Jeffrey J Thomas

List of Publications by Year
in descending order

56 papers	7,625 citations	134610 34 h-index	198040 52 g-index
57 all docs	57 docs citations	57 times ranked	4591 citing authors

#	Article	IF	Citations
1	Early age volume changes in metakaolin geopolymers: Insights from molecular simulations and experiments. Cement and Concrete Research, 2021, 144, 106428.	4.6	17
2	Development of silica-enriched cement-based materials with improved aging resistance for application in high-temperature environments. Cement and Concrete Research, 2018, 105, 91-110.	4.6	41
3	Kinetic mechanisms and activation energies for hydration of standard and highly reactive forms of Î²-dicalcium silicate (C2S). Cement and Concrete Research, 2017, 100, 322-328.	4.6	56
4	Hysteresis from Multiscale Porosity: Modeling Water Sorption and Shrinkage in Cement Paste. Physical Review Applied, 2015, 3, .	1.5	112
5	Time dependent driving forces and the kinetics of tricalcium silicate hydration. Cement and Concrete Research, 2015, 74, 26-34.	4.6	97
6	Nano-chemo-mechanical signature of conventional oil-well cement systems: Effects of elevated temperature and curing time. Cement and Concrete Research, 2015, 67, 103-121.	4.6	118
7	Kinetics and Activation Energy of Magnesium Oxide Hydration. Journal of the American Ceramic Society, 2014, 97, 275-282.	1.9	75
8	The neutron scattering length density of kerogen and coal as determined by CH3OH/CD3OH exchange. Fuel, 2014, 117, 801-808.	3.4	43
9	A Reaction Zone Hypothesis for the Effects of Particle Size and Waterâ€toâ€Cement Ratio on the Early Hydration Kinetics of C₃S. Journal of the American Ceramic Society, 2014, 97, 967-975.	1.9	49
10	Water Isotherms, Shrinkage and Creep of Cement Paste: Hypotheses, Models and Experiments. , 2013, , .		6
11	Reactive elastomeric composites: When rubber meets cement. Composites Science and Technology, 2013, 75, 77-83.	3.8	12
12	Fundamental Investigation of the Chemical and Mechanical Properties of High-Temperature-Cured Oilwell Cements. , 2012, , .		6
13	The Instantaneous Apparent Activation Energy of Cement Hydration Measured Using a Novel Calorimetryâ€Based Method. Journal of the American Ceramic Society, 2012, 95, 3291-3296.	1.9	55
14	Density and water content of nanoscale solid Câ€"Sâ€"H formed in alkali-activated slag (AAS) paste and implications for chemical shrinkage. Cement and Concrete Research, 2012, 42, 377-383.	4.6	122
15	Permeability and elastic modulus of cement paste as a function of curing temperature. Cement and Concrete Research, 2012, 42, 440-446.	4.6	23
16	Nucleation and growth models for hydration of cement. Cement and Concrete Research, 2012, 42, 982-993.	4.6	136
17	Transient creep effects and the lubricating power of water in materials ranging from paper to concrete and Kevlar. Journal of the Mechanics and Physics of Solids, 2012, 60, 1350-1362.	2.3	27
18	Mechanisms of cement hydration. Cement and Concrete Research, 2011, 41, 1208-1223.	4.6	1,446

#	Article	IF	Citations
19	Modeling and simulation of cement hydration kinetics and microstructure development. Cement and Concrete Research, 2011, 41, 1257-1278.	4.6	328
20	Influence of nucleation seeding on the hydration kinetics and compressive strength of alkali activated slag paste. Cement and Concrete Research, 2011, 41, 842-846.	4.6	139
21	A novel and general form of effective stress in a partially saturated porous material: The influence of microstructure. Mechanics of Materials, 2011, 43, 25-35.	1.7	30
22	CHARACTERIZATION OF WATER-SATURATED POROUS CEMENT PASTE BY A LASER BASED ULTRASONIC NDE TECHNIQUE. , 2010, , .		0
23	Relationships between Composition and Density of Tobermorite, Jennite, and Nanoscale CaOâˆ'SiO₂âˆ'H₂O. Journal of Physical Chemistry C, 2010, 114, 7594-7601.	1.5	101
24	A constitutive model for drying of a partially saturated porous material. Mechanics of Materials, 2009, 41, 319-328.	1.7	52
25	Hydration Kinetics and Microstructure Development of Normal and CaCl₂-Accelerated Tricalcium Silicate Pastes. Journal of Physical Chemistry C, 2009, 113, 19836-19844.	1.5	111
26	Influence of Nucleation Seeding on the Hydration Mechanisms of Tricalcium Silicate and Cement. Journal of Physical Chemistry C, 2009, 113, 4327-4334.	1.5	571
27	Structural Changes to the Calciumâ€"Silicateâ€"Hydrate Gel Phase of Hydrated Cement with Age, Drying, and Resaturation. Journal of the American Ceramic Society, 2008, 91, 3362-3369.	1.9	94
28	Characterization and Modeling of Pores and Surfaces in Cement Paste. Journal of Advanced Concrete Technology, 2008, 6, 5-29.	0.8	185
29	A multi-technique investigation of the nanoporosity of cement paste. Cement and Concrete Research, 2007, 37, 329-336.	4.6	341
30	Analysis of Câ€"Sâ€"H gel and cement paste by small-angle neutron scattering. Cement and Concrete Research, 2007, 37, 319-324.	4.6	111
31	Reply to discussion of the paper â€œA multi-technique investigation of the nanoporosity of cement pasteâ€• Cement and Concrete Research, 2007, 37, 1374-1375.	4.6	4
32	Composition and density of nanoscale calciumâ€"silicateâ€"hydrate in cement. Nature Materials, 2007, 6, 311-316.	13.3	842
33	A New Approach to Modeling the Nucleation and Growth Kinetics of Tricalcium Silicate Hydration. Journal of the American Ceramic Society, 2007, 90, 3282-3288.	1.9	252
34	A colloidal interpretation of chemical aging of the C-S-H gel and its effects on the properties of cement paste. Cement and Concrete Research, 2006, 36, 30-38.	4.6	211
35	Decalcification shrinkage of cement paste. Cement and Concrete Research, 2006, 36, 801-809.	4.6	283
36	A discussion of the paper â€œThe BET-specific surface area of hydrated Portland cement and related materialsâ€•by Ivan Odler. Cement and Concrete Research, 2004, 34, 1959-1960.	4.6	13

#	Article	IF	Citations
37	Effects of decalcification on the microstructure and surface area of cement and tricalcium silicate pastes. Cement and Concrete Research, 2004, 34, 2297-2307.	4.6	104
38	Solubility and structure of calcium silicate hydrate. Cement and Concrete Research, 2004, 34, 1499-1519.	4.6	666
39	Changes in the size of pores during shrinkage (or expansion) of cement paste and concrete. Cement and Concrete Research, 2003, 33, 1897-1900.	4.6	16
40	Effect of hydration temperature on the solubility behavior of Ca-, S-, Al-, and Si-bearing solid phases in Portland cement pastes. Cement and Concrete Research, 2003, 33, 2037-2047.	4.6	104
41	Caâˆ’OH Bonding in the Câˆ’Sâˆ’H Gel Phase of Tricalcium Silicate and White Portland Cement Pastes Measured by Inelastic Neutron Scattering. Chemistry of Materials, 2003, 15, 3813-3817.	3.2	96
42	Effect of Heat Treatment on the Pore Structure and Drying Shrinkage Behavior of Hydrated Cement Paste. Journal of the American Ceramic Society, 2002, 85, 2293-2298.	1.9	34
43	Solubility behavior of Ca-, S-, Al-, and Si-bearing solid phases in Portland cement pore solutions as a function of hydration time. Cement and Concrete Research, 2002, 32, 1663-1671.	4.6	153
44	State of Water in Hydrating Tricalcium Silicate and Portland Cement Pastes as Measured by Quasiâ€Elastic Neutron Scattering. Journal of the American Ceramic Society, 2001, 84, 1811-1816.	1.9	101
45	Effects of D2O and Mixing on the Early Hydration Kinetics of Tricalcium Silicate. Chemistry of Materials, 1999, 11, 1907-1914.	3.2	76
46	Determination of the Neutron Scattering Contrast of Hydrated Portland Cement Paste using H2O/D2O Exchange. Advanced Cement Based Materials, 1998, 7, 119-122.	0.4	31
47	Freeâ€Energyâ€Based Model of Chemical Equilibria in the CaOâ€“SiO₂â€H₂O System. Journal of the American Ceramic Society, 1998, 81, 606-612.	1.9	9
48	Chemistry of the Aqueous Phase of Ordinary Portland Cement Pastes at Early Reaction Times. Journal of the American Ceramic Society, 1998, 81, 2349-2359.	1.9	21
49	Deterioration of the nitrogen BET surface area of dried cement paste with storage time. Advanced Cement Based Materials, 1996, 3, 72-75.	0.4	24
50	Effect of carbonation on the nitrogen BET surface area of hardened portland cement paste. Advanced Cement Based Materials, 1996, 3, 76-80.	0.4	31
51	Formation of Reaction-Bonded Silicon Nitride Using Microwave Heating. Journal of the American Ceramic Society, 1996, 79, 2458-2468.	1.9	9
52	Deterioration of the nitrogen BET surface area of dried cement paste with storage time. , 1996, 3, 72-72.		3
53	A model for microwave processing of compositionally changing ceramic systems. Journal of Materials Research, 1995, 10, 3160-3178.	1.2	15
54	Nonisothermal Microwave Processing of Reaction-Bonded Silicon Nitride. Journal of the American Ceramic Society, 1993, 76, 1384-1386.	1.9	15

#	Article	IF	Citations
55	Nitridation of Non-Isothermal Silicon Compacts. Materials Research Society Symposia Proceedings, 1992, 269, 277.	0.1	1
56	Microwave Nitrudation of Silicon Compacts Utilizing a Temperature Gradient. Materials Research Society Symposia Proceedings, 1992, 287, 277.	0.1	1