Konstantin Sobolev

List of Publications by Year
in descending order

99	4,351	147566 31	110170 64
papers	citations	h-index	g-index

102	102	102	3987
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Nanotechnology in concrete â€“ A review. Construction and Building Materials, 2010, 24, 2060-2071.	3.2	1,378
2	From superhydrophobicity to icephobicity: forces and interaction analysis. Scientific Reports, 2013, 3, 2194.	1.6	273
3	Cements in the 21st century: Challenges, perspectives, and opportunities. Journal of the American Ceramic Society, 2017, 100, 2746-2773.	1.9	168
4	Self-Assembling Particle-Siloxane Coatings for Superhydrophobic Concrete. ACS Applied Materials & Interfaces, 2013, 5, 13284-13294.	4.0	150
5	Enhancement of the durability characteristics of concrete nanocomposite pipes with modified graphite nanoplatelets. Construction and Building Materials, 2013, 47, 111-117.	3.2	116
6	Utilization of waste glass in ECO-cement: Strength properties and microstructural observations. Waste Management, 2007, 27, 971-976.	3.7	112
7	Evaluation and prediction of bond strength of GFRP-bar reinforced concrete using artificial neural network optimized with genetic algorithm. Composite Structures, 2017, 161, 441-452.	3.1	101
8	The optimization of a gypsum-based composite material. Cement and Concrete Research, 2002, 32, 1725-1728.	4.6	90
9	The development of a new method for the proportioning of high-performance concrete mixtures. Cement and Concrete Composites, 2004, 26, 901-907.	4.6	89
10	Dynamics of Droplet Impact on Hydrophobic/Icephobic Concrete with the Potential for Superhydrophobicity. Langmuir, 2015, 31, 1437-1444.	1.6	88
11	The effect of fly ash on the rheological properties of bituminous materials. Fuel, 2014, 116, 471-477.	3.4	83
12	Hydrophobic engineered cementitious composites for highway applications. Cement and Concrete Composites, 2015, 57, 68-74.	4.6	80
13	Effect of the cementitious paste density on the performance efficiency of carbon nanofiber in concrete nanocomposite. Construction and Building Materials, 2013, 48, 265-269.	3.2	79
14	Anti-Icing Superhydrophobic Surfaces: Controlling Entropic Molecular Interactions to Design Novel Icephobic Concrete. Entropy, 2016, 18, 132.	1.1	79
15	Photocatalytic hydrophobic concrete coatings to combat air pollution. Catalysis Today, 2016, 259, 228-236.	2.2	75
16	Mechano-chemical modification of cement with high volumes of blast furnace slag. Cement and Concrete Composites, 2005, 27, 848-853.	4.6	71
17	Properties of blended cements with thermally activated kaolin. Construction and Building Materials, 2009, 23, 62-70.	3.2	65
18	Durability of superhydrophobic engineered cementitious composites. Construction and Building Materials, 2015, 81, 291-297.	3.2	62

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19	Application of genetic algorithm for modeling of dense packing of concrete aggregates. Construction and Building Materials, 2010, 24, 1449-1455.	3.2	60
20	Modern developments related to nanotechnology and nanoengineering of concrete. Frontiers of Structural and Civil Engineering, 2016, 10, 131-141.	1.2	60
21	The development of a simulation model of the dense packing of large particulate assemblies. Powder Technology, 2004, 141, 155-160.	2.1	59
22	Evaluation of modified-graphite nanomaterials in concrete nanocomposite based on packing density principles. Construction and Building Materials, 2015, 76, 413-422.	3.2	54
23	Role of cement content on the properties of self-flowing Al2O3 refractory castables. Journal of the European Ceramic Society, 2014, 34, 1365-1373.	2.8	48
24	Ultra-high strength cement-based composites designed with aluminum oxide nano-fibers. Construction and Building Materials, 2019, 220, 177-186.	3.2	45
25	The optimization of aggregate blends for sustainable low cement concrete. Construction and Building Materials, 2015, 93, 627-634.	3.2	44
26	Design and application of controlled low strength materials as a structural fill. Construction and Building Materials, 2014, 53, 425-431.	3.2	37
27	The effect of SiO2 nanoparticles derived from hydrothermal solutions on the performance of portland cement based materials. Frontiers of Structural and Civil Engineering, 2017, 11, 436-445.	1.2	36
28	Effect of Coal Combustion Products on high temperature performance of asphalt mastics. Construction and Building Materials, 2015, 94, 572-578.	3.2	35
29	The diagonal tension behavior of fiber reinforced concrete beams. Cement and Concrete Composites, 2007, 29, 402-408.	4.6	34
30	Performance of Cement Systems with Nano-SiO₂ Particles Produced by Using the Solâ€“Gel Method. Transportation Research Record, 2010, 2141, 10-14.	1.0	34
31	The performance of stress-sensing smart fiber reinforced composites in moist and sodium chloride environments. Composites Part B: Engineering, 2015, 73, 89-95.	5.9	33
32	The influence of mechanical activation by vibro-milling on the early-age hydration and strength development of cement. Cement and Concrete Composites, 2016, 71, 53-62.	4.6	33
33	Effect of a Polyethylhydrosiloxane Admixture on the Durability of Concrete with Supplementary Cementitious Materials. Journal of Materials in Civil Engineering, 2007, 19, 809-819.	1.3	32
34	Evaluation of selected kaolins as raw materials for the Turkish cement and concrete industry. Clay Minerals, 2007, 42, 233-244.	0.2	28
35	Effect of nano-YSZ and nano-ZrO 2 additions on the strength and toughness behavior of self-flowing alumina castables. Ceramics International, 2016, 42, 1847-1855.	2.3	27
36	Optimization of a Computer Simulation Model for Packing of Concrete Aggregates. Particulate Science and Technology, 2008, 26, 380-395.	1.1	24

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37	Assessment of the quantitative accuracy of Rietveld/XRD analysis of crystalline and amorphous phases in fly ash. Analytical Methods, 2017, 9, 2415-2424.	1.3	23
38	Tribological and Wetting Properties of TiO2 Based Hydrophobic Coatings for Ceramics. Journal of Tribology, 2019, 141, .	1.0	23
39	The development of high-strength mortars with improved thermal and acid resistance. Cement and Concrete Research, 2005, 35, 578-583.	4.6	20
40	Nanoâ€Engineered Cements with Enhanced Mechanical Performance. Journal of the American Ceramic Society, 2016, 99, 564-572.	1.9	20
41	Hydrophobic modification of ultra-high-performance fiber-reinforced composites with matrices enhanced by aluminum oxide nano-fibers. Construction and Building Materials, 2020, 244, 118354.	3.2	19
42	The simulation of particulate materials packing using a particle suspension model. Advanced Powder Technology, 2007, 18, 261-271.	2.0	17
43	High Performance Cement: A Solution for Next Millennium. Materials Technology, 1999, 14, 191-193.	1.5	16
44	A simulation model of the dense packing of particulate materials. Advanced Powder Technology, 2004, 15, 365-376.	2.0	16
45	Concrete Embedded Dye-Synthesized Photovoltaic Solar Cell. Scientific Reports, 2013, 3, 2727.	1.6	16
46	Nanotechnology and Nanoengineering of Construction Materials. , 2015, , 3-13.		16
47	Sustainable Development of the Cement Industry and Blended Cements to Meet Ecological Challenges. Scientific World Journal, The, 2003, 3, 308-318.	0.8	15
48	Fractal properties of Apollonian packing of spherical particles. Modelling and Simulation in Materials Science and Engineering, 2006, 14, 789-798.	0.8	15
49	Towards Ultrahigh Performance Concrete Produced with Aluminum Oxide Nanofibers and Reduced Quantities of Silica Fume. Nanomaterials, 2020, 10, 2291.	1.9	15
50	Development of an electromagnetic hydrocyclone separator for purification of wastewater. Water and Environment Journal, 2008, 22, 11-16.	1.0	14
51	Modeling and Experimental Evaluation of Aggregate Packing for Effective Application in Concrete. Journal of Materials in Civil Engineering, 2019, 31, .	1.3	14
52	The fungistatic properties and potential application of by-product fly ash from fluidized bed combustion. Construction and Building Materials, 2018, 159, 351-360.	3.2	13
53	Evaporation of droplets capable of bearing viruses airborne and on hydrophobic surfaces. Journal of Applied Physics, 2021, 129, .	1.1	11
54	Performance of Cement Systems with Nano-SiO₂ Particles Produced Using Sol-gel Method. Materials Research Society Symposia Proceedings, 2010, 1276, 1.	0.1	10

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55	Optimal proportioning of concrete aggregates using a self-adaptive genetic algorithm. Computers and Concrete, 2005, 2, 411-421.	0.7	10
56	Artificial aggregates based on granulated reactive silica powders. Advanced Powder Technology, 2014, 25, 1076-1081.	2.0	8
57	The Development of Hydrophobic and Superhydrophobic Cementitious Composites. , 2014, , .		8
58	Alternative Supplementary Cementitious Materials. RILEM State-of-the-Art Reports, 2018, , 233-282.	0.3	7
59	The Application of Nano-Structured Silica Based Admixture in Gypsum Binders. Materials Research Society Symposia Proceedings, 2014, 1611, 165-170.	0.1	6
60	Changing range genetic algorithm for multimodal function optimisation. International Journal of Bio-Inspired Computation, 2015, 7, 209.	0.6	5
61	The investigation of fly ash based asphalt binders using atomic force microscope. Frontiers of Structural and Civil Engineering, 2017, 11, 380-387.	1.2	5
62	Synthesis of ZnO/TiO2-Based Hydrophobic Antimicrobial Coatings for Steel and Their Roughness, Wetting, and Tribological Characterization. Journal of Tribology, 2022, 144, .	1.0	5
63	Fractal dimension of Apollonian packing of spherical particles. Advanced Powder Technology, 2012, 23, 591-595.	2.0	4
64	The Effect of Silica Polymerization in Fly Ash on the Strength of Geopolymers. Materials Research Society Symposia Proceedings, 2014, 1611, 68-74.	0.1	4
65	Autoclaved Composites with Nanostructured Silica Additive. Materials Research Society Symposia Proceedings, 2014, 1611, 111-116.	0.1	4
66	Self-Consolidating Green Concrete Based on Metakaolin and Aggregate Fines. Materials Research Society Symposia Proceedings, 2014, 1611, 75-80.	0.1	4
67	Characterization of Damage and Aging Resistance of Asphalt Mastics with Coal Combustion By-Products. , 2015, , .		4
68	The Effect of Functionalized Carbon Nanotubes on Phase Composition and Strength of Composites. , 2015, , 245-251.		4
69	Influence of Fe component from milling yield on characteristics of perlite based geopolymers. IOP Conference Series: Materials Science and Engineering, 2019, 560, 012148.	0.3	4
70	Fly Ash - An Important Ingredient for use in Hot-Mix ASHphalt Concrete. , 2016, , .		4
71	Resistivity Signature of Graphene-Based Fiber-Reinforced Composite Subjected to Mechanical Loading. Frontiers in Materials, 2022, 9, .	1.2	4
72	Investigation of strain-sensing materials based on EM surface wave propagation for steel bridge health monitoring. Construction and Building Materials, 2011, 25, 3024-3029.	3.2	3

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73	Scheduling of directed acyclic graphs by a genetic algorithm with a repairing mechanism. Concurrency Computation Practice and Experience, 2017, 29, e3954.	1.4	3
74	Effect of Using Cement Reactive Powders on Rheological Performance of Asphalt Mastics. , 2021, , .		3
75	Durability of Concrete Mixtures Containing Supplementary Cementitious Materials in Rapid Chloride Permeability Test. ACI Materials Journal, 2019, 116, .	0.3	3
76	New Alumosilicate Fillers Based on Sedimentary Rocks for Asphalt Concrete. Materials Research Society Symposia Proceedings, 2014, 1611, 81-87.	0.1	2
77	Cement Composites Reinforced with Functionalized Carbon Nanotubes. Materials Research Society Symposia Proceedings, 2014, 1611, 133-138.	0.1	2
78	Nano-engineered Superhydrophobic and Overhydrophobic Concrete. , 2015, , 443-449.		2
79	Impact of Heavy Vehicles on the Durability of Concrete Bridge Decks. Journal of Bridge Engineering, 2017, 22, .	1.4	2
80	Effect of complex admixtures on cement properties and the development of a test procedure for the evaluation of high-strength cements. Advances in Cement Research, 2003, 15, 67-75.	0.7	2
81	Investigation of the influence of Off-Spec coal combustion waste on asphalt binder rheological performance and aging sensitivity. Cleaner Materials, 2022, 4, 100073.	1.9	2
82	Genetic algorithm for cost optimization of modified multi-component binders. Building and Environment, 2006, 41, 195-203.	3.0	1
83	Freeze-Thaw Resistance of Fiber Reinforced Composites with Superhydrophobic Admixtures. , 2013, , .		1
84	The Efficiency of SiO2 Based Materials in Granulated Artificial Aggregates. Materials Research Society Symposia Proceedings, 2014, 1611, 117-122.	0.1	1
85	Nanoengineered Concrete. , 2016, , 2369-2379.		1
86	Influence of Coal Combustion By-Products Physiochemical Properties on Aging Related Performance of Asphalt Mastics and HMA. , 2017, , .		1
87	The Effect of Cement Reactive Powders on the Mechanical Response of WMA Mixtures. , 2021, , .		1
88	THE EFFECT OF SIO2 NANOPARTICLES ON PERFORMANCE OF CEMENT-BASED MATERIALS. Bulletin of Belgorod State Technological University Named After V G Shukhov, 2018, 3, 6-16.	0.1	1
89	Development of Eco-Cement Containing High Volumes of Waste Glass. , 2004, , 21-26.		0
90	Micromechanical Models of Structural Behavior of Concrete. Materials Research Society Symposia Proceedings, 2010, 1276, 1.	0.1	0

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91	Nanomedicine. , 2012, , 1644-1644.		0
92	Nanostructures for Coloration (Organisms other than Animals). , 2012, , 1790-1803.		0
93	Nano-FET. , 2012, , 1543-1543.		0
94	Data-Driven Coral Reef Rehabilitation Using New Biomimicking, Advanced Materials Artificial Reefs. Marine Technology Society Journal, 2021, 55, 120-121.	0.3	0
95	Tribo-Chemical Activation of Green Eco-Cements. Green Energy and Technology, 2012, , 413-428.	0.4	0
96	Nanoengineered Concrete. , 2015, , 1-11.		0
97	Effect of Spray Dryer Absorbers as Mix Enhancer on HMA Performance. Sustainable Civil Infrastructures, 2018, , 80-95.	0.1	0
98	DesempeÃ±o de compuestos con fibras de alcohol polivinÃlico y nano-fibras/tubos de carbono. , 0, , .		0
99	Top-Down Production of Nano-Seeds from Activated Fly Ash Tuned for Enhancing the Early Strength in Blended Cements. Nanomaterials, 2022, 12, 2347.	1.9	0