

# Konstantin Sobolev

## List of Publications by Year in descending order

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Version: 2024-02-01

99  
papers

4,351  
citations

147801

31  
h-index

110387

64  
g-index

102  
all docs

102  
docs citations

102  
times ranked

3987  
citing authors

#	ARTICLE	IF	CITATIONS
1	Nanotechnology in concrete – A review. <i>Construction and Building Materials</i> , 2010, 24, 2060-2071.	7.2	1,378
2	From superhydrophobicity to icephobicity: forces and interaction analysis. <i>Scientific Reports</i> , 2013, 3, 2194.	3.3	273
3	Cements in the 21 <sup>st</sup> century: Challenges, perspectives, and opportunities. <i>Journal of the American Ceramic Society</i> , 2017, 100, 2746-2773.	3.8	168
4	Self-Assembling Particle-Siloxane Coatings for Superhydrophobic Concrete. <i>ACS Applied Materials &amp; Interfaces</i> , 2013, 5, 13284-13294.	8.0	150
5	Enhancement of the durability characteristics of concrete nanocomposite pipes with modified graphite nanoplatelets. <i>Construction and Building Materials</i> , 2013, 47, 111-117.	7.2	116
6	Utilization of waste glass in ECO-cement: Strength properties and microstructural observations. <i>Waste Management</i> , 2007, 27, 971-976.	7.4	112
7	Evaluation and prediction of bond strength of GFRP-bar reinforced concrete using artificial neural network optimized with genetic algorithm. <i>Composite Structures</i> , 2017, 161, 441-452.	5.8	101
8	The optimization of a gypsum-based composite material. <i>Cement and Concrete Research</i> , 2002, 32, 1725-1728.	11.0	90
9	The development of a new method for the proportioning of high-performance concrete mixtures. <i>Cement and Concrete Composites</i> , 2004, 26, 901-907.	10.7	89
10	Dynamics of Droplet Impact on Hydrophobic/Icephobic Concrete with the Potential for Superhydrophobicity. <i>Langmuir</i> , 2015, 31, 1437-1444.	3.5	88
11	The effect of fly ash on the rheological properties of bituminous materials. <i>Fuel</i> , 2014, 116, 471-477.	6.4	83
12	Hydrophobic engineered cementitious composites for highway applications. <i>Cement and Concrete Composites</i> , 2015, 57, 68-74.	10.7	80
13	Effect of the cementitious paste density on the performance efficiency of carbon nanofiber in concrete nanocomposite. <i>Construction and Building Materials</i> , 2013, 48, 265-269.	7.2	79
14	Anti-Icing Superhydrophobic Surfaces: Controlling Entropic Molecular Interactions to Design Novel Icephobic Concrete. <i>Entropy</i> , 2016, 18, 132.	2.2	79
15	Photocatalytic hydrophobic concrete coatings to combat air pollution. <i>Catalysis Today</i> , 2016, 259, 228-236.	4.4	75
16	Mechano-chemical modification of cement with high volumes of blast furnace slag. <i>Cement and Concrete Composites</i> , 2005, 27, 848-853.	10.7	71
17	Properties of blended cements with thermally activated kaolin. <i>Construction and Building Materials</i> , 2009, 23, 62-70.	7.2	65
18	Durability of superhydrophobic engineered cementitious composites. <i>Construction and Building Materials</i> , 2015, 81, 291-297.	7.2	62

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19	Application of genetic algorithm for modeling of dense packing of concrete aggregates. <i>Construction and Building Materials</i> , 2010, 24, 1449-1455.	7.2	60
20	Modern developments related to nanotechnology and nanoengineering of concrete. <i>Frontiers of Structural and Civil Engineering</i> , 2016, 10, 131-141.	2.9	60
21	The development of a simulation model of the dense packing of large particulate assemblies. <i>Powder Technology</i> , 2004, 141, 155-160.	4.2	59
22	Evaluation of modified-graphite nanomaterials in concrete nanocomposite based on packing density principles. <i>Construction and Building Materials</i> , 2015, 76, 413-422.	7.2	54
23	Role of cement content on the properties of self-flowing Al <sub>2</sub> O <sub>3</sub> refractory castables. <i>Journal of the European Ceramic Society</i> , 2014, 34, 1365-1373.	5.7	48
24	Ultra-high strength cement-based composites designed with aluminum oxide nano-fibers. <i>Construction and Building Materials</i> , 2019, 220, 177-186.	7.2	45
25	The optimization of aggregate blends for sustainable low cement concrete. <i>Construction and Building Materials</i> , 2015, 93, 627-634.	7.2	44
26	Design and application of controlled low strength materials as a structural fill. <i>Construction and Building Materials</i> , 2014, 53, 425-431.	7.2	37
27	The effect of SiO <sub>2</sub> nanoparticles derived from hydrothermal solutions on the performance of portland cement based materials. <i>Frontiers of Structural and Civil Engineering</i> , 2017, 11, 436-445.	2.9	36
28	Effect of Coal Combustion Products on high temperature performance of asphalt mastics. <i>Construction and Building Materials</i> , 2015, 94, 572-578.	7.2	35
29	The diagonal tension behavior of fiber reinforced concrete beams. <i>Cement and Concrete Composites</i> , 2007, 29, 402-408.	10.7	34
30	Performance of Cement Systems with Nano-SiO <sub>2</sub> Particles Produced by Using the Sol-Gel Method. <i>Transportation Research Record</i> , 2010, 2141, 10-14.	1.9	34
31	The performance of stress-sensing smart fiber reinforced composites in moist and sodium chloride environments. <i>Composites Part B: Engineering</i> , 2015, 73, 89-95.	12.0	33
32	The influence of mechanical activation by vibro-milling on the early-age hydration and strength development of cement. <i>Cement and Concrete Composites</i> , 2016, 71, 53-62.	10.7	33
33	Effect of a Polyethylhydrosiloxane Admixture on the Durability of Concrete with Supplementary Cementitious Materials. <i>Journal of Materials in Civil Engineering</i> , 2007, 19, 809-819.	2.9	32
34	Evaluation of selected kaolins as raw materials for the Turkish cement and concrete industry. <i>Clay Minerals</i> , 2007, 42, 233-244.	0.6	28
35	Effect of nano-YSZ and nano-ZrO <sub>2</sub> additions on the strength and toughness behavior of self-flowing alumina castables. <i>Ceramics International</i> , 2016, 42, 1847-1855.	4.8	27
36	Optimization of a Computer Simulation Model for Packing of Concrete Aggregates. <i>Particulate Science and Technology</i> , 2008, 26, 380-395.	2.1	24

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37	Assessment of the quantitative accuracy of Rietveld/XRD analysis of crystalline and amorphous phases in fly ash. <i>Analytical Methods</i> , 2017, 9, 2415-2424.	2.7	23
38	Tribological and Wetting Properties of TiO <sub>2</sub> Based Hydrophobic Coatings for Ceramics. <i>Journal of Tribology</i> , 2019, 141, .	1.9	23
39	The development of high-strength mortars with improved thermal and acid resistance. <i>Cement and Concrete Research</i> , 2005, 35, 578-583.	11.0	20
40	Nano-Engineered Cements with Enhanced Mechanical Performance. <i>Journal of the American Ceramic Society</i> , 2016, 99, 564-572.	3.8	20
41	Hydrophobic modification of ultra-high-performance fiber-reinforced composites with matrices enhanced by aluminum oxide nano-fibers. <i>Construction and Building Materials</i> , 2020, 244, 118354.	7.2	19
42	The simulation of particulate materials packing using a particle suspension model. <i>Advanced Powder Technology</i> , 2007, 18, 261-271.	4.1	17
43	High Performance Cement: A Solution for Next Millennium. <i>Materials Technology</i> , 1999, 14, 191-193.	3.0	16
44	A simulation model of the dense packing of particulate materials. <i>Advanced Powder Technology</i> , 2004, 15, 365-376.	4.1	16
45	Concrete Embedded Dye-Synthesized Photovoltaic Solar Cell. <i>Scientific Reports</i> , 2013, 3, 2727.	3.3	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. <i>Scientific World Journal</i> , The, 2003, 3, 308-318.	2.1	15
48	Fractal properties of Apollonian packing of spherical particles. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2006, 14, 789-798.	2.0	15
49	Towards Ultrahigh Performance Concrete Produced with Aluminum Oxide Nanofibers and Reduced Quantities of Silica Fume. <i>Nanomaterials</i> , 2020, 10, 2291.	4.1	15
50	Development of an electromagnetic hydrocyclone separator for purification of wastewater. <i>Water and Environment Journal</i> , 2008, 22, 11-16.	2.2	14
51	Modeling and Experimental Evaluation of Aggregate Packing for Effective Application in Concrete. <i>Journal of Materials in Civil Engineering</i> , 2019, 31, .	2.9	14
52	The fungistatic properties and potential application of by-product fly ash from fluidized bed combustion. <i>Construction and Building Materials</i> , 2018, 159, 351-360.	7.2	13
53	Evaporation of droplets capable of bearing viruses airborne and on hydrophobic surfaces. <i>Journal of Applied Physics</i> , 2021, 129, .	2.5	11
54	Performance of Cement Systems with Nano-SiO <sub>2</sub> Particles Produced Using Sol-gel Method. <i>Materials Research Society Symposia Proceedings</i> , 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.	4.1	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.	0.7	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.	0.9	5
61	The investigation of fly ash based asphalt binders using atomic force microscope. Frontiers of Structural and Civil Engineering, 2017, 11, 380-387.	2.9	5
62	Synthesis of ZnO/TiO <sub>2</sub> -Based Hydrophobic Antimicrobial Coatings for Steel and Their Roughness, Wetting, and Tribological Characterization. Journal of Tribology, 2022, 144, .	1.9	5
63	Fractal dimension of Apollonian packing of spherical particles. Advanced Powder Technology, 2012, 23, 591-595.	4.1	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.	0.6	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, .	2.4	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.	7.2	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.	2.2	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, .	0.2	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, .	2.9	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.	1.6	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.	5.1	2
82	Genetic algorithm for cost optimization of modified multi-component binders. Building and Environment, 2006, 41, 195-203.	6.9	1
83	Freeze-Thaw Resistance of Fiber Reinforced Composites with Superhydrophobic Admixtures. , 2013, , .		1
84	The Efficiency of SiO <sub>2</sub> 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 SiO <sub>2</sub> NANOPARTICLES ON PERFORMANCE OF CEMENT-BASED MATERIALS. Bulletin of Belgorod State Technological University Named After V G Shukhov, 2018, 3, 6-16.	0.3	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.	0.4	0
95	Tribo-Chemical Activation of Green Eco-Cements. Green Energy and Technology, 2012, , 413-428.	0.6	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.	0.2	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.	4.1	0