Jan Olek

List of Publications by Year in Descending Order

46 papers	2,364 citations	28 h-index	46 g-index
46 ext. papers	2,808 ext. citations	6.5 avg, IF	5.53 L-index

#	Paper	IF	Citations
46	Amino acids as performance-controlling additives in carbonation-activated cementitious materials. *Cement and Concrete Research*, **2021**, 147, 106501	10.3	6
45	Full-Scale Laboratory Evaluation of the Effectiveness of Subgrade Soil Stabilization Practices for Portland Cement Concrete Pavements Patching Applications. *Transportation Research Record*, **2020**, 2674, 465-474	1.7	
44	Effects of Air-Cooled Blast Furnace Slag Aggregate on Pore Solution Chemistry of Cementitious Systems. *Journal of Materials in Civil Engineering*, **2020**, 32, 04019317	3	
43	Phase evolution and strength development during carbonation of low-lime calcium silicate cement (CSC). *Construction and Building Materials*, **2019**, 210, 473-482	6.7	12
42	Elucidating the accelerated carbonation products of calcium silicates using multi-technique approach. *Journal of CO2 Utilization*, **2018**, 23, 61-74	7.6	59
41	The influence of air cooled blast furnace slag (ACBFS) aggregate on the concentration of sulfates in concrete pore solution. *Construction and Building Materials*, **2018**, 168, 394-403	6.7	4
40	Carbonation activated binders from pure calcium silicates: Reaction kinetics and performance controlling factors. *Cement and Concrete Composites*, **2018**, 93, 85-98	8.6	35
39	Additive Manufacturing and Performance of Architectured Cement-Based Materials. *Advanced Materials*, **2018**, 30, e1802123	24	41
38	Cements in the 21 Century: Challenges, Perspectives, and Opportunities. *Journal of the American Ceramic Society*, **2017**, 100, 2746-2773	3.8	104
37	Stress-dependent behavior and rutting resistance of modified asphalt binders: An MSCR approach. *Construction and Building Materials*, **2017**, 157, 635-646	6.7	48
36	Microscopic features of non-hydraulic calcium silicate cement paste and mortar. *Cement and Concrete Research*, **2017**, 100, 361-372	10.3	40
35	Rheological properties of asphalt binders modified with styrene-butadiene-styrene (SBS), ground tire rubber (GTR), or polyphosphoric acid (PPA). *Construction and Building Materials*, **2017**, 151, 464-478	6.7	123
34	Reclaimed Asphalt Pavement Limits to Meet Surface Frictional Requirements. *Journal of Materials in Civil Engineering*, **2016**, 28, 04015069	3	2
33	High-Temperature Properties of Asphalt Binders: Comparison of Multiple Stress Creep Recovery and Performance Grading Systems. *Transportation Research Record*, **2016**, 2574, 131-143	1.7	38
32	Carbonation behavior of hydraulic and non-hydraulic calcium silicates: potential of utilizing low-lime calcium silicates in cement-based materials. *Journal of Materials Science*, **2016**, 51, 6173-6191	4.3	126
31	Multiscale characterization of carbonated wollastonite paste and application of homogenization schemes to predict its effective elastic modulus. *Cement and Concrete Composites*, **2016**, 72, 284-298	8.6	40
30	The effects of lithium ions on chemical sequence of alkali-silica reaction. *Cement and Concrete Research*, **2016**, 79, 159-168	10.3	28

29	Carbonation Reaction Kinetics, CO2 Sequestration Capacity, and Microstructure of Hydraulic and Non-Hydraulic Cementitious Binders **2016**,		6
28	Effects of High Temperature on Carbonated Calcium Silicate Cement (CSC) and Ordinary Portland Cement (OPC) Paste **2016**,		3
27	Modeling of early age loss of lithium ions from pore solution of cementitious systems treated with lithium nitrate. *Cement and Concrete Research*, **2015**, 67, 204-214	10.3	6
26	Pavement Concrete with Air-Cooled Blast Furnace Slag and Dolomite as Coarse Aggregates: Effects of Deicers and Freeze-Thaw Cycles. *Transportation Research Record*, **2015**, 2508, 55-64	1.7	10
25	Alkali‐silica reaction: Kinetics of chemistry of pore solution and calcium hydroxide content in cementitious system. *Cement and Concrete Research*, **2015**, 71, 36-45	10.3	50
24	Chemical Sequence and Kinetics of Alkali‐Silica Reaction Part II. A Thermodynamic Model. *Journal of the American Ceramic Society*, **2014**, 97, 2204-2212	3.8	29
23	Chemical Sequence and Kinetics of Alkali-Silica Reaction Part I. Experiments. *Journal of the American Ceramic Society*, **2014**, 97, 2195-2203	3.8	37
22	Effects of Sample Preparation and Interpretation of Thermogravimetric Curves on Calcium Hydroxide in Hydrated Pastes and Mortars. *Transportation Research Record*, **2012**, 2290, 10-18	1.7	129
21	Role of Potassium Acetate Deicer in Accelerating Alkali‐Silica Reaction in Concrete Pavements: Relationship Between Laboratory and Field Studies. *Transportation Research Record*, **2011**, 2240, 70-79	1.7	9
20	An investigation into the influence of inter-aggregate spacing and the extent of the ITZ on properties of Portland cement concretes. *Cement and Concrete Research*, **2010**, 40, 1601-1608	10.3	58
19	Closure to "Study of the Effectiveness of Cement Kiln Dusts in Stabilizing Na-Montmorillonite Clay" by Sulapha Peethamparan and Jan Olek. *Journal of Materials in Civil Engineering*, **2009**, 21, 707-708	3	0
18	Mechanism of stabilization of Na-montmorillonite clay with cement kiln dust. *Cement and Concrete Research*, **2009**, 39, 580-589	10.3	59
17	Long-Term Monitoring of Noise and Frictional Properties of Three Pavements: Dense-Graded Asphalt, Stone Matrix Asphalt, and Porous Friction Course. *Transportation Research Record*, **2009**, 2127, 12-19	1.7	32
16	Physicochemical Behavior of Cement Kiln Dust–Treated Kaolinite Clay. *Transportation Research Record*, **2008**, 2059, 80-88	1.7	19
15	Influence of Curing Conditions on Strength Development and Strength Predictive Capability of Maturity Method: Laboratory and Field-Made Ternary Concretes. *Transportation Research Record*, **2008**, 2070, 49-58	1.7	2
14	Effect of Mixture Composition and Initial Curing Conditions on Scaling Resistance of Ternary (OPC/FA/SF) Concrete. *Journal of Materials in Civil Engineering*, **2008**, 20, 668-677	3	6
13	Study of the Effectiveness of Cement Kiln Dusts in Stabilizing Na-Montmorillonite Clay. *Journal of Materials in Civil Engineering*, **2008**, 20, 137-146	3	52
12	Influence of chemical and physical characteristics of cement kiln dusts (CKDs) on their hydration behavior and potential suitability for soil stabilization. *Cement and Concrete Research*, **2008**, 38, 803-815	10.3	82

11	Modified ASTM C 1293 Test Method to Investigate Potential of Potassium Acetate Deicer Solution to Cause Alkali-Silica Reaction. *Transportation Research Record*, **2007**, 2020, 50-60	1.7	9
10	Characterizing Enhanced Porosity Concrete using electrical impedance to predict acoustic and hydraulic performance. *Cement and Concrete Research*, **2006**, 36, 2074-2085	10.3	170
9	Influence of lightweight aggregate on the microstructure and durability of mortar. *Cement and Concrete Research*, **2005**, 35, 1368-1376	10.3	101
8	Acoustic performance and damping behavior of cellulose□ement composites. *Cement and Concrete Composites*, **2004**, 26, 359-370	8.6	63
7	Mechanism of sulfate attack: a fresh look. *Cement and Concrete Research*, **2003**, 33, 341-346	10.3	210
6	Influence of aggregate size, water cement ratio and age on the microstructure of the interfacial transition zone. *Cement and Concrete Research*, **2003**, 33, 1837-1849	10.3	208
5	Mechanism of sulfate attack: A fresh look. *Cement and Concrete Research*, **2002**, 32, 915-921	10.3	237
4	Studies on delayed ettringite formation in early-age, heat-cured mortars. *Cement and Concrete Research*, **2002**, 32, 1729-1736	10.3	29
3	Studies on delayed ettringite formation in heat-cured mortars: II. Characteristics of cement that may be susceptible to DEF. *Cement and Concrete Research*, **2002**, 32, 1737-1742	10.3	31
2	Analysis of the Multiple Stress Creep Recovery Asphalt Binder Test and Specifications for Use in Indiana		11
1	Influence of Bridge Fires on the Properties of Concrete and Steel Components. *Transportation Research Record*,036119812110363	1.7	