

# Franz-Josef Ulm

## List of Publications by Citations

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171  
papers

12,654  
citations

61  
h-index

110  
g-index

175  
ext. papers

14,210  
ext. citations

5.2  
avg, IF

6.74  
L-index

#	Paper	IF	Citations
171	The effect of two types of C-S-H on the elasticity of cement-based materials: Results from nanoindentation and micromechanical modeling. <i>Cement and Concrete Research</i> , <b>2004</b> , 34, 67-80	10.3	705
170	A realistic molecular model of cement hydrates. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2009</b> , 106, 16102-7	11.5	547
169	The nanogranular nature of C-S-H. <i>Journal of the Mechanics and Physics of Solids</i> , <b>2007</b> , 55, 64-90	5	537
168	Grid indentation analysis of composite microstructure and mechanics: Principles and validation. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2006</b> , 430, 189-202	5.3	382
167	A multiscale micromechanics-hydration model for the early-age elastic properties of cement-based materials. <i>Cement and Concrete Research</i> , <b>2003</b> , 33, 1293-1309	10.3	378
166	Statistical Indentation Techniques for Hydrated Nanocomposites: Concrete, Bone, and Shale. <i>Journal of the American Ceramic Society</i> , <b>2007</b> , 90, 2677-2692	3.8	368
165	The nano-mechanical signature of Ultra High Performance Concrete by statistical nanoindentation techniques. <i>Cement and Concrete Research</i> , <b>2008</b> , 38, 1447-1456	10.3	323
164	Microprestress-Solidification Theory for Concrete Creep. I: Aging and Drying Effects. <i>Journal of Engineering Mechanics - ASCE</i> , <b>1997</b> , 123, 1188-1194	2.4	297
163	Nanogranular origin of concrete creep. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2009</b> , 106, 10552-7	11.5	287
162	A multi-technique investigation of the nanoporosity of cement paste. <i>Cement and Concrete Research</i> , <b>2007</b> , 37, 329-336	10.3	279
161	Surface roughness criteria for cement paste nanoindentation. <i>Cement and Concrete Research</i> , <b>2008</b> , 38, 467-476	10.3	261
160	Combinatorial molecular optimization of cement hydrates. <i>Nature Communications</i> , <b>2014</b> , 5, 4960	17.4	260
159	<b>2006</b> ,		248
158	Realistic molecular model of kerogen's nanostructure. <i>Nature Materials</i> , <b>2016</b> , 15, 576-82	27	236
157	Confined water dissociation in microporous defective silicates: mechanism, dipole distribution, and impact on substrate properties. <i>Journal of the American Chemical Society</i> , <b>2012</b> , 134, 2208-15	16.4	216
156	Nanogranular packing of C-S-H at substoichiometric conditions. <i>Cement and Concrete Research</i> , <b>2010</b> , 40, 14-26	10.3	197
155	Modeling of Thermochemomechanical Couplings of Concrete at Early Ages. <i>Journal of Engineering Mechanics - ASCE</i> , <b>1995</b> , 121, 785-794	2.4	185

154	Subcontinuum mass transport of condensed hydrocarbons in nanoporous media. <i>Nature Communications</i> , <b>2015</b> , 6, 6949	17.4	184
153	Empirical force fields for complex hydrated calcio-silicate layered materials. <i>Physical Chemistry Chemical Physics</i> , <b>2011</b> , 13, 1002-11	3.6	177
152	The nanogranular behavior of C-S-H at elevated temperatures (up to 700 °C). <i>Cement and Concrete Research</i> , <b>2007</b> , 37, 1-12	10.3	174
151	A Coupled Nanoindentation/SEM-EDS Study on Low Water/Cement Ratio Portland Cement Paste: Evidence for C <sub>2</sub> S/Ca(OH) <sub>2</sub> Nanocomposites. <i>Journal of the American Ceramic Society</i> , <b>2010</b> , 93, 1484	3.8	171
150	Nanoindentation investigation of creep properties of calcium silicate hydrates. <i>Cement and Concrete Research</i> , <b>2013</b> , 52, 38-52	10.3	167
149	The nano-mechanical morphology of shale. <i>Mechanics of Materials</i> , <b>2008</b> , 40, 318-337	3.3	160
148	First-Principles Study of Elastic Constants and Interlayer Interactions of Complex Hydrated Oxides: Case Study of Tobermorite and Jennite. <i>Journal of the American Ceramic Society</i> , <b>2009</b> , 92, 2323-2330	3.8	150
147	The nanogranular nature of shale. <i>Acta Geotechnica</i> , <b>2006</b> , 1, 77-88	4.9	148
146	The "Chunnel" Fire. I: Chemoplastic Softening in Rapidly Heated Concrete. <i>Journal of Engineering Mechanics - ASCE</i> , <b>1999</b> , 125, 272-282	2.4	145
145	Mesoscale texture of cement hydrates. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2016</b> , 113, 2029-34	11.5	143
144	Mechanical properties of calcium-leached cement pastes. <i>Cement and Concrete Research</i> , <b>2001</b> , 31, 767-774	10.3	143
143	Strength Growth as Chemo-Plastic Hardening in Early Age Concrete. <i>Journal of Engineering Mechanics - ASCE</i> , <b>1996</b> , 122, 1123-1132	2.4	134
142	Nanostructure and nanomechanics of cement: polydisperse colloidal packing. <i>Physical Review Letters</i> , <b>2012</b> , 109, 155503	7.4	133
141	Nanogranular origins of the strength of bone. <i>Nano Letters</i> , <b>2006</b> , 6, 2520-5	11.5	133
140	Nanoindentation analysis as a two-dimensional tool for mapping the mechanical properties of complex surfaces. <i>Journal of Materials Research</i> , <b>2009</b> , 24, 679-690	2.5	132
139	Explicit approximations of the indentation modulus of elastically orthotropic solids for conical indenters. <i>International Journal of Solids and Structures</i> , <b>2004</b> , 41, 7351-7360	3.1	131
138	Viscoelastic solutions for conical indentation. <i>International Journal of Solids and Structures</i> , <b>2006</b> , 43, 3142-3165	3.1	123
137	Creep and shrinkage of concrete: physical origins and practical measurements. <i>Nuclear Engineering and Design</i> , <b>2001</b> , 203, 143-158	1.8	120

136	Are mineralized tissues open crystal foams reinforced by crosslinked collagen? Some energy arguments. <i>Journal of Biomechanics</i> , <b>2002</b> , 35, 1199-1212	2.9	109
135	The "tunnel" Fire. II: Analysis of Concrete Damage. <i>Journal of Engineering Mechanics - ASCE</i> , <b>1999</b> , 125, 283-289	2.4	106
134	Can the diverse elastic properties of trabecular and cortical bone be attributed to only a few tissue-independent phase properties and their interactions? Arguments from a multiscale approach. <i>Biomechanics and Modeling in Mechanobiology</i> , <b>2004</b> , 2, 219-38	3.8	105
133	Does microstructure matter for statistical nanoindentation techniques?. <i>Cement and Concrete Composites</i> , <b>2010</b> , 32, 92-99	8.6	101
132	The effect of the nanogranular nature of shale on their poroelastic behavior. <i>Acta Geotechnica</i> , <b>2007</b> , 2, 155-182	4.9	101
131	Anomalous composition-dependent dynamics of nanoconfined water in the interlayer of disordered calcium-silicates. <i>Journal of Chemical Physics</i> , <b>2014</b> , 140, 054515	3.9	96
130	Micromechanical Model for Ultrastructural Stiffness of Mineralized Tissues. <i>Journal of Engineering Mechanics - ASCE</i> , <b>2002</b> , 128, 898-908	2.4	96
129	Experimental determination of the fracture toughness via microscratch tests: Application to polymers, ceramics, and metals. <i>Journal of Materials Research</i> , <b>2012</b> , 27, 485-493	2.5	89
128	Rigidity transition in materials: hardness is driven by weak atomic constraints. <i>Physical Review Letters</i> , <b>2015</b> , 114, 125502	7.4	86
127	Couplings in early-age concrete: From material modeling to structural design. <i>International Journal of Solids and Structures</i> , <b>1998</b> , 35, 4295-4311	3.1	85
126	Chemoporoplasticity of Calcium Leaching in Concrete. <i>Journal of Engineering Mechanics - ASCE</i> , <b>1999</b> , 125, 1200-1211	2.4	85
125	An improved technique for characterizing the fracture toughness via scratch test experiments. <i>Wear</i> , <b>2014</b> , 313, 117-124	3.5	82
124	Scratching as a fracture process: from butter to steel. <i>Physical Review Letters</i> , <b>2011</b> , 106, 204302	7.4	81
123	Scratch test model for the determination of fracture toughness. <i>Engineering Fracture Mechanics</i> , <b>2011</b> , 78, 334-342	4.2	80
122	Nano-chemo-mechanical signature of conventional oil-well cement systems: Effects of elevated temperature and curing time. <i>Cement and Concrete Research</i> , <b>2015</b> , 67, 103-121	10.3	78
121	Order and disorder in calcium-silicate-hydrate. <i>Journal of Chemical Physics</i> , <b>2014</b> , 140, 214503	3.9	78
120	Dual-indentation technique for the assessment of strength properties of cohesive-frictional materials. <i>International Journal of Solids and Structures</i> , <b>2006</b> , 43, 1727-1745	3.1	73
119	Volume and deviator creep of calcium-leached cement-based materials. <i>Cement and Concrete Research</i> , <b>2003</b> , 33, 1127-1136	10.3	73

118	Impact of Chemical Impurities on the Crystalline Cement Clinker Phases Determined by Atomistic Simulations. <i>Crystal Growth and Design</i> , <b>2011</b> , 11, 2964-2972	3.5	72
117	Nanochemo-mechanical signature of organic-rich shales: a coupled indentation-EDX analysis. <i>Acta Geotechnica</i> , <b>2016</b> , 11, 559-572	4.9	71
116	Average hydroxyapatite concentration is uniform in the extracollagenous ultrastructure of mineralized tissues: evidence at the 1-10-microm scale. <i>Biomechanics and Modeling in Mechanobiology</i> , <b>2003</b> , 2, 21-36	3.8	71
115	Poroplastic properties of calcium-leached cement-based materials. <i>Cement and Concrete Research</i> , <b>2003</b> , 33, 1155-1173	10.3	67
114	Modeling of Early-Age Creep of Shotcrete. I: Model and Model Parameters. <i>Journal of Engineering Mechanics - ASCE</i> , <b>2000</b> , 126, 284-291	2.4	67
113	Physical Origins of Thermal Properties of Cement Paste. <i>Physical Review Applied</i> , <b>2015</b> , 3,	4.3	66
112	Fracture toughness anomalies: Viewpoint of topological constraint theory. <i>Acta Materialia</i> , <b>2016</b> , 121, 234-239	8.4	62
111	The nanogranular origin of friction and cohesion in shale—a strength homogenization approach to interpretation of nanoindentation results. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , <b>2011</b> , 35, 1854-1876	4	61
110	Hardness-backing density scaling relations for cohesive-frictional porous materials. <i>Journal of the Mechanics and Physics of Solids</i> , <b>2008</b> , 56, 924-952	5	60
109	Inference of the phase-to-mechanical property link via coupled X-ray spectrometry and indentation analysis: Application to cement-based materials. <i>Cement and Concrete Research</i> , <b>2015</b> , 67, 271-285	10.3	58
108	Multisurface Chemoplasticity. I: Material Model for Shotcrete. <i>Journal of Engineering Mechanics - ASCE</i> , <b>1999</b> , 125, 692-701	2.4	57
107	Free Volume Theory of Hydrocarbon Mixture Transport in Nanoporous Materials. <i>Journal of Physical Chemistry Letters</i> , <b>2016</b> , 7, 3712-3717	6.4	57
106	Nano-scale mechanics of colloidal C-S-H gels. <i>Soft Matter</i> , <b>2014</b> , 10, 491-9	3.6	55
105	Elements of chemomechanics of calcium leaching of cement-based materials at different scales. <i>Engineering Fracture Mechanics</i> , <b>2003</b> , 70, 871-889	4.2	55
104	Drained and Undrained Poroelastic Properties of Healthy and Pathological Bone: A Poro-Micromechanical Investigation. <i>Transport in Porous Media</i> , <b>2005</b> , 58, 243-268	3.1	53
103	Quantifying plasticity-independent creep compliance and relaxation of viscoelastoplastic materials under contact loading. <i>Journal of Materials Research</i> , <b>2012</b> , 27, 302-312	2.5	49
102	Nanochemomechanical assessment of shale: a coupled WDS-indentation analysis. <i>Acta Geotechnica</i> , <b>2012</b> , 7, 271-295	4.9	48
101	Nanomechanics of organic-rich shales: the role of thermal maturity and organic matter content on texture. <i>Acta Geotechnica</i> , <b>2016</b> , 11, 775-787	4.9	47

100	Role of City Texture in Urban Heat Islands at Nighttime. <i>Physical Review Letters</i> , <b>2018</b> , 120, 108701	7.4	46
99	Atomic-scale modelling of elastic and failure properties of clays. <i>Molecular Physics</i> , <b>2014</b> , 112, 1294-1305	5.7	44
98	Fracture scaling relations for scratch tests of axisymmetric shape. <i>Journal of the Mechanics and Physics of Solids</i> , <b>2012</b> , 60, 379-390	5	43
97	Biological Structures Mitigate Catastrophic Fracture Through Various Strategies. <i>International Journal of Fracture</i> , <b>2005</b> , 135, 187-197	2.3	43
96	The scratch test for strength and fracture toughness determination of oil well cements cured at high temperature and pressure. <i>Cement and Concrete Research</i> , <b>2011</b> , 41, 942-946	10.3	42
95	Set in stone? A perspective on the concrete sustainability challenge. <i>MRS Bulletin</i> , <b>2012</b> , 37, 395-402	3.2	42
94	The nanogranular acoustic signature of shale. <i>Geophysics</i> , <b>2009</b> , 74, D65-D84	3.1	42
93	Impact of Nanoporosity on Hydrocarbon Transport in Shales' Organic Matter. <i>Nano Letters</i> , <b>2018</b> , 18, 832-837	11.5	41
92	Stress Transmission and Failure in Disordered Porous Media. <i>Physical Review Letters</i> , <b>2017</b> , 119, 075501	7.4	40
91	Hybrid method for quantification of stress states in shotcrete tunnel shells: combination of 3D in situ displacement measurements and thermochemoplastic material law. <i>Computers and Structures</i> , <b>2001</b> , 79, 2103-2115	4.5	37
90	What Is a "Massive" Concrete Structure at Early Ages? Some Dimensional Arguments. <i>Journal of Engineering Mechanics - ASCE</i> , <b>2001</b> , 127, 512-522	2.4	36
89	Experimental chemo-mechanics of early-age fracture properties of cement paste. <i>Cement and Concrete Research</i> , <b>2015</b> , 75, 42-52	10.3	35
88	Consistent linearization in Finite Element analysis of coupled chemo-thermal problems with exo- or endothermal reactions. <i>Computational Mechanics</i> , <b>1999</b> , 24, 238-244	4	35
87	Is concrete a poromechanics material? - A multiscale investigation of poroelastic properties. <i>Materials and Structures/Materiaux Et Constructions</i> , <b>2004</b> , 37, 43-58	3.4	35
86	Effect of Inclusions on Friction Coefficient of Highly Filled Composite Materials. <i>Journal of Engineering Mechanics - ASCE</i> , <b>2002</b> , 128, 876-884	2.4	34
85	Multiporoelasticity of Hierarchically Structured Materials: Micromechanical Foundations and Application to Bone. <i>Journal of Engineering Mechanics - ASCE</i> , <b>2009</b> , 135, 382-394	2.4	32
84	Compressive Behavior of Concrete: Physical Mechanisms and Modeling. <i>Journal of Engineering Mechanics - ASCE</i> , <b>1996</b> , 122, 1038-1043	2.4	32
83	Discussion: Strength-to-fracture scaling in scratching. <i>Engineering Fracture Mechanics</i> , <b>2014</b> , 119, 21-28	4.2	31

82	Bottom-up model of adsorption and transport in multiscale porous media. <i>Physical Review E</i> , <b>2015</b> , 91, 032133	2.4	30
81	Disorder-induced stiffness degradation of highly disordered porous materials. <i>Journal of the Mechanics and Physics of Solids</i> , <b>2017</b> , 106, 207-228	5	28
80	A soft matter in construction – Statistical physics approach to formation and mechanics of C&S&H gels in cement. <i>European Physical Journal: Special Topics</i> , <b>2014</b> , 223, 2285-2295	2.3	27
79	Residual design strength of cement-based materials for nuclear waste storage systems. <i>Nuclear Engineering and Design</i> , <b>2002</b> , 211, 51-60	1.8	27
78	Mesoscale structure, mechanics, and transport properties of source rocks' organic pore networks. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2018</b> , 115, 12365-12370	11.5	27
77	Crystal-chemistry control of the mechanical properties of 2:1 clay minerals. <i>Applied Clay Science</i> , <b>2017</b> , 143, 387-398	5.2	26
76	Computational mechanics of the steel–concrete interface. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , <b>2002</b> , 26, 99-120	4	25
75	Evidence on the Dual Nature of Aluminum in the Calcium-Silicate-Hydrates Based on Atomistic Simulations. <i>Journal of the American Ceramic Society</i> , <b>2012</b> , 95, n/a-n/a	3.8	24
74	Microporodynamics of Bones: Prediction of the –Renkel–Biot–Slow Compressional Wave. <i>Journal of Engineering Mechanics - ASCE</i> , <b>2005</b> , 131, 918-927	2.4	24
73	Optimized molecular reconstruction procedure combining hybrid reverse Monte Carlo and molecular dynamics. <i>Journal of Chemical Physics</i> , <b>2015</b> , 142, 114112	3.9	22
72	Indentation analysis of fractional viscoelastic solids. <i>Journal of Mechanics of Materials and Structures</i> , <b>2009</b> , 4, 523-550	1.2	22
71	Steel–concrete interface: revisiting constitutive and numerical modeling. <i>Computers and Structures</i> , <b>1999</b> , 71, 489-503	4.5	22
70	Role of Organic Matter on Nanoscale and Microscale Creep Properties of Source Rocks. <i>Journal of Engineering Mechanics - ASCE</i> , <b>2019</b> , 145, 04018121	2.4	22
69	Multiscale poromechanics of wet cement paste. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2019</b> , 116, 10652-10657	11.5	21
68	Similarity properties of demineralization and degradation of cracked porous materials. <i>International Journal of Solids and Structures</i> , <b>2001</b> , 38, 7079-7100	3.1	21
67	Improving the practicality and safety of artificial corneas: Pre-assembly and gamma-rays sterilization of the Boston Keratoprosthesis. <i>Ocular Surface</i> , <b>2018</b> , 16, 322-330	6.5	20
66	Le Ch&elier– conjecture: Measurement of colloidal eigenstresses in chemically reactive materials. <i>Journal of the Mechanics and Physics of Solids</i> , <b>2018</b> , 112, 334-344	5	20
65	Inhomogeneity in Cement Hydrates: Linking Local Packing to Local Pressure. <i>Journal of Nanomechanics &amp; Micromechanics</i> , <b>2017</b> , 7, 04017003		19

64	Scratch hardness-strength solutions for cohesive-frictional materials. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , <b>2012</b> , 36, 307-326	4	19
63	Nano-Engineering of Concrete. <i>Arabian Journal for Science and Engineering</i> , <b>2012</b> , 37, 481-488		19
62	Rate-independent fracture toughness of gray and black kerogen-rich shales. <i>Acta Geotechnica</i> , <b>2017</b> , 12, 1207-1227	4.9	18
61	Roughness-Induced Vehicle Energy Dissipation: Statistical Analysis and Scaling. <i>Journal of Engineering Mechanics - ASCE</i> , <b>2015</b> , 141, 04015046	2.4	18
60	Simultaneous assessment of phase chemistry, phase abundance and bulk chemistry with statistical electron probe micro-analyses: Application to cement clinkers. <i>Cement and Concrete Research</i> , <b>2014</b> , 55, 35-48	10.3	17
59	A molecular informed poroelastic model for organic-rich, naturally occurring porous geocomposites. <i>Journal of the Mechanics and Physics of Solids</i> , <b>2016</b> , 88, 186-203	5	16
58	Methane Diffusion in a Flexible Kerogen Matrix. <i>Journal of Physical Chemistry B</i> , <b>2019</b> , 123, 5635-5640	3.4	15
57	GeoMechanics Field Characterization of the Two Prolific U.S. Mid-West Gas Plays with Advanced Wire-Line Logging Tools <b>2009</b> ,		15
56	Coupled Diffusion-Dissolution Around a Fracture Channel: The Solute Congestion Phenomenon. <i>Transport in Porous Media</i> , <b>2001</b> , 45, 479-495	3.1	15
55	Experimental Microporomechanics <b>2005</b> , 207-288		15
54	Plane-Strain Crack Problem in Transversely Isotropic Solids for Hydraulic Fracturing Applications. <i>Journal of Engineering Mechanics - ASCE</i> , <b>2014</b> , 140, 04014092	2.4	14
53	Effective Potentials and Elastic Properties in the Lattice-Element Method: Isotropy and Transverse Isotropy. <i>Journal of Nanomechanics &amp; Micromechanics</i> , <b>2017</b> , 7, 04017007		14
52	Homogenization of Cohesive-Frictional Strength Properties of Porous Composites: Linear Comparison Composite Approach. <i>Journal of Nanomechanics &amp; Micromechanics</i> , <b>2011</b> , 1, 11-23		14
51	A reaction model for cement solidification: Evolving the packing density at the micrometer-scale. <i>Journal of the Mechanics and Physics of Solids</i> , <b>2018</b> , 118, 58-73	5	13
50	Size-Effect Law for Scratch Tests of Axisymmetric Shape. <i>Journal of Engineering Mechanics - ASCE</i> , <b>2016</b> , 142, 04016094	2.4	13
49	Atomistic and mesoscale simulation of sodium and potassium adsorption in cement paste. <i>Journal of Chemical Physics</i> , <b>2018</b> , 149, 074705	3.9	12
48	Methodology for Estimation of Nanoscale Hardness via Atomistic Simulations. <i>Journal of Nanomechanics &amp; Micromechanics</i> , <b>2017</b> , 7, 04017011		12
47	A potential-of-mean-force approach for fracture mechanics of heterogeneous materials using the lattice element method. <i>Journal of the Mechanics and Physics of Solids</i> , <b>2017</b> , 105, 116-130	5	11



46	Does C <sub>3</sub> S particle shape matter? A discussion of the paper "Modelling elasticity of a hydrating cement paste" by Julien Sanahuja, Luc Dormieux and Gilles Chanvillard. <i>CCR</i> 37 (2007) 1427-1439. <i>Cement and Concrete Research</i> , <b>2008</b> , 38, 1126-1129	10.3	11
45	Multisurface Chemoplasticity. II: Numerical Studies on NATM Tunneling. <i>Journal of Engineering Mechanics - ASCE</i> , <b>1999</b> , 125, 702-713	2.4	11
44	Does Calcium Leaching Increase Ductility of Cementitious Materials? Evidence from Direct Tensile Tests. <i>Journal of Materials in Civil Engineering</i> , <b>2005</b> , 17, 307-312	3	10
43	Nacre toughening due to cooperative plastic deformation of stacks of co-oriented aragonite platelets. <i>Communications Materials</i> , <b>2020</b> , 1,	6	10
42	Scaling relations for viscoelastic "cohesive conical indentation. <i>International Journal of Materials Research</i> , <b>2008</b> , 99, 836-846	0.5	9
41	Use of neural networks for fitting of FE probabilistic scaling model parameters. <i>International Journal of Fracture</i> , <b>1999</b> , 95, 315-324	2.3	9
40	Radial fracture in a three-phase composite: Application to wellbore cement liners at early ages. <i>Engineering Fracture Mechanics</i> , <b>2016</b> , 154, 272-287	4.2	8
39	Microscopic Toughness of Viscous Solids via Scratching: From Amorphous Polymers to Gas Shale. <i>Journal of Nanomechanics &amp; Micromechanics</i> , <b>2017</b> , 7, 04017009		8
38	Comment on "Elastic modulus and hardness of muscovite and rectorite determined by nanoindentation" by G. Zhang, Z. Wei and R.E. Ferrell [Applied Clay Science 43 (2009) 271-281]. <i>Applied Clay Science</i> , <b>2009</b> , 46, 425-428	5.2	8
37	An algorithm for computing the compressive strength of heterogeneous cohesive-frictional materials "Application to cement paste. <i>Computers and Geotechnics</i> , <b>2007</b> , 34, 254-266	4.4	8
36	Early-Age Stress and Pressure Developments in a Wellbore Cement Liner: Application to Eccentric Geometries. <i>Journal of Applied Mechanics, Transactions ASME</i> , <b>2016</b> , 83,	2.7	7
35	Creep of Bulk C-S-H: Insights from Molecular Dynamics Simulations <b>2015</b> ,		7
34	Chemoelastic Fracture Mechanics Model for Cement Sheath Integrity. <i>Journal of Engineering Mechanics - ASCE</i> , <b>2014</b> , 140, 04013009	2.4	7
33	Velocity statistics of the Nagel-Schreckenberg model. <i>Physical Review E</i> , <b>2016</b> , 93, 022305	2.4	6
32	A methodology to calibrate and to validate effective solid potentials of heterogeneous porous media from computed tomography scans and laboratory-measured nanoindentation data. <i>Acta Geotechnica</i> , <b>2018</b> , 13, 1369-1394	4.9	6
31	Irwin's conjecture: Crack shape adaptability in transversely isotropic solids. <i>Journal of the Mechanics and Physics of Solids</i> , <b>2014</b> , 68, 1-13	5	6
30	Durability Scaling of Cracking in HPC Structures Subject to Hygromechanical Gradients. <i>Journal of Structural Engineering</i> , <b>1999</b> , 125, 693-702	3	6
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