatton Bank and Edoras Bank, NE Atlantic. <i>Journal of the Geological Society</i> , <b>2009</b> , 166, 137-146	2.7	13
20	Detrital apatite geochemistry and its application in provenance studies <b>2007</b> ,		13
19	The provenance of Borneo's enigmatic alluvial diamonds: A case study from Cempaka, SE Kalimantan. <i>Gondwana Research</i> , <b>2016</b> , 38, 251-272	5.1	12
18	Detrital zircon U-Pb and O isotope character of the Cahill Formation and Nourlangie Schist, Pine Creek Orogen: Implications for the tectonic correlation and evolution of the North Australian Craton. <i>Precambrian Research</i> , <b>2014</b> , 246, 35-53	3.9	12
17	Melt inclusions in phenocrysts track enriched upper mantle source for Cenozoic Tengchong volcanic field, Yunnan Province, SW China. <i>Lithos</i> , <b>2019</b> , 324-325, 180-201	2.9	11
16	Micro-characterisation of cassiterite by geology, texture and zonation: A case study of the Karagwe Ankole Belt, Rwanda. <i>Ore Geology Reviews</i> , <b>2020</b> , 124, 103609	3.2	10
15	Kimberlites from Source to Surface: Insights from Experiments. <i>Elements</i> , <b>2019</b> , 15, 393-398	3.8	10
14	An experimental study of trace element distribution during partial melting of mantle heterogeneities. <i>Chemical Geology</i> , <b>2017</b> , 462, 74-87	4.2	9
13	Magmatic evolution and tectonic setting of metabasites from Lützow-Holm Complex, East Antarctica. <i>Geological Society Special Publication</i> , <b>2008</b> , 308, 211-233	1.7	9
12	Phase relations and melting of nominally dry residual eclogites with variable CaO/Na <sub>2</sub> O from 3 to 5 GPa and 1250 to 1500 °C; implications for refertilisation of upwelling heterogeneous mantle. <i>Lithos</i> , <b>2018</b> , 314-315, 506-519	2.9	7
11	CO <sub>2</sub> -Rich Melts in Earth <b>2019</b> , 129-162		6
10	Investigation of Fluid-driven Carbonation of a Hydrated, Forearc Mantle Wedge using Serpentinite Cores in High-pressure Experiments. <i>Journal of Petrology</i> , <b>2020</b> , 61,	3.9	6
9	Carbonatites: Classification, Sources, Evolution, and Emplacement. <i>Annual Review of Earth and Planetary Sciences</i> , <b>2022</b> , 50,	15.3	5
8	Experimental investigation of the composition of incipient melts in upper mantle peridotites in the presence of CO <sub>2</sub> and H <sub>2</sub> O. <i>Lithos</i> , <b>2021</b> , 396-397, 106224	2.9	5
7	Reduced methane-bearing fluids as a source for diamond. <i>Scientific Reports</i> , <b>2020</b> , 10, 6961	4.9	4

6	Experimental recalibration of the Cr-in-clinopyroxene geobarometer: improved precision and reliability above 4.5 GPa. <i>Contributions To Mineralogy and Petrology</i> , <b>2021</b> , 176, 1	3.5	4
5	Evolution of Carbonatite Magmas in the Upper Mantle and Crust. <i>Elements</i> , <b>2021</b> , 17, 315-320	3.8	2
4	Eoarchean within-plate basalts from southwest Greenland: REPLY. <i>Geology</i> , <b>2014</b> , 42, e331-e331	5	1
3	Foreword: The Roles of Petrology and Experimental Petrology in Understanding Global Tectonics. <i>Journal of Petrology</i> , <b>2007</b> , 49, 587-589	3.9	1
2	Ni-in-garnet geothermometry in mantle rocks: a high pressure experimental recalibration between 1100 and 1325 °C. <i>Contributions To Mineralogy and Petrology</i> , <b>2021</b> , 176, 1	3.5	1
1	COH-fluid induced metasomatism of peridotites in the forearc mantle. <i>Contributions To Mineralogy and Petrology</i> , <b>2022</b> , 177, 1	3.5	0