Mateusz Wyrzykowski

List of Publications by Year
in descending order

55 papers	3,082 citations	94381 37 h-index	175177 52 g-index
55 all docs	55 docs citations	55 times ranked	1692 citing authors

#	Article	IF	Citations
1	Effect of internal curing by using superabsorbent polymers (SAP) on autogenous shrinkage and other properties of a high-performance fine-grained concrete: results of a RILEM round-robin test. Materials and Structures/Materiaux Et Constructions, 2014, 47, 541-562.	1.3	175
2	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
3	An investigation on the use of zeolite aggregates for internal curing of concrete. Construction and Building Materials, 2013, 40, 135-144.	3.2	134
4	Effect of superabsorbent polymers (SAP) on the freezeâ€"thaw resistance of concrete: results of a RILEM interlaboratory study. Materials and Structures/Materiaux Et Constructions, 2017, 50, 1.	1.3	117
5	Characterization of magnesium silicate hydrate (M-S-H). Cement and Concrete Research, 2019, 116, 309-330.	4.6	113
6	Testing superabsorbent polymer (SAP) sorption properties prior to implementation in concrete: results of a RILEM Round-Robin Test. Materials and Structures/Materiaux Et Constructions, 2018, 51, 1.	1.3	112
7	Internal curing with lightweight aggregate produced from biomass-derived waste. Cement and Concrete Research, 2014, 59, 24-33.	4.6	111
8	Prediction of self-desiccation in low water-to-cement ratio pastes based on pore structure evolution. Cement and Concrete Research, 2013, 49, 38-47.	4.6	110
9	Controlling the coefficient of thermal expansion of cementitious materials â€" A new application for superabsorbent polymers. Cement and Concrete Composites, 2013, 35, 49-58.	4.6	82
10	Internal curing with superabsorbent polymers of different chemical structures. Cement and Concrete Research, 2019, 123, 105789.	4.6	81
11	Recent progress in superabsorbent polymers for concrete. Cement and Concrete Research, 2022, 151, 106648.	4.6	80
12	Effect of relative humidity decrease due to self-desiccation on the hydration kinetics of cement. Cement and Concrete Research, 2016, 85, 75-81.	4.6	79
13	Internal curing of high performance mortars with bottom ash. Cement and Concrete Composites, 2016, 71, 1-9.	4.6	79
14	Modeling of Water Migration during Internal Curing with Superabsorbent Polymers. Journal of Materials in Civil Engineering, 2012, 24, 1006-1016.	1.3	76
15	Water Redistribution within the Microstructure of Cementitious Materials due to Temperature Changes Studied with ¹H NMR. Journal of Physical Chemistry C, 2017, 121, 27950-27962.	1.5	76
16	Modeling of internal curing in maturing mortar. Cement and Concrete Research, 2011, 41, 1349-1356.	4.6	71
17	Internal curing by superabsorbent polymers in alkali-activated slag. Cement and Concrete Research, 2020, 135, 106123.	4.6	71
18	Application of super absorbent polymers (SAP) in concrete constructionâ€"update of RILEM state-of-the-art report. Materials and Structures/Materiaux Et Constructions, 2021, 54, 1.	1.3	68

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19	Plastic shrinkage of mortars with shrinkage reducing admixture and lightweight aggregates studied by neutron tomography. Cement and Concrete Research, 2015, 73, 238-245.	4.6	66
20	Moisture dependence of thermal expansion in cement-based materials at early ages. Cement and Concrete Research, 2013, 53, 25-35.	4.6	60
21	Susceptibility of Portland cement and blended cement concretes to plastic shrinkage cracking. Cement and Concrete Composites, 2018, 85, 44-55.	4.6	59
22	Shrinkage and creep of high-performance concrete based on calcium sulfoaluminate cement. Cement and Concrete Composites, 2019, 98, 61-73.	4.6	57
23	Basic creep of cement paste at early age - the role of cement hydration. Cement and Concrete Research, 2019, 116, 191-201.	4.6	56
24	Estimation of reaction kinetics of geopolymers at early ages. Cement and Concrete Research, 2020, 129, 105971.	4.6	53
25	Microstructure development and autogenous shrinkage of mortars with C-S-H seeding and internal curing. Cement and Concrete Research, 2020, 129, 105967.	4.6	53
26	The effect of external load on internal relative humidity in concrete. Cement and Concrete Research, 2014, 65, 58-63.	4.6	52
27	Pore structure of mortars with cellulose ether additions â€" Mercury intrusion porosimetry study. Cement and Concrete Composites, 2014, 53, 25-34.	4.6	52
28	Expansive high-performance concrete for chemical-prestress applications. Cement and Concrete Research, 2018, 107, 275-283.	4.6	49
29	A novel method to predict internal relative humidity in cementitious materials by 1 H NMR. Cement and Concrete Research, 2018, 104, 80-93.	4.6	49
30	On the mechanism of plastic shrinkage cracking in fresh cementitious materials. Cement and Concrete Research, 2019, 115, 251-263.	4.6	48
31	A poromechanics model for plastic shrinkage of fresh cementitious materials. Cement and Concrete Research, 2018, 109, 120-132.	4.6	47
32	Corrugated tube protocol for autogenous shrinkage measurements: review and statistical assessment. Materials and Structures/Materiaux Et Constructions, 2017, 50, 1.	1.3	46
33	Recommendation of RILEM TC 260-RSC: using superabsorbent polymers (SAP) to mitigate autogenous shrinkage. Materials and Structures/Materiaux Et Constructions, 2018, 51, 1.	1.3	45
34	Modeling alkaliâ€"silica reaction in non-isothermal, partially saturated cement based materials. Computer Methods in Applied Mechanics and Engineering, 2012, 225-228, 95-115.	3.4	44
35	Mechanisms of internal curing water release from retentive and non-retentive superabsorbent polymers in cement paste. Cement and Concrete Research, 2021, 147, 106494.	4.6	44
36	Evaluation of the ultimate drying shrinkage of cement-based mortars with poroelastic models. Materials and Structures/Materiaux Et Constructions, 2017, 50, 1.	1.3	41

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37	Young's modulus and creep of calcium-silicate-hydrate compacts measured by microindentation. Cement and Concrete Research, 2020, 134, 106104.	4.6	41
38	Water Redistributionâ€"Microdiffusion in Cement Paste under Mechanical Loading Evidenced by ¹H NMR. Journal of Physical Chemistry C, 2019, 123, 16153-16163.	1.5	38
39	Intrinsic viscoelasticity of C-S-H assessed from basic creep of cement pastes. Cement and Concrete Research, 2019, 121, 11-20.	4.6	37
40	The bleeding test: A simple method for obtaining the permeability and bulk modulus of fresh concrete. Cement and Concrete Research, 2016, 89, 249-256.	4.6	32
41	Using neutron radiography to assess water absorption in air entrained mortar. Construction and Building Materials, 2016, 110, 98-105.	3.2	30
42	The effect of superabsorbent polymers on the mitigation of plastic shrinkage cracking of conventional concrete, results of an inter-laboratory test by RILEM TC 260-RSC. Materials and Structures/Materiaux Et Constructions, 2020, 53, 1.	1.3	26
43	Performance of passive methods in plastic shrinkage cracking mitigation. Cement and Concrete Composites, 2018, 91, 148-155.	4.6	24
44	Autogenous and drying shrinkage of mortars based on Portland and calcium sulfoaluminate cements. Materials and Structures/Materiaux Et Constructions, 2020, 53, 1.	1.3	23
45	Low clinker high performance concretes and their potential in CFRP-prestressed structural elements. Cement and Concrete Composites, 2019, 100, 130-138.	4.6	22
46	Prediction of autogenous shrinkage of cement pastes as poro-visco-elastic deformation. Cement and Concrete Research, 2019, 126, 105917.	4.6	21
47	Modeling Hygro-thermal Performance and Strains of Cementitious Building Materials Maturing in Variable Conditions. Journal of Building Physics, 2008, 31, 301-318.	1.2	18
48	Pore structure of mortars with cellulose ether additions â€" Study of the air-void structure. Cement and Concrete Composites, 2015, 62, 117-124.	4.6	18
49	A practical approach for reducing the risk of plastic shrinkage cracking of concrete. RILEM Technical Letters, 0, 2, 40-44.	0.0	18
50	Visco-elastic behavior of blended cement pastes at early ages. Cement and Concrete Composites, 2020, 107, 103497.	4.6	14
51	Chemical prestressing of high-performance concrete reinforced with CFRP tendons. Composite Structures, 2020, 239, 112031.	3.1	11
52	Kinetics of Water Migration in Cement-Based Systems Containing Superabsobent Polymers. , 2012, , 21-37.		10
53	Plastic shrinkage of mortars cured with a paraffin-based compound â€" Bimodal neutron/X-ray tomography study. Cement and Concrete Research, 2021, 140, 106289.	4.6	5
54	Thermal Properties. RILEM State-of-the-Art Reports, 2019, , 47-67.	0.3	1

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55	M&S highlight: BaÅ¾ant and Baweja (1995), Creep and shrinkage prediction model for analysis and design of concrete structuresâ€”model B3. Materials and Structures/Materiaux Et Constructions, 2022, 55, 1.	1.3	0