

Frank Winnefeld

List of Publications by Year in descending order

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104
papers

13,234
citations

34493

54
h-index

34195

103
g-index

105
all docs

105
docs citations

105
times ranked

6052
citing authors

#	ARTICLE	IF	CITATIONS
1	Carbonated wollastonite – An effective supplementary cementitious material?. Journal of Microscopy, 2022, 286, 120-125.	0.8	8
2	Hydration of blended cement with high volume iron-rich slag from non-ferrous metallurgy. Cement and Concrete Research, 2022, 151, 106624.	4.6	33
3	Influence of aluminum sulfate on properties and hydration of magnesium potassium phosphate cements. Cement and Concrete Research, 2022, 156, 106788.	4.6	22
4	Report of RILEM TC 267-TRM phase 3: validation of the R3 reactivity test across a wide range of materials. Materials and Structures/Materiaux Et Constructions, 2022, 55, .	1.3	32
5	Influence of shotcrete accelerators on the hydration of cement pastes and their impact on sulfate resistance. Construction and Building Materials, 2021, 266, 120782.	3.2	15
6	Sulfate resistance and phase composition of shotcrete. Tunnelling and Underground Space Technology, 2021, 109, 103760.	3.0	7
7	Sulfate resistance testing of shotcrete – Sample preparation in the field and under laboratory conditions. Construction and Building Materials, 2021, 276, 122233.	3.2	2
8	Effect of temperature curing on properties and hydration of wollastonite blended magnesium potassium phosphate cements. Cement and Concrete Research, 2021, 142, 106370.	4.6	26
9	Mechanisms for efficient clay dispersing effect with tannins and sodium hydroxide. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2021, 630, 127589.	2.3	13
10	Thermodynamic model for ternary OPC/CAC/Calcium Sulfate binders. Construction and Building Materials, 2021, 302, 124120.	3.2	6
11	The influence of calcium sulfate content on the hydration of belite-calcium sulfoaluminate cements with different clinker phase compositions. Materials and Structures/Materiaux Et Constructions, 2021, 54, 1.	1.3	16
12	RILEM TC 247-DTA round robin test: sulfate resistance, alkali-silica reaction and freeze-thaw resistance of alkali-activated concretes. Materials and Structures/Materiaux Et Constructions, 2020, 53, 1.	1.3	30
13	Effect of relative humidity on the carbonation rate of portlandite, calcium silicate hydrates and ettringite. Cement and Concrete Research, 2020, 135, 106116.	4.6	116
14	Influence of wollastonite on hydration and properties of magnesium potassium phosphate cements. Cement and Concrete Research, 2020, 131, 106012.	4.6	53
15	Advances in understanding ye'elimitite-rich cements. Cement and Concrete Research, 2019, 123, 105778.	4.6	91
16	Thermodynamic data for magnesium (potassium) phosphates. Applied Geochemistry, 2019, 111, 104450.	1.4	66
17	Seasonal heat storage in calcium sulfoaluminate based hardened cement pastes – experiences with different prototypes. Journal of Energy Storage, 2019, 25, 100850.	3.9	8
18	Synthesis and characterisation of calcium sulfoaluminate cements produced by different chemical gypsums. Advances in Cement Research, 2019, 31, 113-123.	0.7	26

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19	Influence of magnesium-to-phosphate ratio and water-to-cement ratio on hydration and properties of magnesium potassium phosphate cements. <i>Cement and Concrete Research</i> , 2019, 123, 105781.	4.6	120
20	Further studies of the hydration of MgO-hydromagnesite blends. <i>Cement and Concrete Research</i> , 2019, 126, 105912.	4.6	54
21	Further insights into calcium sulfoaluminate cement expansion. <i>Advances in Cement Research</i> , 2019, 31, 160-177.	0.7	46
22	Reaction mechanism of magnesium potassium phosphate cement with high magnesium-to-phosphate ratio. <i>Cement and Concrete Research</i> , 2018, 108, 140-151.	4.6	135
23	A fresh look at dense clay paste: Deflocculation and thixotropy mechanisms. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2018, 539, 252-260.	2.3	31
24	Hydration of calcium aluminate cement blended with anhydrite. <i>Advances in Cement Research</i> , 2018, 30, 24-36.	0.7	24
25	Outcomes of the round robin tests of RILEM TC 247-DTA on the durability of alkali-activated concrete. <i>MATEC Web of Conferences</i> , 2018, 199, 02024.	0.1	3
26	RILEM TC-238 SCM recommendation on hydration stoppage by solvent exchange for the study of hydrate assemblages. <i>Materials and Structures/Materiaux Et Constructions</i> , 2018, 51, 1.	1.3	117
27	Reactivity tests for supplementary cementitious materials: RILEM TC 267-TRM phase 1. <i>Materials and Structures/Materiaux Et Constructions</i> , 2018, 51, 1.	1.3	144
28	Silica Aerogelâ€Epoxy Nanocomposites: Understanding Epoxy Reinforcement in Terms of Aerogel Surface Chemistry and Epoxyâ€Silica Interface Compatibility. <i>ACS Applied Nano Materials</i> , 2018, 1, 4179-4189.	2.4	35
29	Report of TC 238-SCM: hydration stoppage methods for phase assemblage studies of blended cementsâ€results of a round robin test. <i>Materials and Structures/Materiaux Et Constructions</i> , 2018, 51, 1.	1.3	132
30	Carbonation resistance of mortar produced with alternative cements. <i>Materials and Structures/Materiaux Et Constructions</i> , 2018, 51, 1.	1.3	24
31	Early hydration of SCM-blended Portland cements: A pore solution and isothermal calorimetry study. <i>Cement and Concrete Research</i> , 2017, 93, 71-82.	4.6	145
32	Role of calcium on chloride binding in hydrated Portland cementâ€metakaolinâ€limestone blends. <i>Cement and Concrete Research</i> , 2017, 95, 205-216.	4.6	207
33	Outcomes of the RILEM round robin on degree of reaction of slag and fly ash in blended cements. <i>Materials and Structures/Materiaux Et Constructions</i> , 2017, 50, 1.	1.3	101
34	Influence of fly ash on the hydration of calcium sulfoaluminate cement. <i>Cement and Concrete Research</i> , 2017, 95, 152-163.	4.6	142
35	Effect of aging on silica aerogel properties. <i>Microporous and Mesoporous Materials</i> , 2017, 241, 293-302.	2.2	111
36	The effect of glass composition on the reactivity of synthetic glasses. <i>Journal of the American Ceramic Society</i> , 2017, 100, 2553-2567.	1.9	67

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37	Carbonation of calcium sulfoaluminate mortars. Cement and Concrete Composites, 2017, 80, 123-134.	4.6	134
38	Synthesis and hydration of alite-calcium sulfoaluminate cement. Advances in Cement Research, 2017, 29, 101-111.	0.7	36
39	Using gypsum to control hydration kinetics of CSA cements. Construction and Building Materials, 2017, 155, 154-163.	3.2	116
40	4. Thermodynamic modelling of cement hydration: Portland cements " blended cements " calcium sulfoaluminate cements. , 2017, , 103-144.		3
41	Lime as an Anti-Plasticizer for Self-Compacting Clay Concrete. Materials, 2016, 9, 330.	1.3	44
42	Precipitation of anionic emulsifier with ordinary Portland cement. Journal of Colloid and Interface Science, 2016, 479, 98-105.	5.0	27
43	Stability of ettringite in CSA cement at elevated temperatures. Advances in Cement Research, 2016, 28, 251-261.	0.7	46
44	Influence of Cement on Rheology and Stability of Rosin Emulsified Anionic Bitumen Emulsion. Journal of Materials in Civil Engineering, 2016, 28, .	1.3	23
45	Chemical activation of hybrid binders based on siliceous fly ash and Portland cement. Cement and Concrete Composites, 2016, 66, 10-23.	4.6	99
46	Impact of rapid-hardening cements on mechanical properties of cement bitumen emulsion asphalt. Materials and Structures/Materiaux Et Constructions, 2016, 49, 487-498.	1.3	65
47	Contribution of limestone to the hydration of calcium sulfoaluminate cement. Cement and Concrete Composites, 2015, 62, 204-211.	4.6	130
48	ASR prevention " Effect of aluminum and lithium ions on the reaction products. Cement and Concrete Research, 2015, 76, 192-201.	4.6	50
49	Thermal behaviour of autoclaved aerated concrete exposed to fire. Cement and Concrete Composites, 2015, 62, 52-58.	4.6	45
50	Hydration of quaternary Portland cement blends containing blast-furnace slag, siliceous fly ash and limestone powder. Cement and Concrete Composites, 2015, 55, 374-382.	4.6	278
51	Influence of slag composition on the hydration of alkali-activated slags. Journal of Sustainable Cement-Based Materials, 2015, 4, 85-100.	1.7	53
52	Hygrical shrinkage stresses in tiling systems: Numerical modeling combined with field studies. Cement and Concrete Composites, 2015, 55, 1-10.	4.6	15
53	Reactivity of Calcined Clay in Alite-Calcium Sulfoaluminate Cement Hydration. RILEM Bookseries, 2015, , 373-379.	0.2	1
54	Calcium Sulfoaluminate Sodalite ($\text{Ca}_4\text{Al}_6\text{O}_{12}\text{SO}_4$) Crystal Structure Evaluation and Bulk Modulus Determination. Journal of the American Ceramic Society, 2014, 97, 892-898.	1.9	36

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55	Influence of superabsorbent polymers on hydration of cement pastes with low water-to-binder ratio. Journal of Thermal Analysis and Calorimetry, 2014, 115, 425-432.	2.0	137
56	Impact of particle size on interaction forces between ettringite and dispersing comb-polymers in various electrolyte solutions. Journal of Colloid and Interface Science, 2014, 419, 17-24.	5.0	32
57	AAM Concretes: Standards for Mix Design/Formulation and Early-Age Properties. RILEM State-of-the-Art Reports, 2014, , 157-176.	0.3	3
58	Durability and Testing â€“ Chemical Matrix Degradation Processes. RILEM State-of-the-Art Reports, 2014, , 177-221.	0.3	6
59	Durability and Testing â€“ Degradation via Mass Transport. RILEM State-of-the-Art Reports, 2014, , 223-276.	0.3	12
60	Hydration of Portland cement with additions of calcium sulfoaluminates. Cement and Concrete Research, 2013, 43, 81-94.	4.6	190
61	Effect of temperature on the hydration of Portland cement blended with siliceous fly ash. Cement and Concrete Research, 2013, 52, 169-181.	4.6	193
62	Quantification of fly ash in hydrated, blended Portland cement pastes by backscattered electron imaging. Journal of Microscopy, 2013, 251, 188-204.	0.8	57
63	Hydration of Portland cement with high replacement by siliceous fly ash. Cement and Concrete Research, 2012, 42, 1389-1400.	4.6	387
64	Stability in the system $\text{CaO-Al}_2\text{O}_3\text{-H}_2\text{O}$. Cement and Concrete Research, 2012, 42, 1621-1634.	4.6	192
65	Tricalcium Silicate Hydration Reaction in the Presence of Comb-Shaped Superplasticizers: Boundary Nucleation and Growth Model Applied to Polymer-Modified Pastes. Journal of Physical Chemistry C, 2012, 116, 10887-10895.	1.5	43
66	Merging High Doxorubicin Loading with Pronounced Magnetic Response and Bioâ€‘repellent Properties in Hybrid Drug Nanocarriers. Small, 2012, 8, 2381-2393.	5.2	39
67	Polymer dispersions and their interaction with mortar constituents and ceramic tile surfaces studied by zeta-potential measurements and atomic force microscopy. Cement and Concrete Composites, 2012, 34, 604-611.	4.6	9
68	Influence of shrinkage and water transport mechanisms on microstructure and crack formation of tile adhesive mortars. Cement and Concrete Research, 2012, 42, 39-50.	4.6	36
69	Influence of slag chemistry on the hydration of alkali-activated blast-furnace slag â€“ Part II: Effect of Al_2O_3 . Cement and Concrete Research, 2012, 42, 74-83.	4.6	406
70	Beneficial use of limestone filler with calcium sulphoaluminate cement. Construction and Building Materials, 2012, 26, 619-627.	3.2	165
71	Moisture induced length changes of tile adhesive mortars and their impact on adhesion strength. Construction and Building Materials, 2012, 30, 426-438.	3.2	27
72	Reaction of clinker surfaces investigated with atomic force microscopy. Construction and Building Materials, 2012, 35, 92-96.	3.2	16

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73	Characterization of Polycarboxylate-ether Based Superplasticizer on Cement Clinker Surfaces. Journal of the American Ceramic Society, 2012, 95, 2189-2195.	1.9	34
74	Quantification of hydration phases in supersulfated cements: review and new approaches. Advances in Cement Research, 2011, 23, 265-275.	0.7	84
75	Alkali-Silica Reaction: the Influence of Calcium on Silica Dissolution and the Formation of Reaction Products. Journal of the American Ceramic Society, 2011, 94, 1243-1249.	1.9	129
76	Hydration Degree of Alkali-activated Slags: A ²⁹ Si NMR Study. Journal of the American Ceramic Society, 2011, 94, 4541-4547.	1.9	120
77	Hydration kinetics of tricalcium silicate by calorimetric methods. Journal of Colloid and Interface Science, 2011, 364, 118-124.	5.0	30
78	Advances in alternative cementitious binders. Cement and Concrete Research, 2011, 41, 1232-1243.	4.6	1,232
79	Influence of activator type on hydration kinetics, hydrate assemblage and microstructural development of alkali activated blast-furnace slags. Cement and Concrete Research, 2011, 41, 301-310.	4.6	720
80	Multi-method approach to study influence of superplasticizers on cement suspensions. Cement and Concrete Research, 2011, 41, 1058-1066.	4.6	103
81	Influence of the calcium sulphate source on the hydration mechanism of Portland cement-calcium sulfoaluminate clinker-calcium sulphate binders. Cement and Concrete Composites, 2011, 33, 551-561.	4.6	124
82	Influence of slag chemistry on the hydration of alkali-activated blast-furnace slag - Part I: Effect of MgO. Cement and Concrete Research, 2011, 41, 955-963.	4.6	534
83	Calorimetric and thermogravimetric study on the influence of calcium sulfate on the hydration of ye-élite. Journal of Thermal Analysis and Calorimetry, 2010, 101, 949-957.	2.0	250
84	Simultaneous measurements of heat of hydration and chemical shrinkage on hardening cement pastes. Journal of Thermal Analysis and Calorimetry, 2010, 101, 925-932.	2.0	65
85	Interaction of cement model systems with superplasticizers investigated by atomic force microscopy, zeta potential, and adsorption measurements. Journal of Colloid and Interface Science, 2010, 347, 15-24.	5.0	198
86	The ternary system Portland cement-calcium sulfoaluminate clinker-anhydrite: Hydration mechanism and mortar properties. Cement and Concrete Composites, 2010, 32, 497-507.	4.6	204
87	Hydration of calcium sulfoaluminate cements - Experimental findings and thermodynamic modelling. Cement and Concrete Research, 2010, 40, 1239-1247.	4.6	602
88	Assessment of phase formation in alkali activated low and high calcium fly ashes in building materials. Construction and Building Materials, 2010, 24, 1086-1093.	3.2	172
89	Interaction of polycarboxylate-based superplasticizers with cements containing different C3A amounts. Cement and Concrete Composites, 2009, 31, 153-162.	4.6	255
90	Solid solution between Al-ettringite and Fe-ettringite (Ca ₆ [Al _{1-x} Fe _x (OH) ₆] ₂ (SO ₄) ₃ ·26H ₂ O). Cement and Concrete Research, 2009, 39, 482-489.	4.6	107

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91	Adsorption of polyelectrolytes and its influence on the rheology, zeta potential, and microstructure of various cement and hydrate phases. <i>Journal of Colloid and Interface Science</i> , 2008, 323, 301-312.	5.0	314
92	The microstructure of dispersed and non-dispersed fresh cement pastes – New insight by cryo-microscopy. <i>Cement and Concrete Research</i> , 2008, 38, 522-529.	4.6	117
93	Hydration mechanisms of super sulphated slag cement. <i>Cement and Concrete Research</i> , 2008, 38, 983-992.	4.6	198
94	In situ nanomanipulators as a tool to separate individual tobermorite crystals for AFM studies. <i>Ultramicroscopy</i> , 2007, 107, 1068-1077.	0.8	5
95	Effect of temperature on the pore solution, microstructure and hydration products of Portland cement pastes. <i>Cement and Concrete Research</i> , 2007, 37, 483-491.	4.6	541
96	Correlating cement characteristics with rheology of paste. <i>Cement and Concrete Research</i> , 2007, 37, 1502-1511.	4.6	64
97	Effects of the molecular architecture of comb-shaped superplasticizers on their performance in cementitious systems. <i>Cement and Concrete Composites</i> , 2007, 29, 251-262.	4.6	409
98	The effect of viscosity modifying agents on mortar and concrete. <i>Cement and Concrete Composites</i> , 2007, 29, 341-349.	4.6	178
99	Evaluation of the consistency of fiber reinforced cementitious composites. <i>Materials and Structures/Materiaux Et Constructions</i> , 2007, 39, 645-654.	1.3	10
100	How clayey fines in aggregates influence the properties of lime mortars. <i>Materials and Structures/Materiaux Et Constructions</i> , 2007, 39, 433-443.	1.3	13
101	Hydration of alkali-activated slag: comparison with ordinary Portland cement. <i>Advances in Cement Research</i> , 2006, 18, 119-128.	0.7	256
102	Thermodynamic modelling of the hydration of Portland cement. <i>Cement and Concrete Research</i> , 2006, 36, 209-226.	4.6	665
103	Effect of the addition of ultrafine cement and short fiber reinforcement on shrinkage, rheological and mechanical properties of Portland cement pastes. <i>Cement and Concrete Composites</i> , 2004, 26, 541-549.	4.6	67
104	Phase equilibria in the system $\text{Ca}_4\text{Al}_6\text{O}_{12}\text{S}_4 \leftrightarrow \text{Ca}_2\text{SiO}_4 \leftrightarrow \text{CaSO}_4 \leftrightarrow \text{H}_2\text{O}$ referring to the hydration of calcium sulfoaluminate cements. <i>RILEM Technical Letters</i> , 0, 1, 10-16.	0.0	74