

George W Scherer

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275
papers

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67
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116
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279
ext. papers

17,267
ext. citations

5
avg, IF

7.17
L-index

#	Paper	IF	Citations
275	Mechanisms of cement hydration. <i>Cement and Concrete Research</i> , 2011 , 41, 1208-1223	10.3	1012
274	Theory of Drying. <i>Journal of the American Ceramic Society</i> , 1990 , 73, 3-14	3.8	719
273	Crystallization in pores. <i>Cement and Concrete Research</i> , 1999 , 29, 1347-1358	10.3	710
272	Tailored Porous Materials. <i>Chemistry of Materials</i> , 1999 , 11, 2633-2656	9.6	623
271	Stress from crystallization of salt. <i>Cement and Concrete Research</i> , 2004 , 34, 1613-1624	10.3	538
270	Comparison of methods for arresting hydration of cement. <i>Cement and Concrete Research</i> , 2011 , 41, 1024-1036	10.3	393
269	Use of the Adam-Gibbs Equation in the Analysis of Structural Relaxation. <i>Journal of the American Ceramic Society</i> , 2006 , 67, 504-511	3.8	338
268	Sintering of Low-Density Glasses: I, Theory. <i>Journal of the American Ceramic Society</i> , 1977 , 60, 236-239	3.8	297
267	Modeling and simulation of cement hydration kinetics and microstructure development. <i>Cement and Concrete Research</i> , 2011 , 41, 1257-1278	10.3	230
266	Theories of relaxation. <i>Journal of Non-Crystalline Solids</i> , 1990 , 123, 75-89	3.9	184
265	Crystallization damage by sodium sulfate. <i>Journal of Cultural Heritage</i> , 2003 , 4, 109-115	2.9	172
264	Early hydration and setting of oil well cement. <i>Cement and Concrete Research</i> , 2010 , 40, 1023-1033	10.3	167
263	Aging and drying of gels. <i>Journal of Non-Crystalline Solids</i> , 1988 , 100, 77-92	3.9	166
262	Freezing gels. <i>Journal of Non-Crystalline Solids</i> , 1993 , 155, 1-25	3.9	165
261	Effect of air voids on salt scaling and internal freezing. <i>Cement and Concrete Research</i> , 2010 , 40, 260-270	10.3	163
260	Compression of aerogels. <i>Journal of Non-Crystalline Solids</i> , 1995 , 186, 316-320	3.9	149
259	The use of hydroxyapatite as a new inorganic consolidant for damaged carbonate stones. <i>Journal of Cultural Heritage</i> , 2011 , 12, 346-355	2.9	148

258	Degradation of oilwell cement due to exposure to carbonated brine. <i>International Journal of Greenhouse Gas Control</i> , 2010 , 4, 546-560	4.2	148
257	Mechanical structure-property relationship of aerogels. <i>Journal of Non-Crystalline Solids</i> , 2000 , 277, 127-141	3.9	148
256	Characterization and Modeling of Pores and Surfaces in Cement Paste. <i>Journal of Advanced Concrete Technology</i> , 2008 , 6, 5-29	2.3	145
255	A review of salt scaling: II. Mechanisms. <i>Cement and Concrete Research</i> , 2007 , 37, 1022-1034	10.3	145
254	Viscous Sintering on a Rigid Substrate. <i>Journal of the American Ceramic Society</i> , 1985 , 68, 216-220	3.8	145
253	Sintering inhomogeneous glasses: Application to optical waveguides. <i>Journal of Non-Crystalline Solids</i> , 1979 , 34, 239-256	3.9	145
252	Creep and Densification During Sintering of Glass Powder Compacts. <i>Journal of the American Ceramic Society</i> , 1987 , 70, 766-774	3.8	143
251	A review of salt scaling: I. Phenomenology. <i>Cement and Concrete Research</i> , 2007 , 37, 1007-1021	10.3	134
250	Deformation of aerogels during characterization. <i>Journal of Non-Crystalline Solids</i> , 1995 , 186, 309-315	3.9	134
249	Pore size and shape in mortar by thermoporometry. <i>Cement and Concrete Research</i> , 2010 , 40, 740-751	10.3	128
248	Viscous Sintering of a Bimodal Pore-Size Distribution. <i>Journal of the American Ceramic Society</i> , 1984 , 67, 709-715	3.8	120
247	Drying gels. <i>Journal of Non-Crystalline Solids</i> , 1989 , 109, 171-182	3.9	118
246	Editorial Comments on a Paper by Gordon S. Fulcher. <i>Journal of the American Ceramic Society</i> , 1992 , 75, 1060-1062	3.8	117
245	Mechanism for Salt Scaling. <i>Journal of the American Ceramic Society</i> , 2006 , 89, 1161-1179	3.8	115
244	Drying gels. <i>Journal of Non-Crystalline Solids</i> , 1986 , 87, 199-225	3.9	113
243	Advances in understanding damage by salt crystallization. <i>Accounts of Chemical Research</i> , 2010 , 43, 897-905	10.3	112
242	Thermodynamics of crystallization stresses in DEF. <i>Cement and Concrete Research</i> , 2008 , 38, 325-336	10.3	111
241	Bending of gel beams: method for characterizing elastic properties and permeability. <i>Journal of Non-Crystalline Solids</i> , 1992 , 142, 18-35	3.9	111

240	Particle-modified consolidants: A study on the effect of particles on sol-gel properties and consolidation effectiveness. <i>Journal of Cultural Heritage</i> , 2007 , 8, 1-6	2.9	110
239	Structure and properties of gels. <i>Cement and Concrete Research</i> , 1999 , 29, 1149-1157	10.3	110
238	Nucleation and growth models for hydration of cement. <i>Cement and Concrete Research</i> , 2012 , 42, 982-993	10.3	106
237	A commented translation of the paper by C.W. Correns and W. Steinborn on crystallization pressure. <i>Environmental Geology</i> , 2007 , 52, 187-203		105
236	Silicate Consolidants for Stone. <i>Key Engineering Materials</i> , 2008 , 391, 1-25	0.4	98
235	Volume Relaxation Far from Equilibrium. <i>Journal of the American Ceramic Society</i> , 1986 , 69, 374-381	3.8	98
234	Dilatation of Porous Glass. <i>Journal of the American Ceramic Society</i> , 1986 , 69, 473-480	3.8	98
233	Nitrogen sorption in aerogels. <i>Journal of Non-Crystalline Solids</i> , 2001 , 285, 167-174	3.9	96
232	Recent progress in drying of gels. <i>Journal of Non-Crystalline Solids</i> , 1992 , 147-148, 363-374	3.9	96
231	Study of structural evolution of silica gel using ¹ H and ²⁹ Si NMR. <i>Journal of Non-Crystalline Solids</i> , 1989 , 111, 153-166	3.9	95
230	Cavitation during drying of a gel. <i>Journal of Non-Crystalline Solids</i> , 1995 , 189, 197-211	3.9	89
229	Glasses from colloids. <i>Journal of Non-Crystalline Solids</i> , 1984 , 63, 163-172	3.9	88
228	Chemo-mechanics of salt damage in stone. <i>Nature Communications</i> , 2014 , 5, 4823	17.4	87
227	Quantitative reactive transport modeling of Portland cement in CO ₂ -saturated water. <i>International Journal of Greenhouse Gas Control</i> , 2010 , 4, 561-574	4.2	86
226	Nitrogen adsorption in compliant materials. <i>Journal of Non-Crystalline Solids</i> , 2000 , 277, 162-172	3.9	85
225	Artificial weathering of stone by heating. <i>Journal of Cultural Heritage</i> , 2013 , 14, e85-e93	2.9	83
224	Effect of shrinkage on the modulus of silica gel. <i>Journal of Non-Crystalline Solids</i> , 1989 , 109, 183-190	3.9	83
223	Sintering of Low-Density Glasses: II, Experimental Study. <i>Journal of the American Ceramic Society</i> , 1977 , 60, 239-243	3.8	81

222	Crystallization of sodium sulfate salts in limestone. <i>Environmental Geology</i> , 2008 , 56, 605-621		79
221	New methods to measure liquid permeability in porous materials. <i>Cement and Concrete Research</i> , 2007 , 37, 386-397	10.3	78
220	Sintering of sol-gel films. <i>Journal of Sol-Gel Science and Technology</i> , 1997 , 8, 353-363	2.3	76
219	Measuring Permeability of Rigid Materials by a Beam-Bending Method: III, Cement Paste. <i>Journal of the American Ceramic Society</i> , 2002 , 85, 1537-1544	3.8	74
218	Degradation of cement at the reservoir/cement interface from exposure to carbonated brine. <i>International Journal of Greenhouse Gas Control</i> , 2011 , 5, 1413-1428	4.2	73
217	Computer simulation of mechanical structure-property relationship of aerogels. <i>Journal of Non-Crystalline Solids</i> , 2001 , 285, 216-221	3.9	73
216	Crack-tip stress in gels. <i>Journal of Non-Crystalline Solids</i> , 1992 , 144, 210-216	3.9	73
215	Viscoelasticity in silica gel. <i>Journal of Non-Crystalline Solids</i> , 1988 , 107, 14-22	3.9	73
214	Stress-induced index profile distortion in optical waveguides. <i>Applied Optics</i> , 1980 , 19, 2000-6	1.7	73
213	Consolidation of calcareous and siliceous sandstones by hydroxyapatite: Comparison with a TEOS-based consolidant. <i>Journal of Cultural Heritage</i> , 2013 , 14, e103-e108	2.9	71
212	Effect of drying on properties of silica gel. <i>Journal of Non-Crystalline Solids</i> , 1997 , 215, 155-168	3.9	70
211	Thermal expansion of gels: a novel method for measuring permeability. <i>Journal of Non-Crystalline Solids</i> , 1991 , 130, 157-170	3.9	68
210	Drying gels. <i>Journal of Non-Crystalline Solids</i> , 1987 , 89, 217-238	3.9	68
209	Sol-gel-glass: III. Viscous sintering. <i>Journal of Non-Crystalline Solids</i> , 1985 , 72, 369-389	3.9	68
208	Comparison between flexural and uniaxial compression tests to measure the elastic modulus of silica aerogel. <i>Journal of Non-Crystalline Solids</i> , 2008 , 354, 4556-4561	3.9	66
207	Time dependent driving forces and the kinetics of tricalcium silicate hydration. <i>Cement and Concrete Research</i> , 2015 , 74, 26-34	10.3	65
206	Shrinkage of silica gels aged in TEOS. <i>Journal of Non-Crystalline Solids</i> , 1996 , 202, 42-52	3.9	62
205	Cell Models for Viscous Sintering. <i>Journal of the American Ceramic Society</i> , 1991 , 74, 1523-1531	3.8	61

204	Nucleation, growth and evolution of calcium phosphate films on calcite. <i>Journal of Colloid and Interface Science</i> , 2014 , 435, 128-37	9.3	60
203	Why alite stops hydrating below 80% relative humidity. <i>Cement and Concrete Research</i> , 2011 , 41, 987-992	10.3	60
202	Mechanics of syneresis I. Theory. <i>Journal of Non-Crystalline Solids</i> , 1989 , 108, 18-27	3.9	57
201	Hydroxyapatite coatings for marble protection: Optimization of calcite covering and acid resistance. <i>Applied Surface Science</i> , 2016 , 368, 241-257	6.7	56
200	Viscoelastic-Elastic Composites: I, General Theory. <i>Journal of the American Ceramic Society</i> , 1982 , 65, 352-360	3.8	56
199	Measuring Permeability of Rigid Materials by a Beam-Bending Method: I, Theory. <i>Journal of the American Ceramic Society</i> , 2004 , 83, 2231-2239	3.8	55
198	Materials Science Research for the Conservation of Sculpture and Monuments. <i>MRS Bulletin</i> , 2001 , 26, 44-50	3.2	55
197	Hydraulic radius and mesh size of gels. <i>Journal of Sol-Gel Science and Technology</i> , 1994 , 1, 285-291	2.3	54
196	Correction of drying gels: I. General theory. <i>Journal of Non-Crystalline Solids</i> , 1987 , 92, 375-382	3.9	53
195	Effects upon Nitrogen Sorption Analysis in Aerogels. <i>Journal of Colloid and Interface Science</i> , 2001 , 236, 385-386	9.3	52
194	Stress development during supercritical drying. <i>Journal of Non-Crystalline Solids</i> , 1992 , 145, 33-40	3.9	52
193	Viscosities and Sintering Rates of Composite Packings of Spheres. <i>Journal of the American Ceramic Society</i> , 1995 , 78, 521-528	3.8	51
192	Morphology of cementitious material during early hydration. <i>Cement and Concrete Research</i> , 2018 , 107, 85-100	10.3	50
191	Thermal expansion of confined water. <i>Langmuir</i> , 2009 , 25, 5076-83	4	50
190	Dynamic pressurization method for measuring permeability and modulus: II. cementitious materials. <i>Materials and Structures/Materiaux Et Constructions</i> , 2007 , 40, 711-721	3.4	50
189	Measuring permeability and stress relaxation of young cement paste by beam bending. <i>Cement and Concrete Research</i> , 2003 , 33, 1925-1932	10.3	50
188	Effect of pressure on early hydration of class H and white cement. <i>Cement and Concrete Research</i> , 2010 , 40, 845-850	10.3	49
187	Impact of in-pore salt crystallization on transport properties. <i>Environmental Earth Sciences</i> , 2013 , 69, 2657-2669	2.9	47

186	Thermal Expansion Kinetics: Method to Measure Permeability of Cementitious Materials: II, Application to Hardened Cement Pastes. <i>Journal of the American Ceramic Society</i> , 2004 , 84, 385-91	3.8	46
185	Characterization of cement from a well at Teapot Dome Oil Field: Implications for geological sequestration. <i>International Journal of Greenhouse Gas Control</i> , 2011 , 5, 115-124	4.2	45
184	Mechanical strengthening of TMOS-based alcogels by aging in silane solutions. <i>Journal of Sol-Gel Science and Technology</i> , 1994 , 3, 199-204	2.3	45
183	Viscosities and Sintering Rates of a Two-Dimensional Granular Composite. <i>Journal of the American Ceramic Society</i> , 1993 , 76, 3123-3135	3.8	45
182	Sintering of Low-Density Glasses: III, Effect of a Distribution of Pore Sizes. <i>Journal of the American Ceramic Society</i> , 1977 , 60, 243-246	3.8	45
181	Drying, Shrinkage, and Cracking of Cementitious Materials. <i>Transport in Porous Media</i> , 2015 , 110, 311-331,1	3.1	44
180	An image analysis procedure to quantify the air void system of mortar and concrete. <i>Materials and Structures/Materiaux Et Constructions</i> , 2015 , 48, 3087-3098	3.4	43
179	Stress in aerogel during depressurization of autoclave: II. Silica gels. <i>Journal of Sol-Gel Science and Technology</i> , 1994 , 3, 141-150	2.3	42
178	Experimental study of the diffusion-controlled acid degradation of Class H Portland cement. <i>International Journal of Greenhouse Gas Control</i> , 2012 , 7, 181-191	4.2	41
177	Hydroxyapatite-based consolidant and the acceleration of hydrolysis of silicate-based consolidants. <i>Journal of Cultural Heritage</i> , 2015 , 16, 94-101	2.9	40
176	Elastic properties of crosslinked Resorcinol-Formaldehyde gels and aerogels. <i>Journal of Non-Crystalline Solids</i> , 1997 , 211, 132-142	3.9	40
175	Relaxation and Glass Transition in an Isostatically Compressed Diopside Glass. <i>Journal of the American Ceramic Society</i> , 2007 , 90, 1556-1561	3.8	40
174	Effect of swelling inhibitors on the swelling and stress relaxation of clay bearing stones. <i>Environmental Geology</i> , 2004 , 46, 364		40
173	Stress in aerogel during depressurization of autoclave: I. theory. <i>Journal of Sol-Gel Science and Technology</i> , 1994 , 3, 127-139	2.3	40
172	The chemomechanics of crystallization during rewetting of limestone impregnated with sodium sulfate. <i>Journal of Materials Research</i> , 2011 , 26, 1472-1481	2.5	39
171	Mechanism for salt scaling of a cementitious surface. <i>Materials and Structures/Materiaux Et Constructions</i> , 2007 , 40, 259-268	3.4	39
170	Measuring Permeability of Rigid Materials by a Beam-Bending Method: II, Porous Glass. <i>Journal of the American Ceramic Society</i> , 2004 , 83, 2240-2246	3.8	39
169	Clay swelling mechanism in clay-bearing sandstones. <i>Environmental Geology</i> , 2008 , 56, 529-534		38

168	Virtual tours and informational modeling for conservation of cultural heritage sites. <i>Journal of Cultural Heritage</i> , 2018 , 29, 123-129	2.9	37
167	Sodium sulfate heptahydrate I: The growth of single crystals. <i>Journal of Crystal Growth</i> , 2011 , 329, 44-51	1.6	37
166	Characterization of aerogels. <i>Advances in Colloid and Interface Science</i> , 1998 , 76-77, 321-339	14.3	37
165	Measurement of permeability I. Theory. <i>Journal of Non-Crystalline Solids</i> , 1989 , 113, 107-118	3.9	37
164	Models of confined growth. <i>Cement and Concrete Research</i> , 2012 , 42, 1252-1260	10.3	35
163	Mechanisms of salt scaling. <i>Materials and Structures/Materiaux Et Constructions</i> , 2005 , 38, 479-488	3.4	35
162	Measurement of permeability II. Silica gel. <i>Journal of Non-Crystalline Solids</i> , 1989 , 113, 119-129	3.9	35
161	Adsorption in aerogel networks. <i>Journal of Non-Crystalline Solids</i> , 1998 , 225, 192-199	3.9	34
160	Elasticity of DLCA model gels with loops. <i>International Journal of Solids and Structures</i> , 2002 , 39, 4605-4614	3.4	34
159	Drying gels VII. Diffusion during drying. <i>Journal of Non-Crystalline Solids</i> , 1989 , 107, 135-148	3.9	34
158	Permeability of shale by the beam-bending method. <i>International Journal of Rock Mechanics and Minings Sciences</i> , 2012 , 53, 179-191	6	33
157	Can drying and re-wetting of magnesium sulfate salts lead to damage of stone?. <i>Environmental Earth Sciences</i> , 2011 , 63, 1463-1473	2.9	33
156	Transport of water in small pores. <i>Langmuir</i> , 2009 , 25, 5084-90	4	33
155	Viscous Sintering under a Uniaxial Load. <i>Journal of the American Ceramic Society</i> , 1986 , 69, C-206-C-207	3.8	33
154	Drying gels. <i>Journal of Non-Crystalline Solids</i> , 1987 , 91, 83-100	3.9	33
153	Molecular mechanisms causing anomalously high thermal expansion of nanoconfined water. <i>ChemPhysChem</i> , 2008 , 9, 1997-2001	3.2	32
152	Dynamic pressurization method for measuring permeability and modulus: I. theory. <i>Materials and Structures/Materiaux Et Constructions</i> , 2006 , 39, 1041-1057	3.4	32
151	Thermal Expansion Kinetics: Method to Measure Permeability of Cementitious Materials: I, Theory. <i>Journal of the American Ceramic Society</i> , 2004 , 83, 2753-2761	3.8	31

150	Evaluation of drying methods by nitrogen adsorption. <i>Cement and Concrete Research</i> , 2019 , 120, 13-26	10.3	30
149	Role of clay minerals in the physicomaterial deterioration of sandstone. <i>Journal of Geophysical Research</i> , 2008 , 113,		30
148	Influence of Viscoelasticity and Permeability on the Stress Response of Silica Gel. <i>Langmuir</i> , 1996 , 12, 1109-1116	4	30
147	Viscous Sintering with a Pore-Size Distribution and Rigid Inclusions. <i>Journal of the American Ceramic Society</i> , 1988 , 71, C447-C448	3.8	30
146	Direct Measurements of 3D Structure, Chemistry and Mass Density During the Induction Period of CS Hydration. <i>Cement and Concrete Research</i> , 2016 , 89, 14-26	10.3	30
145	Supercritical drying of cementitious materials. <i>Cement and Concrete Research</i> , 2017 , 99, 137-154	10.3	29
144	Hydration and percolation at the setting point. <i>Cement and Concrete Research</i> , 2012 , 42, 665-672	10.3	29
143	Mechanisms of damage by salt. <i>Geological Society Special Publication</i> , 2010 , 331, 61-77	1.7	29
142	Stress and fracture during drying of gels. <i>Journal of Non-Crystalline Solids</i> , 1990 , 121, 104-109	3.9	29
141	Calcium phosphate coatings for marble conservation: Influence of ethanol and isopropanol addition to the precipitation medium on the coating microstructure and performance. <i>Corrosion Science</i> , 2018 , 136, 255-267	6.8	28
140	Resistance to simulated rain of hydroxyapatite- and calcium oxalate-based coatings for protection of marble against corrosion. <i>Corrosion Science</i> , 2017 , 127, 168-174	6.8	28
139	Densification kinetics and structural evolution during sintering of silica aerogel. <i>Journal of Non-Crystalline Solids</i> , 1998 , 240, 118-130	3.9	28
138	Drying 1990 , 452-513		28
137	Dynamic pressurization: novel method for measuring fluid permeability. <i>Journal of Non-Crystalline Solids</i> , 2003 , 325, 34-47	3.9	27
136	Stress from crystallization of salt in pores 2000 , 187-194		27
135	Relaxation of a viscoelastic gel bar: I. theory. <i>Journal of Sol-Gel Science and Technology</i> , 1994 , 1, 169-175	2.3	27
134	Mechanics of syneresis II. Experimental study. <i>Journal of Non-Crystalline Solids</i> , 1989 , 108, 28-36	3.9	27
133	Thermal Stresses in Clad-Glass Fibers. <i>Journal of the American Ceramic Society</i> , 1980 , 63, 346-347	3.8	27

132	Viscoelastic-Elastic Composites: II, Sandwich Seal. <i>Journal of the American Ceramic Society</i> , 1982 , 65, 399-406	3.8	27
131	Acid-Resistant Coatings on Marble. <i>Journal of the American Ceramic Society</i> , 2016 , 99, 3421-3428	3.8	27
130	Studying AEA interaction in cement systems using tensiometry. <i>Cement and Concrete Research</i> , 2017 , 92, 29-36	10.3	26
129	Drying gels. <i>Journal of Non-Crystalline Solids</i> , 1988 , 99, 324-358	3.9	26
128	Direct observation of void evolution during cement hydration. <i>Materials and Design</i> , 2017 , 136, 137-149	8.1	25
127	Concreteite abrasion mechanics. <i>Cement and Concrete Research</i> , 2015 , 73, 79-95	10.3	25
126	Analysis of C-S-H growth rates in supersaturated conditions. <i>Cement and Concrete Research</i> , 2018 , 103, 236-244	10.3	25
125	Use of a dissociative potential to simulate hydration of Na ⁺ and Cl ⁻ ions. <i>Journal of Physical Chemistry B</i> , 2009 , 113, 9886-93	3.4	25
124	Investigation of concrete workability through characterization of aggregate gradation in hardened concrete using X-ray computed tomography. <i>Cement and Concrete Composites</i> , 2019 , 98, 150-161	8.6	24
123	Nucleation of sodium sulfate heptahydrate on mineral substrates studied by nuclear magnetic resonance. <i>Journal of Crystal Growth</i> , 2012 , 338, 166-169	1.6	24
122	Carbonation of wellbore cement by CO ₂ diffusion from caprock. <i>International Journal of Greenhouse Gas Control</i> , 2009 , 3, 731-735	4.2	24
121	Evidence of anomalous thermal expansion of water in cement paste. <i>Cement and Concrete Research</i> , 2005 , 35, 57-66	10.3	24
120	Structural Evolution of Sol-Gel Glasses. <i>Journal of the Ceramic Association Japan</i> , 1987 , 95, 31-54		24
119	Optimization of the rapid supercritical extraction process for aerogels. <i>Journal of Non-Crystalline Solids</i> , 2002 , 311, 259-272	3.9	23
118	Relaxation of a viscoelastic gel bar: II. Silica gel. <i>Journal of Sol-Gel Science and Technology</i> , 1994 , 2, 199-204	3.5	22
117	Drying gels. <i>Journal of Non-Crystalline Solids</i> , 1987 , 91, 101-121	3.9	22
116	Penetration depth and redistribution of an aqueous ammonium phosphate solution used for porous limestone consolidation by brushing and immersion. <i>Construction and Building Materials</i> , 2017 , 148, 571-578	6.7	21
115	Kinetic analysis of C-S-H growth on calcite. <i>Cement and Concrete Research</i> , 2018 , 103, 226-235	10.3	20

114	Effect of precursor and hydrolysis conditions on drying shrinkage. <i>Journal of Non-Crystalline Solids</i> , 1997 , 221, 135-143	3.9	20
113	Coarsening in a Viscous Matrix. <i>Journal of the American Ceramic Society</i> , 2005 , 81, 49-54	3.8	20
112	Bending of gel beams: Effect of deflection rate and Hertzian indentation. <i>Journal of Non-Crystalline Solids</i> , 1996 , 201, 1-25	3.9	20
111	Measuring permeability by the thermal expansion method for rigid or highly permeable gels. <i>Journal of Sol-Gel Science and Technology</i> , 1994 , 3, 31-40	2.3	20
110	Thermal stresses in a cylinder: Application to optical waveguide blanks. <i>Journal of Non-Crystalline Solids</i> , 1979 , 34, 223-238	3.9	20
109	Leakage of CO ₂ Through Abandoned Wells 2005 , 827-848		19
108	Glasses and ceramics from colloids. <i>Journal of Non-Crystalline Solids</i> , 1985 , 73, 661-667	3.9	19
107	Experimental and modeling study of calcium carbonate precipitation and its effects on the degradation of oil well cement during carbonated brine exposure. <i>Cement and Concrete Research</i> , 2018 , 113, 1-12	10.3	18
106	Durable Self-Cleaning Coatings for Architectural Surfaces by Incorporation of TiO ₂ Nano-Particles into Hydroxyapatite Films. <i>Materials</i> , 2018 , 11,	3.5	18
105	Bending of a poroelastic beam with lateral diffusion. <i>International Journal of Solids and Structures</i> , 2009 , 46, 3451-3462	3.1	18
104	Conversion of calcium sulfate dihydrate into calcium phosphates as a route for conservation of gypsum stuccoes and sulfated marble. <i>Construction and Building Materials</i> , 2018 , 170, 290-301	6.7	17
103	Measurement and simulation of dendritic growth of ice in cement paste. <i>Cement and Concrete Research</i> , 2010 , 40, 1393-1402	10.3	17
102	Sintering Aerogels. <i>Journal of Sol-Gel Science and Technology</i> , 1998 , 13, 937-943	2.3	17
101	Particulate Sols and Gels 1990 , 234-301		17
100	Measuring Permeability of Rigid Materials by a Beam-Bending Method: V, Isotropic Rectangular Plates of Cement Paste. <i>Journal of the American Ceramic Society</i> , 2005 , 87, 1927-1931	3.8	16
99	Using X-ray computed tomography to investigate mortar subjected to freeze-thaw cycles. <i>Cement and Concrete Composites</i> , 2020 , 108, 103520	8.6	15
98	Prediction of the degree of hydration at initial setting time of cement paste with particle agglomeration. <i>Cement and Concrete Research</i> , 2012 , 42, 1280-1285	10.3	15
97	Adsorption in Sparse Networks. <i>Journal of Colloid and Interface Science</i> , 1998 , 202, 399-410	9.3	15

96	Thermal Expansion Kinetics: Method to Measure Permeability of Cementitious Materials, IV. Effect of Thermal Gradients and Viscoelasticity. <i>Journal of the American Ceramic Society</i> , 2005 , 88, 1213-1221	3.8	15
95	Hydration and Crystallization Pressure of Sodium Sulfate: a Critical Review. <i>Materials Research Society Symposia Proceedings</i> , 2002 , 712, 221		15
94	Bulk Properties of a Cyanogel Network: Toward an Understanding of the Elastic, Mechanical, and Physical Processes Associated with Sol-Gel Processing of Cyanide-Bridged Gel Systems. <i>Chemistry of Materials</i> , 1998 , 10, 825-832	9.6	15
93	The sintering of silica aerogels studied by thermoporometry. <i>Journal of Sol-Gel Science and Technology</i> , 1994 , 2, 277-281	2.3	15
92	Stress-optical effects in optical waveguides. <i>Journal of Non-Crystalline Solids</i> , 1980 , 38-39, 201-204	3.9	15
91	Viscoelastic-Elastic Composites: III, Bead Seal. <i>Journal of the American Ceramic Society</i> , 1982 , 65, 419-425	3.8	15
90	Viscoelastic Analysis of the Split Ring Seal. <i>Journal of the American Ceramic Society</i> , 1983 , 66, 135-139	3.8	15
89	An Ideal Solid Solution Model for C-S-H. <i>Journal of the American Ceramic Society</i> , 2016 , 99, 4137-4145	3.8	15
88	Bowing of marble slabs: can the phenomenon be arrested and prevented by inorganic treatments?. <i>Environmental Earth Sciences</i> , 2018 , 77, 1	2.9	15
87	Measuring chemical shrinkage of ordinary Portland cement pastes with high water-to-cement ratios by adding cellulose nanofibrils. <i>Cement and Concrete Composites</i> , 2020 , 111, 103625	8.6	14
86	Viscosity of bimodal suspensions with hard spherical particles. <i>Journal of Applied Physics</i> , 2014 , 116, 184902	9.2	14
85	Reply to the discussion by S. Chatterji of the paper, "Crystallization in pores" <i>Cement and Concrete Research</i> , 2000 , 30, 673-675	10.3	14
84	Viscoelasticity and permeability of silica gels. <i>Faraday Discussions</i> , 1995 , 101, 225	3.6	14
83	Stress induced dissolution and time-dependent deformation of portland cement paste. <i>Materials and Design</i> , 2018 , 157, 314-325	8.1	13
82	Direct in-situ observation of early age void evolution in sustainable cement paste containing fly ash or limestone. <i>Composites Part B: Engineering</i> , 2019 , 175, 107099	10	13
81	Dangling bond deflection model: growth of gel network with loop structure. <i>Physical Review E</i> , 2002 , 65, 041403	2.4	13
80	Drying gels. <i>Journal of Non-Crystalline Solids</i> , 1987 , 92, 122-144	3.9	13
79	Adsorption in Sparse Networks. <i>Journal of Colloid and Interface Science</i> , 1998 , 202, 411-416	9.3	12

78	Microstructure, Orientation, and Properties of Sol-Gel-Derived KTiOPO ₄ Thin Films. <i>Journal of the American Ceramic Society</i> , 1995 , 78, 2033-2044	3.8	12
77	Stress in Leached Phase-Separated Glass. <i>Journal of the American Ceramic Society</i> , 1985 , 68, 419-426	3.8	12
76	Characterization of swelling in clay-bearing stone 2005 ,		11
75	Structural relaxation in gel-derived glasses. <i>Journal of Non-Crystalline Solids</i> , 1986 , 82, 191-197	3.9	11
74	Viscoelastic Analysis of Thermal Stresses in a Composite Sphere. <i>Journal of the American Ceramic Society</i> , 1983 , 66, 59-65	3.8	11
73	Factors affecting crystallization pressure 2004 ,		11
72	Viscous Sintering of Inorganic Gels 1987 , 265-300		11
71	New method for controllable accelerated aging of marble: Use for testing of consolidants. <i>Journal of the American Ceramic Society</i> , 2018 , 101, 4146-4157	3.8	10
70	Sol-gel synthesis of potassium titanyl phosphate: Solution chemistry and gelation. <i>Journal of Sol-Gel Science and Technology</i> , 1997 , 9, 183-199	2.3	10
69	Poromechanics analysis of a flow-through permeameter with entrapped air. <i>Cement and Concrete Research</i> , 2008 , 38, 368-378	10.3	10
68	Characterization of saturated porous bodies. <i>Materials and Structures/Materiaux Et Constructions</i> , 2004 , 37, 21-30	3.4	10
67	Structural Evolution during Consolidation 1990 , 514-615		10
66	Multi-scale observations of structure and chemical composition changes of portland cement systems during hydration. <i>Construction and Building Materials</i> , 2019 , 212, 486-499	6.7	9
65	Impact of activator chemistry on permeability of alkali-activated slags. <i>Journal of the American Ceramic Society</i> , 2017 , 100, 4848-4859	3.8	9
64	Flaw propagation and buckling in clay-bearing sandstones. <i>Environmental Earth Sciences</i> , 2011 , 63, 1565-1572	15.7	9
63	Structural Efficiency and Microstructural Modeling of Wet Gels and Aerogels. <i>Journal of Sol-Gel Science and Technology</i> , 1998 , 13, 957-960	2.3	9
62	Dilatational Relaxation in Cylindrical Seals. <i>Journal of the American Ceramic Society</i> , 1982 , 65, 491-496	3.8	9
61	Model of Structural Relaxation in Glass with Variable Coefficients. <i>Journal of the American Ceramic Society</i> , 1982 , 65, c94-c96	3.8	9

60	Mechanisms of salt scaling. <i>Materials and Structures/Materiaux Et Constructions</i> , 2005 , 38, 479-488	3.4	9
59	Some Recent Findings On Marble Conservation By Aqueous Solutions Of Diammonium Hydrogen Phosphate. <i>MRS Advances</i> , 2017 , 2, 2021-2026	0.7	8
58	Stress from re-immersion of partially dried gel. <i>Journal of Non-Crystalline Solids</i> , 1997 , 212, 268-280	3.9	8
57	Bending a gel rod with an impermeable surface. <i>Journal of Non-Crystalline Solids</i> , 1996 , 204, 73-77	3.9	8
56	Determination of water permeability for a moisture transport model with minimized batch effect. <i>Construction and Building Materials</i> , 2018 , 191, 193-205	6.7	8
55	Novel methodology to evaluate displacement efficiency of drilling mud using fluorescence in primary cementing. <i>Journal of Petroleum Science and Engineering</i> , 2018 , 165, 647-654	4.4	7
54	On-site monitoring for better selection of stone repairs: a case study. <i>Heritage Science</i> , 2016 , 4,	2.5	7
53	Preliminary Results of the Use of Hydroxyapatite as a Consolidant for Carbonate Stones. <i>Materials Research Society Symposia Proceedings</i> , 2011 , 1319, 1		7
52	Interaction of formic acid with the silica gel network. <i>Journal of Sol-Gel Science and Technology</i> , 1997 , 8, 165-171	2.3	7
51	Thermal expansion of a viscoelastic gel. <i>Journal of Sol-Gel Science and Technology</i> , 1995 , 4, 169-177	2.3	7
50	Stone consolidation: a critical discussion of theoretical insights and field practice. <i>RILEM Technical Letters</i> , 4 , 145-153		7
49	Weathering 2006 , 299-312		7
48	Effect of casing surface roughness on the removal efficiency of non-aqueous drilling fluids. <i>Journal of Natural Gas Science and Engineering</i> , 2018 , 51, 155-165	4.6	6
47	Molecular Dynamics Investigation of Solution Structure between NaCl and Quartz Crystals. <i>Journal of Physical Chemistry C</i> , 2011 , 115, 19724-19732	3.8	6
46	Structure and permeability of gels. <i>Journal of Sol-Gel Science and Technology</i> , 1994 , 2, 239-244	2.3	6
45	Viscoelastic thermal stress analysis. <i>Journal of Non-Crystalline Solids</i> , 1983 , 54, 223-240	3.9	6
44	Contamination of Oil-Well Cement with Conventional and Microemulsion Spacers. <i>SPE Journal</i> , 2020 , 25, 3002-3016	3.1	6
43	A new hypothesis for air loss in cement systems containing fly ash. <i>Cement and Concrete Research</i> , 2021 , 142, 106352	10.3	6

42	Physical and chemical effects of isopropanol exchange in cement-based materials. <i>Cement and Concrete Research</i> , 2021 , 145, 106461	10.3	6
41	Crack Engineering in Thick Coatings Prepared by Spray Pyrolysis Deposition. <i>Journal of the American Ceramic Society</i> , 2013 , 96, 420-428	3.8	5
40	Understanding boundary condition effects on the corrosion kinetics of class H well cement. <i>Energy Procedia</i> , 2011 , 4, 5370-5376	2.3	5
39	Aging of Gels 1990 , 356-405		5
38	Structural Effect on the Plastic Behavior in Highly Porous Glasses. <i>Key Engineering Materials</i> , 2009 , 423, 15-24	0.4	4
37	Gelation 1990 , 302-355		4
36	Drying Mechanics of Gels. <i>Materials Research Society Symposia Proceedings</i> , 1986 , 73, 225		4
35	Thermal stresses in optical fibers: Fluid core assumption. <i>Journal of Non-Crystalline Solids</i> , 1982 , 51, 323-332	3.32	4
34	Stress and strain during supercritical drying. <i>Journal of Sol-Gel Science and Technology</i> , 2019 , 90, 8-19	2.3	4
33	Air entraining admixtures: Mechanisms, evaluations, and interactions. <i>Cement and Concrete Research</i> , 2021 , 106557	10.3	4
32	Novel hydroxyapatite-based consolidant and the acceleration of hydrolysis of silicate-based consolidants. <i>Materials Research Society Symposia Proceedings</i> , 2017 , 1656, 9-14		3
31	Clay swelling inhibition mechanism of β -diaminoalkanes in Portland Brownstone. <i>Journal of Materials Research</i> , 2009 , 24, 1646-1652	2.5	3
30	The microstructure of hybrid silica gels and its modification by evaporative and supercritical dryings. <i>Journal of Sol-Gel Science and Technology</i> , 2007 , 44, 211-218	2.3	3
29	Permeability reduction in porous materials by in situ formed silica gel. <i>Journal of Applied Physics</i> , 2007 , 102, 114901	2.5	3
28	Thermal Expansion and Viscosity of Confined Liquids. <i>Materials Research Society Symposia Proceedings</i> , 2003 , 790, 1		3
27	Permeability and Structure of Resorcinol - Formaldehyde Gels. <i>Materials Research Society Symposia Proceedings</i> , 1996 , 431, 497		3
26	Preparation and characterization of sol-gel derived KTiOPO ₄ thin films for integrated optical applications. <i>Journal of Sol-Gel Science and Technology</i> , 1994 , 2, 507-512	2.3	3
25	Effect of Inclusions on Shrinkage. <i>Materials Research Society Symposia Proceedings</i> , 1990 , 180, 503		3

24	Photocatalytic hydroxyapatite-titania nanocomposites for preventive conservation of marble. <i>IOP Conference Series: Materials Science and Engineering</i> , 2018 , 364, 012073	0.4	3
23	New insights on protective treatments for marble by FIB-SEM. <i>IOP Conference Series: Materials Science and Engineering</i> , 2018 , 364, 012092	0.4	3
22	New polymer-based treatments for the prevention of damage by salt crystallization in stone. <i>Materials and Structures/Materiaux Et Constructions</i> , 2019 , 52, 1	3.4	2
21	Sintering of Sol-Gel Films. <i>Journal of Sol-Gel Science and Technology</i> , 1997 , 8, 353-363	2.3	2
20	Hygric Swelling of Portland Brownstone. <i>Materials Research Society Symposia Proceedings</i> , 2002 , 712, 241		2
19	Thermal expansion of a gel layer on a rigid substrate. <i>Journal of Non-Crystalline Solids</i> , 1996 , 204, 118-124.9		2
18	Syneresis in Silica Gel. <i>Materials Research Society Symposia Proceedings</i> , 1988 , 121, 179		2
17	Thermo-Mechanical Compatibility of Viscoelastic Mortars for Stone Repair. <i>Materials</i> , 2016 , 9,	3.5	2
16	Supersaturation in Porous Media 2013 ,		1
15	Pressure from Crystallization in Pore Channels 2013 ,		1
14	LUCI: A facility at DUSEL for large-scale experimental study of geologic carbon sequestration. <i>Energy Procedia</i> , 2011 , 4, 5050-5057	2.3	1
13	Controlling Swelling of Portland Brownstone. <i>Materials Research Society Symposia Proceedings</i> , 2007 , 1047, 3		1
12	Effect of Drying on Viscoelasticity and Permeability of Gel. <i>Materials Research Society Symposia Proceedings</i> , 1994 , 346, 209		1
11	Mechanics of Gels. <i>Materials Research Society Symposia Proceedings</i> , 1992 , 271, 527		1
10	Comparison of Gel-derived and Conventional Ceramics 1990 , 744-785		1
9	Stress-induced index profile distortion in optical waveguides: correction. <i>Applied Optics</i> , 1980 , 19, 2656	1.7	1
8	Viscous Sintering 2021 , 265-269		1
7	Glass Formation and Relaxation		1

- 6 Sintering **1990**, 674-742 o
- 5 Nucleation, Growth and Evolution of Hydroxyapatite Films on Calcite. *Materials Research Society Symposia Proceedings*, **2017**, 1656, 3-8
- 4 Interaction of Formic Acid with the Silica Gel Network. *Journal of Sol-Gel Science and Technology*, **1997**, 8, 165-171 2.3
- 3 Modeling of Sol-Gel Transition with Loop Network Formation and its Implications on Mechanical Properties. *Materials Research Society Symposia Proceedings*, **2001**, 677, 7101
- 2 Theory of Deformation and Flow in Gels **1990**, 406-451
- 1 Viscoelastic Analysis of Stresses in Composites. *Treatise on Materials Science and Technology*, **1985**, 26, 245-318