Ippei Maruyama

List of Publications by Year in descending order

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47 papers	2,337 citations	186209 28 h-index	233338 45 g-index
48 all docs	48 docs citations	48 times ranked	1482 citing authors

#	Article	IF	Citations
1	Effect of curing temperature and type of cement on early-age shrinkage of high-performance concrete. Cement and Concrete Research, 2001, 31, 1867-1872.	4.6	185
2	Microstructural and bulk property changes in hardened cement paste during the first drying process. Cement and Concrete Research, 2014, 58, 20-34.	4.6	177
3	Flexural Behavior of Reinforced Recycled Concrete Beams. Journal of Advanced Concrete Technology, 2007, 5, 43-61.	0.8	169
4	A new model for the C-S-H phase formed during the hydration of Portland cements. Cement and Concrete Research, 2017, 97, 95-106.	4.6	136
5	Properties of early-age concrete relevant to cracking in massive concrete. Cement and Concrete Research, 2019, 123, 105770.	4.6	119
6	Application of Conventionally Recycled Coarse Aggregate to Concrete Structure by Surface Modification Treatment. Journal of Advanced Concrete Technology, 2007, 5, 13-25.	0.8	116
7	Dynamic microstructural evolution of hardened cement paste during first drying monitored by 1H NMR relaxometry. Cement and Concrete Research, 2019, 122, 107-117.	4.6	106
8	Strength and Young's modulus change in concrete due to long-term drying and heating up to 90Â°C. Cement and Concrete Research, 2014, 66, 48-63.	4.6	99
9	Quantification of water penetration into concrete through cracks by neutron radiography. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2009, 605, 154-158.	0.7	79
10	Origin of Drying Shrinkage of Hardened Cement Paste: Hydration Pressure. Journal of Advanced Concrete Technology, 2010, 8, 187-200.	0.8	77
11	Bimodal behavior of C-S-H interpreted from short-term length change and water vapor sorption isotherms of hardened cement paste. Cement and Concrete Research, 2015, 73, 158-168.	4.6	77
12	Development of Soundness Assessment Procedure for Concrete Members Affected by Neutron and Gamma-Ray Irradiation. Journal of Advanced Concrete Technology, 2017, 15, 440-523.	0.8	68
13	Cement Reaction and Resultant Physical Properties of Cement Paste. Journal of Advanced Concrete Technology, 2014, 12, 200-213.	0.8	58
14	Review of the Current State of Knowledge on the Effects of Radiation on Concrete. Journal of Advanced Concrete Technology, 2016, 14, 368-383.	0.8	57
15	Temperature dependence of autogenous shrinkage of silica fume cement pastes with a very low waterâ€“binder ratio. Cement and Concrete Research, 2013, 50, 41-50.	4.6	56
16	Microstructural changes in white Portland cement paste under the first drying process evaluated by WAXS, SAXS, and USAXS. Cement and Concrete Research, 2017, 91, 24-32.	4.6	56
17	Early post-mortem formation of carbonate concretions around tusk-shells over week-month timescales. Scientific Reports, 2015, 5, 14123.	1.6	53
18	Strain and crack distribution in concrete during drying. Materials and Structures/Materiaux Et Constructions, 2014, 47, 517-532.	1.3	49

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19	Early Age Deformation and Resultant Induced Stress in Expansive High Strength Concrete. Journal of Advanced Concrete Technology, 2004, 2, 155-174.	0.8	45
20	Cavitation of water in hardened cement paste under short-term desorption measurements. Materials and Structures/Materiaux Et Constructions, 2018, 51, 1.	1.3	43
21	Impact of gamma-ray irradiation on hardened white Portland cement pastes exposed to atmosphere. Cement and Concrete Research, 2018, 108, 59-71.	4.6	41
22	Influence of mineral composition of siliceous rock on its volume change. Construction and Building Materials, 2015, 94, 701-709.	3.2	39
23	Impact of aggregate properties on the development of shrinkage-induced cracking in concrete under restraint conditions. Cement and Concrete Research, 2016, 85, 82-101.	4.6	39
24	Numerical Study on Drying Shrinkage of Concrete Affected by Aggregate Size. Journal of Advanced Concrete Technology, 2014, 12, 279-288.	0.8	37
25	Impact of time-dependant thermal expansion coefficient on the early-age volume changes in cement pastes. Cement and Concrete Research, 2011, 41, 380-391.	4.6	36
26	Fe-oxide concretions formed by interacting carbonate and acidic waters on Earth and Mars. Science Advances, 2018, 4, eaau0872.	4.7	33
27	Evaluation of water transfer from saturated lightweight aggregate to cement paste matrix by neutron radiography. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2009, 605, 159-162.	0.7	32
28	A Numerical Model for Concrete Strength Change under Neutron and Gamma-ray Irradiation. Journal of Advanced Concrete Technology, 2016, 14, 144-162.	0.8	29
29	Role of alcohol-ethylene oxide polymers on the reduction of shrinkage of cement paste. Cement and Concrete Research, 2018, 111, 157-168.	4.6	23
30	Mechanism of Change in Splitting Tensile Strength of Concrete during Heating or Drying up to 90Â°C. Journal of Advanced Concrete Technology, 2015, 13, 94-102.	0.8	23
31	Numerical Approach towards Aging Management of Concrete Structures: Material Strength Evaluation in a Massive Concrete Structure under One-Sided Heating. Journal of Advanced Concrete Technology, 2015, 13, 500-527.	0.8	20
32	Change in Relative Density of Natural Rock Minerals Due to Electron Irradiation. Journal of Advanced Concrete Technology, 2016, 14, 706-716.	0.8	17
33	Evaluation of Irradiation Effects on Concrete Structure: Background and Preparation of Neutron Irradiation Test. , 2013, , .		16
34	Strain and thermal expansion coefficients of various cement pastes during hydration at early ages. Materials and Structures/Materiaux Et Constructions, 2014, 47, 27-37.	1.3	16
35	RATE OF HYDRATION OF ALITE AND BELITE IN PORTLAND CEMENT. Journal of Structural and Construction Engineering, 2010, 75, 681-688.	0.2	15
36	Feedback System of Ion Transfer through Cracks During Deterioration of Mortar Due to Sulfate Attack Evaluated by RBSM-Truss Network Model. Journal of Advanced Concrete Technology, 2017, 15, 610-626.	0.8	13

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37	Effect of water-retaining lightweight aggregate on the reduction of thermal expansion coefficient in mortar subject to temperature histories. Cement and Concrete Composites, 2012, 34, 1124-1129.	4.6	12
38	Effects of heating and drying on the strength and stiffness of high-early-strength Portland cement pastes. Cement and Concrete Composites, 2020, 106, 103455.	4.6	12
39	Stress distribution and crack formation in full-scaled ultra-high strength concrete columns. Materials and Structures/Materiaux Et Constructions, 2012, 45, 1829-1847.	1.3	11
40	Ionic conductive and photocatalytic properties of cementitious materials: calcium silicate hydrate and calcium aluminoferrite. Journal of Materials Chemistry A, 2020, 8, 15157-15166.	5.2	10
41	Reply to Zhou et al.'s â€œA discussion of the paper â€œDynamic microstructural evaluation of hardened cement paste during first drying monitored by 1H NMR relaxometryâ€â€. Cement and Concrete Research, 2020, 137, 106219.	4.6	10
42	FUNDAMENTAL STUDY ON WATER TRANSFER IN PORTLAND CEMENT PASTE. Journal of Structural and Construction Engineering, 2011, 76, 1737-1744.	0.2	9
43	Numerical study on the shear failure behavior of RC beams subjected to drying. Nuclear Engineering and Design, 2019, 351, 203-211.	0.8	9
44	Characterization of irradiation-induced novel voids in Î±-quartz. AIP Advances, 2020, 10, 125212.	0.6	5
45	Impact of TiO₂ Nanoparticles on Drying Shrinkage of Hardened Cement Paste. Journal of Advanced Concrete Technology, 2018, 16, 272-281.	0.8	3
46	Control of cracking in full-scaled columns made of ultra-high-strength concrete. Materials and Structures/Materiaux Et Constructions, 2015, 48, 1627-1643.	1.3	1
47	Micro Xâ€ray diffraction and elemental study on Alâ€tobermorite formation in aged modern concrete. Journal of the American Ceramic Society, 2022, 105, 6924-6937.	1.9	1