

# Sergei Vlassov

## List of Publications by Year in descending order

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64  
papers

907  
citations

394286

19  
h-index

552653

26  
g-index

69  
all docs

69  
docs citations

69  
times ranked

1248  
citing authors

#	ARTICLE	IF	CITATIONS
1	Fast-Response Single-Nanowire Photodetector Based on ZnO/WS <sub>2</sub> Core/Shell Heterostructures. ACS Applied Materials & Interfaces, 2018, 10, 13869-13876.	4.0	60
2	Elasticity and yield strength of pentagonal silver nanowires: In situ bending tests. Materials Chemistry and Physics, 2014, 143, 1026-1031.	2.0	50
3	Iron and Nitrogen Co-doped Carbide-derived Carbon and Carbon Nanotube Composite Catalysts for Oxygen Reduction Reaction. ChemElectroChem, 2018, 5, 1827-1836.	1.7	42
4	High performance catalysts based on Fe/N co-doped carbide-derived carbon and carbon nanotube composites for oxygen reduction reaction in acid media. International Journal of Hydrogen Energy, 2019, 44, 12636-12648.	3.8	38
5	Adhesion and Mechanical Properties of PDMS-Based Materials Probed with AFM: A Review. Reviews on Advanced Materials Science, 2018, 56, 62-78.	1.4	36
6	Au nanowire junction breakup through surface atom diffusion. Nanotechnology, 2018, 29, 015704.	1.3	27
7	Application of polydimethylsiloxane in photocatalyst composite materials: A review. Reactive and Functional Polymers, 2021, 158, 104781.	2.0	27
8	Real-time manipulation of ZnO nanowires on a flat surface employed for tribological measurements: Experimental methods and modeling. Physica Status Solidi (B): Basic Research, 2013, 250, 305-317.	0.7	26
9	Shape Restoration Effect in Ag-SiO <sub>2</sub> Core-Shell Nanowires. Nano Letters, 2014, 14, 5201-5205.	4.5	26
10	Mechanical and structural characterizations of gamma- and alpha-alumina nanofibers. Materials Characterization, 2015, 107, 119-124.	1.9	25
11	Mechanical characterization of TiO <sub>2</sub> nanofibers produced by different electrospinning techniques. Materials Characterization, 2015, 100, 98-103.	1.9	25
12	Crystal mismatched layers in pentagonal nanorods and nanoparticles. Physica Status Solidi (B): Basic Research, 2010, 247, 288-298.	0.7	24
13	Manipulation of nanoparticles of different shapes inside a scanning electron microscope. Beilstein Journal of Nanotechnology, 2014, 5, 133-140.	1.5	24
14	The effect of substrate roughness on the static friction of CuO nanowires. Surface Science, 2012, 606, 1393-1399.	0.8	23
15	Real-time measurements of sliding friction and elastic properties of ZnO nanowires inside a scanning electron microscope. Solid State Communications, 2011, 151, 1244-1247.	0.9	22
16	Modeling of kinetic and static friction between an elastically bent nanowire and a flat surface. Journal of Materials Research, 2012, 27, 580-585.	1.2	22
17	Unexpected Epitaxial Growth of a Few WS <sub>2</sub> Layers on {111...00} Facets of ZnO Nanowires. Journal of Physical Chemistry C, 2016, 120, 21451-21459.	1.5	22
18	The Adhesion-enhanced Contact Electrification and Efficiency of Triboelectric Nanogenerators. Macromolecular Materials and Engineering, 2020, 305, 1900638.	1.7	21

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19	Synthesis and characterization of ZnO/ZnS/MoS <sub>2</sub> core-shell nanowires. Journal of Crystal Growth, 2017, 459, 100-104.	0.7	20
20	In situ measurements of ultimate bending strength of CuO and ZnO nanowires. European Physical Journal B, 2012, 85, 1.	0.6	19
21	Complex tribomechanical characterization of ZnO nanowires: nanomanipulations supported by FEM simulations. Nanotechnology, 2016, 27, 335701.	1.3	19
22	Fused Hybrid Linkers for Metal-Organic Framework-Derived Bifunctional Oxygen Electrocatalysts. ACS Applied Energy Materials, 2020, 3, 152-157.	2.5	19
23	Real-time manipulation of gold nanoparticles inside a scanning electron microscope. Solid State Communications, 2011, 151, 688-692.	0.9	17
24	A comparative study of heterostructured CuO/CuWO <sub>4</sub> nanowires and thin films. Journal of Crystal Growth, 2017, 480, 78-84.	0.7	17
25	Analysis of static friction and elastic forces in a nanowire bent on a flat surface: A comparative study. Tribology International, 2014, 72, 31-34.	3.0	15
26	Enhanced flexibility and electron-beam-controlled shape recovery in alumina-coated Au and Ag core-shell nanowires. Nanotechnology, 2017, 28, 505707.	1.3	15
27	Tuning adhesion forces between functionalized gold colloidal nanoparticles and silicon AFM tips: role of ligands and capillary forces. Beilstein Journal of Nanotechnology, 2018, 9, 660-670.	1.5	14
28	Sol-gel auto-combustion synthesis of Ca <sub>2</sub> Fe <sub>2</sub> O <sub>5</sub> brownmillerite nanopowders and thin films for advanced oxidation photoelectrochemical water treatment in visible light. Journal of Environmental Chemical Engineering, 2019, 7, 103224.	3.3	14
29	CO <sub>2</sub> reduction to formate on an affordable bismuth metal-organic framework based catalyst. Journal of CO <sub>2</sub> Utilization, 2022, 59, 101937.	3.3	12
30	Simultaneous measurement of static and kinetic friction of ZnO nanowires in situ with a scanning electron microscope. Micron, 2012, 43, 1140-1146.	1.1	11
31	Some aspects of formation and tribological properties of silver nanodumbbells. Nanoscale Research Letters, 2014, 9, 186.	3.1	11
32	Electron beam induced growth of silver nanowhiskers. Journal of Crystal Growth, 2015, 410, 63-68.	0.7	11
33	Silver Nanowire-Based Catalysts for Oxygen Reduction Reaction in Alkaline Solution. ChemCatChem, 2021, 13, 4364-4371.	1.8	10
34	Pentagonal Nanorods and Nanoparticles with Mismatched Shell Layers. Journal of Nanoscience and Nanotechnology, 2010, 10, 6136-6143.	0.9	9
35	Mechanical properties of sol-gel derived SiO <sub>2</sub> nanotubes. Beilstein Journal of Nanotechnology, 2014, 5, 1808-1814.	1.5	9
36	Phase and structural transformations in annealed copper coatings in relation to oxide whisker growth. Applied Surface Science, 2015, 346, 423-427.	3.1	9

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37	Effect of cobalt doping on the mechanical properties of ZnO nanowires. <i>Materials Characterization</i> , 2016, 121, 40-47.	1.9	8
38	Transparent ZnO-coated polydimethylsiloxane-based material for photocatalytic purification applications. <i>Journal of Coatings Technology Research</i> , 2020, 17, 573-579.	1.2	8
39	Thermal, Mechanical, and Acoustic Properties of Polydimethylsiloxane Filled with Hollow Glass Microspheres. <i>Materials</i> , 2022, 15, 1652.	1.3	8
40	Low-density PDMS foams by controlled destabilization of thixotropic emulsions. <i>Journal of Colloid and Interface Science</i> , 2022, 626, 265-275.	5.0	8
41	Mechanical characterisation of pentagonal gold nanowires in three different test configurations: A comparative study. <i>Micron</i> , 2019, 124, 102686.	1.1	7
42	Hydrophilic polydimethylsiloxane-based sponges for dewatering applications. <i>Materials Letters</i> , 2020, 263, 127278.	1.3	7
43	Iron-Containing Nitrogen-Doped Carbon Nanomaterials Prepared via NaCl Template as Efficient Electrocatalysts for the Oxygen Reduction Reaction. <i>ChemElectroChem</i> , 2021, 8, 2288-2297.	1.7	7
44	Mechanical properties of individual fiber segments of electrospun lignocellulose-reinforced poly(vinyl alcohol). <i>Journal of Applied Polymer Science</i> , 2017, 134, .	1.3	6
45	Kinking in Semiconductor Nanowires: A Review. <i>Crystal Growth and Design</i> , 2022, 22, 871-892.	1.4	6
46	Antimicrobial Activity of Commercial Photocatalytic SaniTise, Window Glass. <i>Catalysts</i> , 2022, 12, 197.	1.6	5
47	Integrated carbon nanotube fibre quartz tuning fork biosensor. <i>Proceedings of the Estonian Academy of Sciences</i> , 2012, 61, 48.	0.9	4
48	Metal nanodumbbells for nanomanipulations and tribological experiments. <i>Physica Scripta</i> , 2015, 90, 094007.	1.2	4
49	Structural factor in bending testing of fivefold twinned nanowires revealed by finite element analysis. <i>Physica Scripta</i> , 2016, 91, 115701.	1.2	4
50	Phosphonium-based ionic liquids mixed with stabilized oxide nanoparticles as highly promising lubricating oil additives. <i>Proceedings of the Estonian Academy of Sciences</i> , 2017, 66, 174.	0.9	4
51	The effect of heat treatment on the morphology and mobility of Au nanoparticles. <i>Beilstein Journal of Nanotechnology</i> , 2020, 11, 61-67.	1.5	4
52	The role of Al <sub>2</sub> O <sub>3</sub> interlayer in the synthesis of ZnS/Al <sub>2</sub> O <sub>3</sub> /MoS <sub>2</sub> core-shell nanowires. <i>Journal of Alloys and Compounds</i> , 2022, 918, 165648.	2.8	4
53	Formation and characterization of microcantilevers produced from ionic liquid by electron beam irradiation. <i>Journal of Molecular Liquids</i> , 2017, 229, 45-50.	2.3	3
54	Abrupt elastic-to-plastic transition in pentagonal nanowires under bending. <i>Beilstein Journal of Nanotechnology</i> , 2019, 10, 2468-2476.	1.5	3

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55	Understanding the Conversion Process of Magnetron-Deposited Thin Films of Amorphous $\text{ReO}_x$ to Crystalline $\text{ReO}_3$ upon Thermal Annealing. <i>Crystal Growth and Design</i> , 2020, 20, 6147-6156.	1.4	3
56	Unraveling the Structure and Properties of Layered and Mixed $\text{ReO}_3$ - $\text{WO}_3$ Thin Films Deposited by Reactive DC Magnetron Sputtering. <i>ACS Omega</i> , 2022, 7, 1827-1837.	1.6	3
57	Plasmonic photoluminescence enhancement by silver nanowires. <i>Physica Scripta</i> , 2015, 90, 094008.	1.2	2
58	Phase transformations in icosahedral small copper particles during their annealing in different gas media. <i>Bulletin of the Russian Academy of Sciences: Physics</i> , 2015, 79, 1098-1100.	0.1	1
59	Elastic Properties of Oxide Nanowhiskers Prepared from Electrolytically Deposited Copper. <i>Russian Physics Journal</i> , 2015, 58, 843-847.	0.2	1
60	Low-friction nanojoint prototype. <i>Nanotechnology</i> , 2018, 29, 195707.	1.3	1
61	Application of Tuning Fork Sensors for In-situ Studies of Dynamic Force Interactions Inside Scanning and Transmission Electron Microscopes. <i>Medziagotyra</i> , 2012, 18, .	0.1	1
62	Preparation of functional $\text{Ga}_2\text{S}_3$ and $\text{Ga}_2\text{Se}_3$ shells around $\text{Ga}_2\text{O}_3$ nanowires via sulfurization or selenization. <i>Optical Materials</i> , 2022, 131, 112675.	1.7	1
63	Sol-Gel Derived $\text{SnO}_2$ Nanometric Fibers. <i>Materials Research Society Symposia Proceedings</i> , 2007, 1017, 111.	0.1	0
64	Stronger Reductive Environment in Solvothermal Synthesis Leads to Improved Ga Doping Efficiency in $\text{ZnO}$ Nanocrystals and Enhanced Plasmonic Absorption. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2019, 216, 1900335.	0.8	0