

# David A Lange

## List of Publications by Year in descending order

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64  
papers

2,851  
citations

304602

22  
h-index

168321

53  
g-index

71  
all docs

71  
docs citations

71  
times ranked

2454  
citing authors

#	ARTICLE	IF	CITATIONS
1	Properties of interfacial transition zones in recycled aggregate concrete tested by nanoindentation. <i>Cement and Concrete Composites</i> , 2013, 37, 276-292.	4.6	429
2	Mercury Intrusion Porosimetry and Image Analysis of Cement-Based Materials. <i>Journal of Colloid and Interface Science</i> , 1999, 211, 39-44.	5.0	359
3	Image analysis techniques for characterization of pore structure of cement-based materials. <i>Cement and Concrete Research</i> , 1994, 24, 841-853.	4.6	220
4	Comparison of two processes for treating rice husk ash for use in high performance concrete. <i>Cement and Concrete Research</i> , 2009, 39, 773-778.	4.6	163
5	Tensile basic creep of early-age concrete under constant load. <i>Cement and Concrete Research</i> , 2001, 31, 1895-1899.	4.6	126
6	Computational investigation on mass diffusivity in Portland cement paste based on X-ray computed microtomography (µCT) image. <i>Construction and Building Materials</i> , 2012, 27, 472-481.	3.2	123
7	Relationship between Fracture Surface Roughness and Fracture Behavior of Cement Paste and Mortar. <i>Journal of the American Ceramic Society</i> , 1993, 76, 589-597.	1.9	122
8	The influence of metakaolin and silica fume on the chemistry of alkali-silica reaction products. <i>Cement and Concrete Composites</i> , 2001, 23, 485-493.	4.6	118
9	Variation of microstructure with carbonation in lime and blended pastes. <i>Applied Surface Science</i> , 2006, 252, 7562-7571.	3.1	112
10	Image-based characterization of cement pore structure using wood's metal intrusion. <i>Cement and Concrete Research</i> , 1998, 28, 1695-1705.	4.6	101
11	Thermal dilation and internal relative humidity of hardened cement paste. <i>Materials and Structures/Materiaux Et Constructions</i> , 2007, 40, 311-317.	1.3	93
12	Internal relative humidity and drying stress gradients in concrete. <i>Materials and Structures/Materiaux Et Constructions</i> , 2006, 39, 901-909.	1.3	76
13	Analysis of surface roughness using confocal microscopy. <i>Journal of Materials Science</i> , 1993, 28, 3879-3884.	1.7	70
14	Simplified method for concrete pavement design with discrete structural fibers. <i>Construction and Building Materials</i> , 2008, 22, 384-393.	3.2	63
15	Dynamic pressurization method for measuring permeability and modulus: II. cementitious materials. <i>Materials and Structures/Materiaux Et Constructions</i> , 2007, 40, 711-721.	1.3	57
16	Fracture of Plain and Fiber-Reinforced Concrete Slabs under Monotonic Loading. <i>Journal of Materials in Civil Engineering</i> , 2004, 16, 452-460.	1.3	54
17	Field validation of models for predicting lateral form pressure exerted by SCC. <i>Cement and Concrete Composites</i> , 2014, 54, 70-79.	4.6	50
18	Measurement of water transport from saturated pumice aggregates to hardening cement paste. <i>Materials and Structures/Materiaux Et Constructions</i> , 2006, 39, 861-868.	1.3	44

#	ARTICLE	IF	CITATIONS
19	Vibration of fresh concrete understood through the paradigm of granular physics. Cement and Concrete Research, 2019, 115, 31-42.	4.6	37
20	Constitutive modeling of the aging viscoelastic properties of portland cement paste. Mechanics of Time-Dependent Materials, 2007, 11, 175-198.	2.3	35
21	Behavior of cement based matrices reinforced by randomly dispersed microfibers. Advanced Cement Based Materials, 1996, 3, 20-30.	0.3	30
22	The viscoelastic response of cement paste to three-dimensional loading. Mechanics of Time-Dependent Materials, 2007, 11, 27-46.	2.3	25
23	Abrasion Resistance and Nanoscratch Behavior of an Ultra-High Performance Concrete. Journal of Materials in Civil Engineering, 2017, 29, .	1.3	22
24	Early-age stress–crack opening relationships for high performance concrete. Cement and Concrete Composites, 2004, 26, 563-572.	4.6	21
25	Quantitative Characterization of the Fracture Surface of Si Single Crystals by Confocal Microscopy. Journal of the American Ceramic Society, 1995, 78, 3201-3208.	1.9	20
26	Quantitative Image Analysis of Masonry Mortar Microstructure. Journal of Computing in Civil Engineering, 1999, 13, 110-115.	2.5	17
27	Early Age Stresses and Debonding in Bonded Concrete Overlays. Transportation Research Record, 2001, 1778, 174-181.	1.0	17
28	3D surface image analysis for fracture modeling of cement-based materials. Cement and Concrete Research, 2006, 36, 1098-1107.	4.6	16
29	Simulation study on the shear transfer behavior of recycled aggregate concrete. Structural Concrete, 2018, 19, 255-268.	1.5	16
30	Observations of wet cement using electron microscopy. Ultramicroscopy, 1991, 37, 234-238.	0.8	15
31	Investigation of the mechanics of rail seat deterioration and methods to improve the abrasion resistance of concrete sleeper rail seats. Proceedings of the Institution of Mechanical Engineers, Part F: Journal of Rail and Rapid Transit, 2014, 228, 581-589.	1.3	14
32	Modeling Drying Shrinkage Stress Gradients in Concrete. Cement, Concrete and Aggregates, 2004, 26, 1-8.	0.1	14
33	Fracture mechanics modeling using images of fracture surfaces. International Journal of Solids and Structures, 1998, 35, 4025-4033.	1.3	13
34	Deflection–crack mouth opening displacement relationship for concrete beams with and without fibres. Magazine of Concrete Research, 2015, 67, 532-540.	0.9	13
35	Crushing Performance of Ultra-Lightweight Foam Concrete with Fine Particle Inclusions. Applied Sciences (Switzerland), 2019, 9, 876.	1.3	11
36	A 3D petrographic analysis for concrete freeze-thaw protection. Cement and Concrete Research, 2020, 128, 105952.	4.6	11

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37	Effects of overlay thickness on surface cracking and debonding in bonded concrete overlays. Canadian Journal of Civil Engineering, 2012, 39, 304-312.	0.7	10
38	Characterization of microstructure evolution of cement paste by micro computed tomography. Journal of Central South University, 2013, 20, 1115-1121.	1.2	9
39	Formwork Pressure of Self-Consolidating Concrete in Tall Wall Field Applications. Transportation Research Record, 2005, 1914, 1-7.	1.0	9
40	Long-Term Strength Development of Pavement Concretes. Journal of Materials in Civil Engineering, 1994, 6, 78-87.	1.3	8
41	Fracture Mechanics Analysis for Saw Cutting Requirements of Concrete Pavements. Transportation Research Record, 2007, 2020, 20-29.	1.0	8
42	Vertical Load Path Under Static and Dynamic Loads in Concrete Crosstie and Fastening Systems. , 2014, , .		8
43	Improved method to measure the strength and elastic modulus of single aggregate particles. Materials and Structures/Materiaux Et Constructions, 2019, 52, 1.	1.3	8
44	Prediction of moisture curling of concrete slab. Materials and Structures/Materiaux Et Constructions, 2011, 44, 787-803.	1.3	7
45	Laboratory Investigation of the Abrasive Wear Mechanism of Concrete Crosstie Rail Seat Deterioration (RSD). , 2012, , .		6
46	Shrinkage and Creep Performance of Recycled Aggregate Concrete. RILEM Bookseries, 2012, , 1333-1340.	0.2	6
47	The Pickett effect at early age and experiment separating its mechanisms in tension. Materials and Structures/Materiaux Et Constructions, 2002, 35, 211-218.	1.3	6
48	Effects of prestressing and saw-cutting on the freeze-thaw durability. Cement and Concrete Composites, 2019, 104, 103418.	4.6	5
49	Framework for Modeling Durability Cost of Structural Systems. Journal of Infrastructure Systems, 1998, 4, 126-133.	1.0	4
50	Early age concrete's properties and performance. Cement and Concrete Composites, 2004, 26, 413-415.	4.6	4
51	Mathematical Model for Durability of Cladding. Journal of Materials in Civil Engineering, 1996, 8, 172-174.	1.3	3
52	Measuring Dynamic Young's Modulus of Low-Density Foam Concrete Using Resonant Frequency Test. Journal of Testing and Evaluation, 2022, 50, 522-533.	0.4	3
53	Field Test Method for Residual Stress in Plain Concrete Pavements and Structures. Journal of Testing and Evaluation, 2014, 42, 761-773.	0.4	3
54	Evaluating the Potential for Damaging Hydraulic Pressure in the Concrete Tie Rail Seat. , 2010, , .		2

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55	Investigation of Material Improvements to Mitigate the Effects of the Abrasion Mechanism of Concrete Crosstie Rail Seat Deterioration. Journal of Transportation Engineering, 2014, 140, 04013009.	0.9	2
56	Relative Proportioning Method for Controlled Low-Strength Material. ACI Materials Journal, 2015, 112, .	0.3	2
57	Mechanical Properties of Concrete Pavement Mixtures with Larger Size Coarse Aggregate. , 2006, , 516.		1
58	Field Testing of Concrete Crossties and Fastening Systems for the Understanding of Mechanistic Behavior. , 2013, , .		1
59	Optimization of Cellular Concrete Microstructure for Improved Impact Resistance. Transportation Research Record, 0, , 036119812110263.	1.0	1
60	Fracture Parameters and Post-Peak Behavior Evaluation under LEFM on Bonded Cement-Based Materials. Key Engineering Materials, 2006, 324-325, 587-590.	0.4	0
61	The Effect of HRWR and AEA on the Air System of Vibrated Concrete. , 2015, , .		0
62	Air Entrainment and the Fabrication of Concrete Railroad Ties. , 2015, , .		0
63	New Field Testing Procedure to Measure Surface Stresses in Plain Concrete Pavements and Structures. , 2012, , 191-200.		0
64	Do We Need a Standard Concrete Fracture Mechanics Test?. Cement, Concrete and Aggregates, 1997, 19, 112-115.	0.1	0