

William D A Rickard

List of Publications by Year in descending order

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103
papers

6,001
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76294

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all docs

110
docs citations

110
times ranked

4409
citing authors

#	ARTICLE	IF	CITATIONS
1	Effects of waste glass sand on the thermal behavior and strength of fly ash and GGBS based alkali activated mortar exposed to elevated temperature. <i>Construction and Building Materials</i> , 2022, 316, 125864.	3.2	14
2	Facile co-synthesis and utilization of ultrafine and highly active PrBa _{0.8} Ca _{0.2} Co ₂ O ₅ +Î-Gd _{0.2} Ce _{0.8} O _{1.9} composite cathodes for solid oxide fuel cells. <i>Electrochimica Acta</i> , 2022, 403, 139673.	2.6	15
3	Standardizing Spatial Reconstruction Parameters for the Atom Probe Analysis of Common Minerals. <i>Microscopy and Microanalysis</i> , 2022, 28, 1221-1230.	0.2	11
4	Microstructural and Chemical Investigations of Presolar Silicates from Diverse Stellar Environments. <i>Astrophysical Journal</i> , 2022, 925, 110.	1.6	4
5	Ion-transfer electrochemistry at arrays of nanoscale interfaces between two immiscible electrolyte solutions arranged in hexagonal format. <i>Journal of Electroanalytical Chemistry</i> , 2022, 909, 116113.	1.9	3
6	Dislocations in minerals: Fast-diffusion pathways or trace-element traps?. <i>Earth and Planetary Science Letters</i> , 2022, 584, 117517.	1.8	12
7	Variability of sulfur isotopes and trace metals in pyrites from the upper oceanic crust of the South China Sea basin, implications for sulfur and trace metal cycling in subsurface. <i>Chemical Geology</i> , 2022, 606, 120982.	1.4	5
8	A Review on Geopolymer Technology for Lunar Base Construction. <i>Materials</i> , 2022, 15, 4516.	1.3	11
9	Developing Atom Probe Tomography of Phyllosilicates in Preparation for Extra-Terrestrial Sample Return. <i>Geostandards and Geoanalytical Research</i> , 2021, 45, 427-441.	1.7	5
10	A new kind of invisible gold in pyrite hosted in deformation-related dislocations. <i>Geology</i> , 2021, 49, 1225-1229.	2.0	30
11	Lunar samples record an impact 4.2 billion years ago that may have formed the Serenitatis Basin. <i>Communications Earth & Environment</i> , 2021, 2, .	2.6	9
12	Disorientation control on trace element segregation in fluid-affected low-angle boundaries in olivine. <i>Contributions To Mineralogy and Petrology</i> , 2021, 176, 1.	1.2	10
13	Xenotime at the Nanoscale: U-Pb Geochronology and Optimisation of Analyses by Atom Probe Tomography. <i>Geostandards and Geoanalytical Research</i> , 2021, 45, 443-456.	1.7	10
14	Pre-nucleation geochemical heterogeneity within glassy anatectic inclusions and the role of water in glass preservation. <i>Contributions To Mineralogy and Petrology</i> , 2021, 176, 1.	1.2	8
15	A new method for dating impact events – Thermal dependency on nanoscale Pb mobility in monazite shock twins. <i>Geochimica Et Cosmochimica Acta</i> , 2021, 314, 381-396.	1.6	13
16	Rapid prototyping of grating magneto-optical traps using a focused ion beam. <i>Optics Express</i> , 2021, 29, 37733.	1.7	1
17	Solar wind contributions to Earth's oceans. <i>Nature Astronomy</i> , 2021, 5, 1275-1285.	4.2	22
18	Substructural phenomena in Cu wire bond after laser assisted manufacturing in electronic packaging. <i>Materials Letters</i> , 2020, 259, 126833.	1.3	1

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19	Enhancing chalcopryrite leaching by tetrachloroethylene-assisted removal of sulphur passivation and the mechanism of jarosite formation. <i>Hydrometallurgy</i> , 2020, 191, 105192.	1.8	39
20	Aseismic Refinement of Orogenic Gold Systems. <i>Economic Geology</i> , 2020, 115, 33-50.	1.8	38
21	Life on the edge: Microbial biomineralization in an arsenic- and lead-rich deep-sea hydrothermal vent. <i>Chemical Geology</i> , 2020, 533, 119438.	1.4	10
22	Novel Applications of FIB-SEM-Based ToF-SIMS in Atom Probe Tomography Workflows. <i>Microscopy and Microanalysis</i> , 2020, 26, 750-757.	0.2	32
23	Atom Probe Tomography: Development and Application to the Geosciences. <i>Geostandards and Geoanalytical Research</i> , 2020, 44, 5-50.	1.7	84
24	Volcanic SiO ₂ -cristobalite: A natural product of chemical vapor deposition. <i>American Mineralogist</i> , 2020, 105, 510-524.	0.9	20
25	Nanoscale Isotopic Dating of Monazite. <i>Geostandards and Geoanalytical Research</i> , 2020, 44, 637-652.	1.7	15
26	Time-resolved, defect-hosted, trace element mobility in deformed Witwatersrand pyrite. <i>Geoscience Frontiers</i> , 2019, 10, 55-63.	4.3	44
27	Positive Effect of Incorporating Er _{0.4} Bi _{1.6} O ₃ on the Performance and Stability of La ₂ NiO ₄ ⁺ Cathode. <i>Journal of the Electrochemical Society</i> , 2019, 166, F796-F804.	1.3	17
28	Hall-Petch Slope in Ultrafine Grained Al-Mg Alloys. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2019, 50, 4047-4057.	1.1	11
29	Understanding the Chemical and Structural Properties of Multiple-Cation Mixed Halide Perovskite. <i>Journal of Physical Chemistry C</i> , 2019, 123, 26718-26726.	1.5	14
30	Direct Observation of Nanoparticulate Goethite Recrystallization by Atom Probe Analysis of Isotopic Tracers. <i>Environmental Science & Technology</i> , 2019, 53, 13126-13135.	4.6	19
31	Low Stress Abrasion-Corrosion of High-Cr White Cast Iron: Combined Effects of Particle Angularity and Chloride Ions. <i>Journal of the Electrochemical Society</i> , 2019, 166, C382-C393.	1.3	1
32	Analysis of Natural Rutile (TiO ₂) by Laser-assisted Atom Probe Tomography. <i>Microscopy and Microanalysis</i> , 2019, 25, 539-546.	0.2	16
33	Dolomite: a low cost thermochemical energy storage material. <i>Journal of Materials Chemistry A</i> , 2019, 7, 1206-1215.	5.2	50
34	Nanoscale constraints on the shock-induced transformation of zircon to reidite. <i>Chemical Geology</i> , 2019, 507, 85-95.	1.4	19
35	A FIB-STEM Study of Strontium Segregation and Interface Formation of Directly Assembled La _{0.6} Sr _{0.4} Co _{0.2} Fe _{0.8} O _{3-δ} Cathode on Y ₂ O ₃ -ZrO ₂ Electrolyte of Solid Oxide Fuel Cells. <i>Journal of the Electrochemical Society</i> , 2018, 165, F417-F429.	1.3	41
36	Nanoscale distribution of Pb in monazite revealed by atom probe microscopy. <i>Chemical Geology</i> , 2018, 479, 251-258.	1.4	39

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37	Effect of Pd doping on the activity and stability of directly assembled La _{0.95} Co _{0.19} Fe _{0.76} Pd _{0.05} O _{3-$\hat{\nu}$} cathodes of solid oxide fuel cells. <i>Solid State Ionics</i> , 2018, 316, 38-46.	1.3	16
38	Nb and Pd co-doped La _{0.57} Sr _{0.38} Co _{0.19} Fe _{0.665} Nb _{0.095} Pd _{0.05} O _{3-$\hat{\nu}$} as a stable, high performance electrode for barrier-layer-free Y ₂ O ₃ -ZrO ₂ electrolyte of solid oxide fuel cells. <i>Journal of Power Sources</i> , 2018, 378, 433-442.	4.0	48
39	Defining the Potential of Nanoscale Re $\hat{\nu}$ O _s Isotope Systematics Using Atom Probe Microscopy. <i>Geostandards and Geoanalytical Research</i> , 2018, 42, 279-299.	1.7	13
40	Assessment of a spodumene ore by advanced analytical and mass spectrometry techniques to determine its amenability to processing for the extraction of lithium. <i>Minerals Engineering</i> , 2018, 119, 137-148.	1.8	41
41	Suppressed Sr segregation and performance of directly assembled La _{0.6} Sr _{0.4} Co _{0.2} Fe _{0.8} O _{3-$\hat{\nu}$} oxygen electrode on Y ₂ O ₃ -ZrO ₂ electrolyte of solid oxide electrolysis cells. <i>Journal of Power Sources</i> , 2018, 384, 125-135.	4.0	69
42	Applications of advanced analytical and mass spectrometry techniques to the characterisation of micaceous lithium-bearing ores. <i>Minerals Engineering</i> , 2018, 116, 182-195.	1.8	19
43	Generation of amorphous carbon and crystallographic texture during low-temperature subseismic slip in calcite fault gouge. <i>Geology</i> , 2018, 46, 163-166.	2.0	15
44	Organic matter network in post-mature Marcellus Shale: Effects on petrophysical properties. <i>AAPG Bulletin</i> , 2018, 102, 2305-2332.	0.7	28
45	Active, durable bismuth oxide-manganite composite oxygen electrodes: Interface formation induced by cathodic polarization. <i>Journal of Power Sources</i> , 2018, 397, 16-24.	4.0	15
46	High performance anode with dendritic porous structure for low temperature solid oxide fuel cells. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 17849-17856.	3.8	18
47	Microstructural constraints on the mechanisms of the transformation to reidite in naturally shocked zircon. <i>Contributions To Mineralogy and Petrology</i> , 2017, 172, 1.	1.2	64
48	Highly Stable Sr $\hat{\nu}$ Free Cobaltite $\hat{\nu}$ Based Perovskite Cathodes Directly Assembled on a Barrier $\hat{\nu}$ Layer $\hat{\nu}$ Free Y ₂ O ₃ -ZrO ₂ Electrolyte of Solid Oxide Fuel Cells. <i>ChemSusChem</i> , 2017, 10, 993-1003.	3.6	43
49	Atom probe microscopy of zinc isotopic enrichment in ZnO nanorods. <i>AIP Advances</i> , 2017, 7, .	0.6	7
50	Crystallography of refractory metal nuggets in carbonaceous chondrites: A transmission Kikuchi diffraction approach. <i>Geochimica Et Cosmochimica Acta</i> , 2017, 216, 42-60.	1.6	7
51	Palaeobiology of red and white blood cell-like structures, collagen and cholesterol in an ichthyosaur bone. <i>Scientific Reports</i> , 2017, 7, 13776.	1.6	31
52	Nebula sulfidation and evidence for migration of $\hat{\nu}$ free-floating $\hat{\nu}$ refractory metal nuggets revealed by atom probe microscopy. <i>Geology</i> , 2017, 45, 847-850.	2.0	13
53	Optimising Ambient Setting Bayer Derived Fly Ash Geopolymers. <i>Materials</i> , 2016, 9, 392.	1.3	17
54	In Situ Elevated Temperature Testing of Fly Ash Based Geopolymer Composites. <i>Materials</i> , 2016, 9, 445.	1.3	23

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55	Correlative Analysis using FIB-ToF-SIMS and Atom Probe Tomography on Geological Materials. <i>Microscopy and Microanalysis</i> , 2016, 22, 684-685.	0.2	2
56	Nanogeochronology of discordant zircon measured by atom probe microscopy of Pb-enriched dislocation loops. <i>Science Advances</i> , 2016, 2, e1601318.	4.7	86
57	Acoustic emission and microstructural changes in fly ash geopolymer concretes exposed to simulated fire. <i>Materials and Structures/Materiaux Et Constructions</i> , 2016, 49, 5243-5254.	1.3	29
58	Nanoscale gold clusters in arsenopyrite controlled by growth rate not concentration: Evidence from atom probe microscopy. <i>American Mineralogist</i> , 2016, 101, 1916-1919.	0.9	94
59	Mechanisms of deformation-induced trace element migration in zircon resolved by atom probe and correlative microscopy. <i>Geochimica Et Cosmochimica Acta</i> , 2016, 195, 158-170.	1.6	64
60	Smart utilization of cobaltite-based double perovskite cathodes on barrier-layer-free zirconia electrolyte of solid oxide fuel cells. <i>Journal of Materials Chemistry A</i> , 2016, 4, 19019-19025.	5.2	51
61	Polarization-Induced Interface and Sr Segregation of $\text{La}_{0.6}\text{Sr}_{0.4}\text{Co}_{0.2}\text{Fe}_{0.8}\text{O}_{3-\delta}$ Electrodes on Y_{2}O_{3} -ZrO ₂ Electrolyte of Solid Oxide Fuel Cells. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 31729-31737.	4.0	82
62	Direct application of cobaltite-based perovskite cathodes on the yttria-stabilized zirconia electrolyte for intermediate temperature solid oxide fuel cells. <i>Journal of Materials Chemistry A</i> , 2016, 4, 17678-17685.	5.2	70
63	Visualization of Diffusion within Nanoarrays. <i>Analytical Chemistry</i> , 2016, 88, 6689-6695.	3.2	20
64	The effects of particle angularity on low-stress three-body abrasion-corrosion of 316L stainless steel. <i>Corrosion Science</i> , 2016, 111, 690-702.	3.0	20
65	In-situ thermo-mechanical testing of fly ash geopolymer concretes made with quartz and expanded clay aggregates. <i>Cement and Concrete Research</i> , 2016, 80, 33-43.	4.6	81
66	Impact of activator type on the immobilisation of lead in fly ash-based geopolymer. <i>Journal of Hazardous Materials</i> , 2016, 305, 59-66.	6.5	76
67	The effect of organic and inorganic fibres on the mechanical and thermal properties of aluminate activated geopolymers. <i>Composites Part B: Engineering</i> , 2015, 76, 218-228.	5.9	122
68	Precambrian reidite discovered in shocked zircon from the Stac Fada impactite, Scotland. <i>Geology</i> , 2015, 43, 899-902.	2.0	47
69	Thermally Induced Microstructural Changes in Fly Ash Geopolymers: Experimental Results and Proposed Model. <i>Journal of the American Ceramic Society</i> , 2015, 98, 929-939.	1.9	74
70	Effect of Volatile Boron Species on the Electrocatalytic Activity of Cathodes of Solid Oxide Fuel Cells. <i>Journal of the Electrochemical Society</i> , 2014, 161, F1163-F1170.	1.3	17
71	Other Potential Applications for Alkali-Activated Materials. <i>RILEM State-of-the-Art Reports</i> , 2014, , 339-379.	0.3	11
72	Strategies to control the high temperature shrinkage of fly ash based geopolymers. <i>Thermochimica Acta</i> , 2014, 580, 20-27.	1.2	59

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73	Performance of solid and cellular structured fly ash geopolymers exposed to a simulated fire. Cement and Concrete Composites, 2014, 48, 75-82.	4.6	97
74	Room temperature alkali activation of fly ash: The effect of Na ₂ O/SiO ₂ ratio. Construction and Building Materials, 2014, 69, 262-270.	3.2	98
75	Three-dimensional quantification of pore structure in coal ash-based geopolymer using conventional electron tomography. Construction and Building Materials, 2014, 52, 221-226.	3.2	32
76	A comparison between different foaming methods for the synthesis of light weight geopolymers. Ceramics International, 2014, 40, 13891-13902.	2.3	228
77	Beneficiation of Collie fly ash for synthesis of geopolymer: Part 1 – Beneficiation. Fuel, 2013, 106, 569-575.	3.4	25
78	Performance of fibre reinforced, low density metakaolin geopolymers under simulated fire conditions. Applied Clay Science, 2013, 73, 71-77.	2.6	156
79	The effect of pre-treatment on the thermal performance of fly ash geopolymers. Thermochimica Acta, 2013, 573, 130-137.	1.2	14
80	Bayer-geopolymers: An exploration of synergy between the alumina and geopolymer industries. Cement and Concrete Composites, 2013, 41, 29-33.	4.6	67
81	High temperature behaviour of ambient cured alkali-activated materials based on ladle slag. Cement and Concrete Research, 2013, 43, 51-61.	4.6	101
82	Characterization of various fly ashes for preparation of geopolymers with advanced applications. Advanced Powder Technology, 2013, 24, 495-498.	2.0	40
83	Thermal analysis of geopolymer pastes synthesised from five fly ashes of variable composition. Journal of Non-Crystalline Solids, 2012, 358, 1830-1839.	1.5	200
84	Corrosion and Damage Resistant Nitride Coatings for Steel. Journal of the American Ceramic Society, 2012, 95, 2997-3004.	1.9	7
85	Thermal properties of spray-coated geopolymer-type compositions. Journal of Thermal Analysis and Calorimetry, 2012, 107, 287-292.	2.0	51
86	Corrosion behaviour of nanocomposite TiSiN coatings on steel substrates. Corrosion Science, 2011, 53, 3678-3687.	3.0	46
87	Preparation and thermal properties of fire resistant metakaolin-based geopolymer-type coatings. Journal of Non-Crystalline Solids, 2011, 357, 1399-1404.	1.5	185
88	Quantification of the Extent of Reaction of Metakaolin-Based Geopolymers Using X-Ray Diffraction, Scanning Electron Microscopy, and Energy-Dispersive Spectroscopy. Journal of the American Ceramic Society, 2011, 94, 2663-2670.	1.9	101
89	Assessing the suitability of three Australian fly ashes as an aluminosilicate source for geopolymers in high temperature applications. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2011, 528, 3390-3397.	2.6	193
90	Costs and carbon emissions for geopolymer pastes in comparison to ordinary portland cement. Journal of Cleaner Production, 2011, 19, 1080-1090.	4.6	1,221

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91	Fly ash based geopolymer thin coatings on metal substrates and its thermal evaluation. Journal of Hazardous Materials, 2010, 180, 748-752.	6.5	120
92	Determination of the reactive component of fly ashes for geopolymer production using XRF and XRD. Fuel, 2010, 89, 3683-3692.	3.4	155
93	Thermal Character of Geopolymers Synthesized from Class F Fly Ash Containing High Concentrations of Iron and Quartz. International Journal of Applied Ceramic Technology, 2010, 7, 81-88.	1.1	126
94	Thermal properties of geopolymers. , 2009, , 315-342.		24
95	Determining the Reactivity of a Fly Ash for Production of Geopolymer. Journal of the American Ceramic Society, 2009, 92, 881-887.	1.9	138
96	Preparation of metakaolin based geopolymer coatings on metal substrates as thermal barriers. Applied Clay Science, 2009, 46, 265-270.	2.6	164
97	Thermo-mechanical and microstructural characterisation of sodium-poly(sialate-siloxo) (Na-PSS) geopolymers. Journal of Materials Science, 2007, 42, 3117-3123.	1.7	101
98	Mineralogy of Al-substituted goethites. Powder Diffraction, 2006, 21, 289-299.	0.4	12
99	Determination of amorphous phase levels in Portland cement clinker. Powder Diffraction, 2002, 17, 178-185.	0.4	59
100	Characterization of Ceramic Materials with BIGDIFF: A Synchrotron Radiation Debye-Scherrer Powder Diffractometer. Journal of the American Ceramic Society, 1997, 80, 1373-1381.	1.9	9
101	Assessment of Residual Strain in Zirconia-Toughened Alumina Using Neutron Diffraction. Journal of the American Ceramic Society, 1993, 76, 2133-2135.	1.9	9
102	The Influence of Short Fibres and Foaming Agents on the Physical and Thermal Behaviour of Geopolymer Composites. Advances in Science and Technology, 0, , .	0.2	13
103	Three-body abrasion-corrosion behaviour of as printed and solution annealed additively manufactured 316L stainless steel. Corrosion, 0, , .	0.5	0