Kathy Ehrig

List of Publications by Citations

89 papers	1,460 citations	24 h-index	32 g-index
92 ext. papers	1,724 ext. citations	3.3 avg, IF	4.98 L-index

#	Paper	IF	Citations
89	Trace Element Analysis of Minerals in Magmatic-Hydrothermal Ores by Laser Ablation Inductively-Coupled Plasma Mass Spectrometry: Approaches and Opportunities. *Minerals (Basel, Switzerland)*, **2016**, 6, 111	2.4	75
88	The fluorine link between a supergiant ore deposit and a silicic large igneous province. *Geology*, **2011**, 39, 1003-1006	5	66
87	Uraninite from the Olympic Dam IOCG-U-Ag deposit: linking textural and compositional variation to temporal evolution. *American Mineralogist*, **2016**, 101, 1295-1320	2.9	48
86	Origin of the supergiant Olympic Dam Cu-U-Au-Ag deposit, South Australia: Was a sedimentary basin involved?. *Geology*, **2011**, 39, 795-798	5	45
85	Selective leaching of penalty elements from copper concentrates: A review. *Minerals Engineering*, **2016**, 98, 110-121	4.9	44
84	Neoproterozoic (ca. 820–830 Ma) mafic dykes at Olympic Dam, South Australia: Links with the Gairdner Large Igneous Province. *Precambrian Research*, **2015**, 271, 160-172	3.9	42
83	Textures and U-W-Sn-Mo signatures in hematite from the Olympic Dam Cu-U-Au-Ag deposit, South Australia: Defining the archetype for IOCG deposits. *Ore Geology Reviews*, **2017**, 91, 173-195	3.2	40
82	Feldspar evolution in the Roxby Downs Granite, host to Fe-oxide Cu-Au-(U) mineralisation at Olympic Dam, South Australia. *Ore Geology Reviews*, **2017**, 80, 838-859	3.2	40
81	Multi-stage enrichment processes for large gold-bearing ore deposits. *Ore Geology Reviews*, **2016**, 76, 268-279	3.2	39
80	Matrix effects in Pb/U measurements during LA-ICP-MS analysis of the mineral apatite. *Journal of Analytical Atomic Spectrometry*, **2016**, 31, 1206-1215	3.7	39
79	EARLY, DEEP MAGNETITE-FLUORAPATITE MINERALIZATION AT THE OLYMPIC DAM Cu-U-Au-Ag DEPOSIT, SOUTH AUSTRALIA*. *Economic Geology*, **2017**, 112, 1531-1542	4.3	37
78	Albitization and redistribution of REE and Y in IOCG systems: Insights from Moonta-Wallaroo, Yorke Peninsula, South Australia. *Lithos*, **2014**, 208-209, 178-201	2.9	37
77	Apatite at Olympic Dam, South Australia: A petrogenetic tool. *Lithos*, **2016**, 262, 470-485	2.9	37
76	Rare Earth Element Behaviour in Apatite from the Olympic Dam Cu□Au□Ag Deposit, South Australia. *Minerals (Basel, Switzerland)*, **2017**, 7, 135	2.4	34
75	Olivine-phyric basalt in the Mesoproterozoic Gawler silicic large igneous province, South Australia: Examples at the Olympic Dam Iron Oxide Cu□Au□Ag deposit and other localities. *Precambrian Research*, **2016**, 281, 185-199	3.9	31
74	Uranium and Sm isotope studies of the supergiant Olympic Dam Cu□Au□Ag deposit, South Australia. *Geochimica Et Cosmochimica Acta*, **2016**, 180, 15-32	5.5	31
73	Geology and Mineralogical Zonation of the Olympic Dam Iron Oxide Cu-U-Au-Ag Deposit, South Australia **2012**,		30

72	Ore minerals down to the nanoscale: Cu-(Fe)-sulphides from the iron oxide copper gold deposit at Olympic Dam, South Australia. *Ore Geology Reviews*, **2017**, 81, 1218-1235	3.2	29
71	Chemical and textural interpretation of late-stage coffinite and brannerite from the Olympic Dam IOCG-Ag-U deposit. *Mineralogical Magazine*, **2017**, 81, 1323-1366	1.7	29
70	Matrix-Matched Iron-Oxide Laser Ablation ICP-MS U-Pb Geochronology Using Mixed Solution Standards. *Minerals (Basel, Switzerland)*, **2016**, 6, 85	2.4	29
69	Advances and Opportunities in Ore Mineralogy. *Minerals (Basel, Switzerland)*, **2017**, 7, 233	2.4	28
68	Silicate-sulfide liquid immiscibility in modern arc basalt (Tolbachik volcano, Kamchatka): Part II. Composition, liquidus assemblage and fractionation of the silicate melt. *Chemical Geology*, **2017**, 471, 92-110	4.2	27
67	Precise geochronological constraints on the origin, setting and incorporation of ca. 1.59 Ga surficial facies into the Olympic Dam Breccia Complex, South Australia. *Precambrian Research*, **2018**, 315, 162-178	3.9	26
66	The Wirrda Well and Acropolis prospects, Gawler Craton, South Australia: Insights into evolving fluid conditions through apatite chemistry. *Journal of Geochemical Exploration*, **2017**, 181, 276-291	3.8	24
65	Focused Ion Beam and Advanced Electron Microscopy for Minerals: Insights and Outlook from Bismuth Sulphosalts. *Minerals (Basel, Switzerland)*, **2016**, 6, 112	2.4	23
64	Feldspar mineralogy and rare-earth element (re)mobilization in iron-oxide copper gold systems from South Australia: a nanoscale study. *Mineralogical Magazine*, **2018**, 82, S173-S197	1.7	22
63	210Pb and 210Po in Geological and Related Anthropogenic Materials: Implications for Their Mineralogical Distribution in Base Metal Ores. *Minerals (Basel, Switzerland)*, **2018**, 8, 211	2.4	22
62	Silician Magnetite: Si-Fe-Nanoprecipitates and Other Mineral Inclusions in Magnetite from the Olympic Dam Deposit, South Australia. *Minerals (Basel, Switzerland)*, **2019**, 9, 311	2.4	20
61	Rare Earth Element Fluorocarbonate Minerals from the Olympic Dam Cu-U-Au-Ag Deposit, South Australia. *Minerals (Basel, Switzerland)*, **2017**, 7, 202	2.4	20
60	Short-Range Stacking Disorder in Mixed-Layer Compounds: A HAADF STEM Study of Bastnäsite-Parisite Intergrowths. *Minerals (Basel, Switzerland)*, **2017**, 7, 227	2.4	18
59	Linking Olympic Dam and the Cariewerloo Basin: Was a sedimentary basin involved in formation of the world's largest uranium deposit?. *Precambrian Research*, **2017**, 300, 168-180	3.9	18
58	Defining IOCG signatures through compositional data analysis: A case study of lithogeochemical zoning from the Olympic Dam deposit, South Australia. *Ore Geology Reviews*, **2019**, 105, 86-101	3.2	18
57	Defining early stages of IOCG systems: evidence from iron oxides in the outer shell of the Olympic Dam deposit, South Australia. *Mineralium Deposita*, **2020**, 55, 429-452	4.8	18
56	Chemical zoning and lattice distortion in uraninite from Olympic Dam, South Australia. *American Mineralogist*, **2016**, 101, 2351-2354	2.9	17
55	Characteristics, origin and significance of Mesoproterozoic bedded clastic facies at the Olympic Dam Cu-U-Au-Ag deposit, South Australia. *Precambrian Research*, **2016**, 276, 85-100	3.9	17

54	Petrography and trace element signatures of iron-oxides in deposits from the Middleback Ranges, South Australia: From banded iron formation to ore. *Ore Geology Reviews*, **2018**, 93, 337-360	3.2	15
53	Numerical Modeling of REE Fractionation Patterns in Fluorapatite from the Olympic Dam Deposit (South Australia). *Minerals (Basel, Switzerland)*, **2018**, 8, 342	2.4	15
52	Hematite geochemistry and geochronology resolve genetic and temporal links among iron-oxide copper gold systems, Olympic Dam district, South Australia. *Precambrian Research*, **2019**, 335, 105480	3.9	13
51	Detection of Trace Elements/Isotopes in Olympic Dam Copper Concentrates by nanoSIMS. *Minerals (Basel, Switzerland)*, **2019**, 9, 336	2.4	13
50	Uptake of trace elements by baryte during copper ore processing: A case study from Olympic Dam, South Australia. *Minerals Engineering*, **2019**, 135, 83-94	4.9	13
49	Discrimination and Variance Structure of Trace Element Signatures in Fe-Oxides: A Case Study of BIF-Mineralisation from the Middleback Ranges, South Australia. *Mathematical Geosciences*, **2018**, 50, 381-415	2.5	13
48	Replacement of Uraninite By BorniteViaCoupled Dissolution-Reprecipitation: Evidence From Texture and Microstructure. *Canadian Mineralogist*, **2016**, 54, 1369-1383	0.7	13
47	Postmagmatic magnetite□patite assemblage in mafic intrusions: a case study of dolerite at Olympic Dam, South Australia. *Contributions To Mineralogy and Petrology*, **2016**, 171, 1	3.5	13
46	OPENING THE MAGMATIC-HYDROTHERMAL WINDOW: HIGH-PRECISION U-Pb GEOCHRONOLOGY OF THE MESOPROTEROZOIC OLYMPIC DAM Cu-U-Au-Ag DEPOSIT, SOUTH AUSTRALIA. *Economic Geology*, **2020**, 115, 1855-1870	4.3	12
45	Rare earth element geochemistry of feldspars: examples from Fe-oxide Cu-Au systems in the Olympic Cu-Au Province, South Australia. *Mineralogy and Petrology*, **2018**, 112, 145-172	1.6	11
44	Mineralization-alteration footprints in the Olympic Dam IOCG district, South Australia: The Acropolis prospect. *Journal of Geochemical Exploration*, **2019**, 205, 106333	3.8	11
43	Zircon at the Nanoscale Records Metasomatic Processes Leading to Large Magmatic□Hydrothermal Ore Systems. *Minerals (Basel, Switzerland)*, **2019**, 9, 364	2.4	11
42	Radionuclide distributions in Olympic Dam copper concentrates: The significance of minor hosts, incorporation mechanisms, and the role of mineral surfaces. *Minerals Engineering*, **2020**, 148, 106176	4.9	11
41	REE-, Sr-, Ca-aluminum-phosphate-sulfate minerals of the alunite supergroup and their role as hosts for radionuclides. *American Mineralogist*, **2019**, 104, 1806-1819	2.9	11
40	Rare Earth Element Phosphate Minerals from the Olympic Dam Cu-U-Au-Ag Deposit, South Australia: Recognizing Temporal-Spatial Controls On Ree Mineralogy in an Evolved IOCG System. *Canadian Mineralogist*, **2019**, 57, 3-24	0.7	10
39	Crystal chemistry of titanite from the Roxby Downs Granite, South Australia: insights into petrogenesis, subsolidus evolution and hydrothermal alteration. *Contributions To Mineralogy and Petrology*, **2019**, 174, 1	3.5	10
38	Multivariate Statistical Analysis of Trace Elements in Pyrite: Prediction, Bias and Artefacts in Defining Mineral Signatures. *Minerals (Basel, Switzerland)*, **2020**, 10, 61	2.4	10
37	Iron-oxides constrain BIF evolution in terranes with protracted geological histories: The Iron Count prospect, Middleback Ranges, South Australia. *Lithos*, **2019**, 324-325, 20-38	2.9	10

36	Tectonothermal events in the Olympic IOCG Province constrained by apatite and REE-phosphate geochronology. *Australian Journal of Earth Sciences*, **2018**, 65, 643-659	1.4	10
35	Radionuclide-bearing minerals in Olympic Dam copper concentrates. *Hydrometallurgy*, **2019**, 190, 105153	4	9
34	In situ spatial distribution mapping of radionuclides in minerals by nanoSIMS. *Geochemistry: Exploration, Environment, Analysis*, **2019**, 19, 245-254	1.8	9
33	Rapid, competitive radium uptake in strontium, barium, and lead sulfates during sulfuric acid leaching. *Applied Geochemistry*, **2020**, 115, 104549	3.5	8
32	Understanding the mobility and retention of uranium and its daughter products. *Journal of Hazardous Materials*, **2021**, 410, 124553	12.8	7
31	Mineralogy of Zirconium in Iron-Oxides: A Micron- to Nanoscale Study of Hematite Ore from Peculiar Knob, South Australia. *Minerals (Basel, Switzerland)*, **2019**, 9, 244	2.4	6
30	Copper-Arsenic Nanoparticles in Hematite: Fingerprinting Fluid-Mineral Interaction. *Minerals (Basel, Switzerland)*, **2019**, 9, 388	2.4	6
29	Effects of hydrothermal alteration on mafic lithologies at the Olympic Dam Cu-U-Au-Ag deposit. *Precambrian Research*, **2017**, 292, 305-322	3.9	5
28	Petrographic and geochronological constraints on the granitic basement to the Middleback Ranges, South Australia. *Precambrian Research*, **2019**, 324, 170-193	3.9	5
27	Geology of the Acropolis prospect, South Australia, constrained by high-precision CA-TIMS ages. *Australian Journal of Earth Sciences*, **2020**, 67, 699-716	1.4	5
26	The dynamic uptake of lead and its radionuclides by natural and synthetic aluminium-phosphate-sulfates. *Minerals Engineering*, **2021**, 160, 106659	4.9	5
25	~1760 Ma magnetite-bearing protoliths in the Olympic Dam deposit, South Australia: Implications for ore genesis and regional metallogeny. *Ore Geology Reviews*, **2020**, 118, 103337	3.2	4
24	Selective radionuclide co-sorption onto natural minerals in environmental and anthropogenic conditions. *Journal of Hazardous Materials*, **2021**, 409, 124989	12.8	4
23	Staged formation of the supergiant Olympic Dam uranium deposit, Australia. *Geology*,	5	4
22	Synthesis of U-Pb doped hematite using a hydrated ferric oxide approach. *Journal of Crystal Growth* , **2019**, 513, 48-57	1.6	3
21	Trace-element remobilisation from W-Sn-U-Pb zoned hematite: Nanoscale insights into a mineral geochronometer behaviour during interaction with fluids. *Mineralogical Magazine*, **2020**, 84, 502-516	1.7	3
20	Carbonates at the supergiant Olympic Dam Cu-U-Au-Ag deposit, South Australia. Part 1: Distribution, textures, associations and stable isotope (C, O) signatures. *Ore Geology Reviews*, **2020**, 126, 103775	3.2	3
19	The Mixed-Layer Structures of Ikunolite, Laitakarite, Joséite-B and Joséite-A. *Minerals (Basel, Switzerland)*, **2021**, 11, 920	2.4	3

18	Intermobility of barium, strontium, and lead in chloride and sulfate leach solutions. *Geochemical Transactions*, **2019**, 20, 4	3	2
17	Carbonates at the supergiant Olympic Dam Cu-U-Au-Ag deposit, South Australia part 2: Sm-Nd, Lu-Hf and Sr-Pb isotope constraints on the chronology of carbonate deposition. *Ore Geology Reviews*, **2020**, 140, 103745	3.2	2
16	The fluorine link between a supergiant ore deposit and a silicic large igneous province: REPLY. *Geology*, **2012**, 40, e276-e276	5	2
15	Insights into magma histories through silicate-oxide crystal clusters: Linking the Hiltaba Suite intrusive rocks to the Gawler Range Volcanics, Gawler Craton, South Australia. *Precambrian Research*, **2019**, 321, 103-122	3.9	2
14	A Synthetic Haematite Reference Material for LA-ICP-MS U-Pb Geochronology and Application to Iron Oxide-Cu-Au Systems. *Geostandards and Geoanalytical Research*, **2021**, 45, 143-159	3.6	2
13	Bi8Te3, the 11-Atom Layer Member of the Tetradymite Homologous Series. *Minerals (Basel, Switzerland)*, **2021**, 11, 980	2.4	2
12	A Mineralisation Age for the Sediment-Hosted Blackbush Uranium Prospect, North-Eastern Eyre Peninsula, South Australia. *Minerals (Basel, Switzerland)*, **2020**, 10, 191	2.4	1
11	From magma to mush to lava: Crystal history of voluminous felsic lavas in the Gawler Range Volcanics, South Australia. *Lithos*, **2019**, 346-347, 105148	2.9	1
10	Episodic mafic magmatism in the Eyre Peninsula: Defining syn- and post-depositional BIF environments for iron deposits in the Middleback Ranges, South Australia. *Precambrian Research*, **2020**, 337, 105535	3.9	1
9	Localised solution environments drive radionuclide fractionation in uraninite. *Journal of Hazardous Materials*, **2021**, 412, 125192	12.8	1
8	Associations between zircon and Fe-Ti oxides in Hiltaba event magmatic rocks, South Australia: atomic- or pluton-scale processes?. *Australian Journal of Earth Sciences*, **2020**, 67, 201-220	1.4	1
7	Nanomineralogy of hydrothermal magnetite from Acropolis, South Australia: Genetic implications for iron-oxide copper gold mineralization. *American Mineralogist*, **2021**, 106, 1273-1293	2.9	1
6	Nanoscale intergrowths in the bastnäsite-synchysite series record transition toward thermodynamic equilibrium. *MRS Bulletin*,1	3.2	1
5	Pb-isotope ratios and the petrogenesis of the Tunkillia Suite, Gawler Craton. *Australian Journal of Earth Sciences*,1-21	1.4	0
4	Skarn-style alteration in Proterozoic metasedimentary protoliths hosting IOCG mineralization: the Island Dam Prospect, South Australia. *Mineralium Deposita*,1	4.8	0
3	Metallic-Pb nanospheres in zircon from the Challenger Au deposit, South Australia: probing metamorphic and ore formation histories. *Mineralogical Magazine*,1-24	1.7	
2	Micron- to nanoscale characterisation and U-Pb geochronology of zircon from granites of the Samphire Pluton, South Australia. *Precambrian Research*, **2020**, 350, 105924	3.9	
1	Development and Application of Synthetic Hematite Reference Material for U-Pb Geochronology. *Microscopy and Microanalysis*, **2021**, 27, 2742-2745	0.5	