Rupert J Myers

List of Publications by Citations

42 papers	2,606 citations	23 h-index	44 g-index
44 ext. papers	3,476 ext. citations	7.2 avg, IF	5.63 L-index

#	Paper	IF	Citations
42	Cemdata18: A chemical thermodynamic database for hydrated Portland cements and alkali-activated materials. *Cement and Concrete Research*, **2019**, 115, 472-506	10.3	303
41	X-ray microtomography shows pore structure and tortuosity in alkali-activated binders. *Cement and Concrete Research*, **2012**, 42, 855-864	10.3	288
40	Generalized structural description of calcium-sodium aluminosilicate hydrate gels: the cross-linked substituted tobermorite model. *Langmuir*, **2013**, 29, 5294-306	4	271
39	MgO content of slag controls phase evolution and structural changes induced by accelerated carbonation in alkali-activated binders. *Cement and Concrete Research*, **2014**, 57, 33-43	10.3	242
38	Effect of temperature and aluminium on calcium (alumino)silicate hydrate chemistry under equilibrium conditions. *Cement and Concrete Research*, **2015**, 68, 83-93	10.3	165
37	A thermodynamic model for C-(N-)A-S-H gel: CNASH_ss. Derivation and validation. *Cement and Concrete Research*, **2014**, 66, 27-47	10.3	122
36	Role of carbonates in the chemical evolution of sodium carbonate-activated slag binders. *Materials and Structures/Materiaux Et Constructions*, **2015**, 48, 517-529	3.4	121
35	The Role of Al in Cross-Linking of Alkali-Activated Slag Cements. *Journal of the American Ceramic Society*, **2015**, 98, 996-1004	3.8	119
34	Thermodynamic modelling of alkali-activated slag cements. *Applied Geochemistry*, **2015**, 61, 233-247	3.5	111
33	Phase diagrams for alkali-activated slag binders. *Cement and Concrete Research*, **2017**, 95, 30-38	10.3	96
32	Densification of the interlayer spacing governs the nanomechanical properties of calcium-silicate-hydrate. *Scientific Reports*, **2017**, 7, 10986	4.9	77
31	Aluminum-induced dreierketten chain cross-links increase the mechanical properties of nanocrystalline calcium aluminosilicate hydrate. *Scientific Reports*, **2017**, 7, 44032	4.9	75
30	Role of Adsorption Phenomena in Cubic Tricalcium Aluminate Dissolution. *Langmuir*, **2017**, 33, 45-55	4	63
29	The chemistry and structure of calcium (alumino) silicate hydrate: A study by XANES, ptychographic imaging, and wide- and small-angle scattering. *Cement and Concrete Research*, **2019**, 115, 367-378	10.3	59
28	Effects of CO2 and temperature on the structure and chemistry of C(A)SH investigated by Raman spectroscopy. *RSC Advances*, **2017**, 7, 48925-48933	3.7	46
27	Synchrotron X-ray nanotomographic and spectromicroscopic study of the tricalcium aluminate hydration in the presence of gypsum. *Cement and Concrete Research*, **2018**, 111, 130-137	10.3	45
26	Environmental Impacts of Alternative Cement Binders. *Environmental Science & Technology*, **2020**, 54, 677-686	10.3	39

25	Implications of Emerging Vehicle Technologies on Rare Earth Supply and Demand in the United States. *Resources*, **2018**, 7, 9	3.7	38
24	Composition-solubility-structure relationships in calcium (alkali) aluminosilicate hydrate (C-(N,K-)A-S-H). *Dalton Transactions*, **2015**, 44, 13530-44	4.3	37
23	Solution chemistry of cubic and orthorhombic tricalcium aluminate hydration. *Cement and Concrete Research*, **2017**, 100, 176-185	10.3	34
22	The sponge effect and carbon emission mitigation potentials of the global cement cycle. *Nature Communications*, **2020**, 11, 3777	17.4	31
21	Nanostructural characterization of geopolymers by advanced beamline techniques. *Cement and Concrete Composites*, **2013**, 36, 56-64	8.6	28
20	Nullius in Verba1: Advancing Data Transparency in Industrial Ecology. *Journal of Industrial Ecology*, **2018**, 22, 6-17	7.2	26
19	Machine Learning for Sustainable Structures: A Call for Data. *Structures*, **2019**, 19, 1-4	3.4	22
18	Analysis of Barriers to Transitioning from a Linear to a Circular Economy for End of Life Materials: A Case Study for Waste Feathers. *Sustainability*, **2020**, 12, 1725	3.6	19
17	Methodology for pH measurement in high alkali cementitious systems. *Cement and Concrete Research*, **2020**, 135, 106122	10.3	14
16	The pH of Aqueous NaOH/KOH Solutions: A Critical and Non-trivial Parameter for Electrocatalysis. *ACS Energy Letters*,3567-3571	20.1	14
15	Ca L2,3-edge near edge X-ray absorption fine structure of tricalcium aluminate, gypsum, and calcium (sulfo)aluminate hydrates. *American Mineralogist*, **2017**, 102, 900-908	2.9	13
14	Understanding the sulfate attack of Portland cement-based materials exposed to applied electric fields: Mineralogical alteration and migration behavior of ionic species. *Cement and Concrete Composites*, **2020**, 111, 103630	8.6	13
13	YSTAFDB, a unified database of material stocks and flows for sustainability science. *Scientific Data*, **2019**, 6, 84	8.2	12
12	Unified Materials Information System (UMIS): An Integrated Material Stocks and Flows Data Structure. *Journal of Industrial Ecology*, **2019**, 23, 222-240	7.2	11
11	A research agenda on systems approaches to infrastructure. *Civil Engineering and Environmental Systems*, **2020**, 37, 214-233	2.1	10
10	Decarbonizing the cementitious materials cycle: A whole-systems review of measures to decarbonize the cement supply chain in the UK and European contexts. *Journal of Industrial Ecology* , **2021**, 25, 359-376	7.2	10
9	Effect of Gypsum on the Early Hydration of Cubic and Na-Doped Orthorhombic Tricalcium Aluminate. *Materials*, **2018**, 11,	3.5	9
8	Achieving net zero greenhouse gas emissions in the cement industry via value chain mitigation strategies. *One Earth*, **2021**, 4, 1398-1411	8.1	9

7	A Roadmap for Production of Cement and Concrete with Low-CO2 Emissions. *Waste and Biomass Valorization*, **2021**, 12, 4745-4775	3.2	6
6	Log Mean Divisia Index Decomposition Analysis of the Demand for Building Materials: Application to Concrete, Dwellings, and the U.K. *Environmental Science & Technology*, **2021**, 55, 2767-2778	10.3	4
5	A Database for the Extraction, Trade, and Use of Sand and Gravel. *Resources*, **2022**, 11, 38	3.7	1
4	Permeability is the Critical Factor Governing the Life Cycle Environmental Performance of Drinking Water Treatment Using Living Filtration Membranes. *Environmental Science & Technology*, **2020**, 54, 7651-7658	10.3	0
3	Ramifications of Indian vehicle scrapping policy across the mobility sector. *Resources, Conservation and Recycling*, **2021**, 174, 105845	11.9	0
2	Retraction: Morley et al. A Database for the Extraction, Trade, and Use of Sand and Gravel. Resources 2022, 11, 38. *Resources*, **2022**, 11, 50	3.7	0
1	Reply to a discussion of ‘a research agenda on systems approaches to infrastructure’ by david elms. *Civil Engineering and Environmental Systems*, **2021**, 38, 295-297	2.1	