

# Sergei N Smirnov

## List of Publications by Year in descending order

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75  
papers

6,259  
citations

126907

33  
h-index

74163

75  
g-index

76  
all docs

76  
docs citations

76  
times ranked

9711  
citing authors

#	ARTICLE	IF	CITATIONS
1	Water desalination using nanoporous single-layer graphene. <i>Nature Nanotechnology</i> , 2015, 10, 459-464.	31.5	1,372
2	Role of Hydrogen in Chemical Vapor Deposition Growth of Large Single-Crystal Graphene. <i>ACS Nano</i> , 2011, 5, 6069-6076.	14.6	792
3	Ionic Selectivity of Single Nanochannels. <i>Nano Letters</i> , 2008, 8, 1978-1985.	9.1	387
4	Large scale atmospheric pressure chemical vapor deposition of graphene. <i>Carbon</i> , 2013, 54, 58-67.	10.3	241
5	Control of Nanopore Wetting by a Photochromic Spiropyran: A Light-Controlled Valve and Electrical Switch. <i>Nano Letters</i> , 2006, 6, 1013-1017.	9.1	233
6	Nanofluidic Ionic Diodes. Comparison of Analytical and Numerical Solutions. <i>ACS Nano</i> , 2008, 2, 1589-1602.	14.6	221
7	Evolutionary selection growth of two-dimensional materials on polycrystalline substrates. <i>Nature Materials</i> , 2018, 17, 318-322.	27.5	204
8	Synthesis of Hexagonal Boron Nitride Monolayer: Control of Nucleation and Crystal Morphology. <i>Chemistry of Materials</i> , 2015, 27, 8041-8047.	6.7	202
9	Reduced Graphene Oxide Wrapped FeS Nanocomposite for Lithium-Ion Battery Anode with Improved Performance. <i>ACS Applied Materials &amp; Interfaces</i> , 2013, 5, 5330-5335.	8.0	199
10	Graphene Nucleation Density on Copper: Fundamental Role of Background Pressure. <i>Journal of Physical Chemistry C</i> , 2013, 117, 18919-18926.	3.1	179
11	Effect of Water on Silanization of Silica by Trimethoxysilanes. <i>Langmuir</i> , 2002, 18, 3181-3184.	3.5	159
12	Electrical and thermal conductivity of low temperature CVD graphene: the effect of disorder. <i>Nanotechnology</i> , 2011, 22, 275716.	2.6	132
13	Bismuth oxide: a new lithium-ion battery anode. <i>Journal of Materials Chemistry A</i> , 2013, 1, 12123.	10.3	132
14	Sensing DNA Hybridization via Ionic Conductance through a Nanoporous Electrode. <i>Langmuir</i> , 2005, 21, 4776-4778.	3.5	128
15	Direct Detection and Separation of DNA Using Nanoporous Alumina Filters. <i>Langmuir</i> , 2004, 20, 9913-9915.	3.5	119
16	SBA-15 confined synthesis of TiNb <sub>2</sub> O <sub>7</sub> nanoparticles for lithium-ion batteries. <i>Nanoscale</i> , 2013, 5, 11102.	5.6	119
17	Voltage-Gated Hydrophobic Nanopores. <i>ACS Nano</i> , 2011, 5, 7453-7461.	14.6	105
18	Label-Free DNA Sensor Based on Surface Charge Modulated Ionic Conductance. <i>ACS Nano</i> , 2009, 3, 1004-1010.	14.6	101

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19	Water Confinement in Hydrophobic Nanopores. Pressure-Induced Wetting and Drying. ACS Nano, 2010, 4, 5069-5075.	14.6	63
20	Strong and Electrically Conductive Graphene-Based Composite Fibers and Laminates. ACS Applied Materials & Interfaces, 2015, 7, 10702-10709.	8.0	63
21	Instant gelation synthesis of 3D porous MoS <sub>2</sub> @C nanocomposites for lithium ion batteries. Nanoscale, 2014, 6, 3664-3669.	5.6	58
22	Advances in the transient dc photocurrent technique for excited state dipole moment measurements. Review of Scientific Instruments, 1998, 69, 2875-2887.	1.3	55
23	Anisotropic Etching of Hexagonal Boron Nitride and Graphene: Question of Edge Terminations. Nano Letters, 2017, 17, 7306-7314.	9.1	54
24	Stability of silane modifiers on alumina nanoporous membranes. Journal of Membrane Science, 2006, 281, 587-591.	8.2	51
25	Hydrothermally shrunk alumina nanopores and their application to DNA sensing. Analyst, The, 2006, 131, 1248.	3.5	49
26	Porous TiO <sub>2</sub> Conformal Coating on Carbon Nanotubes as Energy Storage Materials. Electrochimica Acta, 2015, 169, 73-81.	5.2	49
27	Characterization of the Giant Transient Dipole Generated by Photoinduced Electron Transfer in a Carotene- <i>Porphyrin</i> -Fullerene Molecular Triad. Journal of Physical Chemistry A, 2003, 107, 7567-7573.	2.5	48
28	Application of anodized aluminum in fluorescence detection of biological species. Analytical and Bioanalytical Chemistry, 2006, 385, 954-958.	3.7	46
29	pH Valve Based on Hydrophobicity Switching. Chemistry of Materials, 2011, 23, 3601-3605.	6.7	44
30	Surface modification of graphene nanopores for protein translocation. Nanotechnology, 2013, 24, 495102.	2.6	44
31	Optically detected electron spin resonance studies of electrons and holes involved in geminate recombination in non-polar solutions. Faraday Discussions of the Chemical Society, 1984, 78, 289.	2.2	35
32	Titanium Oxynitride Nanoparticles Anchored on Carbon Nanotubes as Energy Storage Materials. ACS Applied Materials & Interfaces, 2015, 7, 24212-24217.	8.0	35
33	A facile hydrothermal route to iron(III) oxide with conductive additives as composite anode for lithium ion batteries. Journal of Power Sources, 2014, 259, 227-232.	7.8	33
34	Surface Assisted Intermolecular Interactions in Self-Assembled Coumarin Submonolayers. Langmuir, 2001, 17, 7593-7599.	3.5	32
35	Ionic Conductance through Graphene: Assessing Its Applicability as a Proton Selective Membrane. ACS Nano, 2019, 13, 12109-12119.	14.6	28
36	Singlet Biradical $\hat{\alpha}$ ' Singlet Zwitterion Optical Transition in a Twisted Olefin. Journal of the American Chemical Society, 1996, 118, 8981-8982.	13.7	23

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37	Evaluation of the Catalytic Activity and Cytotoxicity of Palladium Nanocubes: The Role of Oxygen. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 9364-9371.	8.0	23
38	Enhancing the Cooperative Catalytic Effect in Ni/Co Hydr(oxy)oxide Porous Electrodes for Overall Water Splitting and Glucose Sensing. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 11303-11312.	6.7	23
39	Biochemically Responsive Smart Surface. <i>ACS Applied Materials &amp; Interfaces</i> , 2009, 1, 768-774.	8.0	21
40	Simple and Versatile Detection of Viruses Using Anodized Alumina Membranes. <i>ACS Sensors</i> , 2016, 1, 488-492.	7.8	20
41	New perspectives in SWCNT applications: Tuball SWCNTs. Part 1. Tuball by itselfâ€”All you need to know about it. <i>Carbon Trends</i> , 2022, 8, 100175.	3.0	20
42	Exclusively Proton Conductive Membranes Based on Reduced Graphene Oxide Polymer Composites. <i>ACS Nano</i> , 2019, 13, 13136-13143.	14.6	19
43	Unusual Role of Oxygen in Electron-Transfer Processes. <i>Journal of the American Chemical Society</i> , 2002, 124, 4212-4213.	13.7	18
44	Transient Displacement Currents Generated by Excited-State Dipole Moments in Liquids. <i>The Journal of Physical Chemistry</i> , 1994, 98, 1953-1961.	2.9	17
45	Electrical Conductance of Hydrophobic Membranes or What Happens below the Surface. <i>Langmuir</i> , 2007, 23, 7784-7792.	3.5	17
46	Synergistic effect of iron diselenide decorated multi-walled carbon nanotubes for enhanced heterogeneous electron transfer and electrochemical hydrogen evolution. <i>Electrochimica Acta</i> , 2018, 270, 138-146.	5.2	17
47	Giant Dipole Moment in a Triad System. Mechanisms of Anisotropic Photoresponse in the Transient dc Conductivity of Dipolar Solutes. <i>The Journal of Physical Chemistry</i> , 1996, 100, 12329-12336.	2.9	16
48	Radical Induced Impeding of Charge Recombination. <i>Journal of Physical Chemistry B</i> , 2002, 106, 8657-8666.	2.6	16
49	Light polarization effects in the transient dc conductivity response to excitation of dipolar solutes. <i>Chemical Physics Letters</i> , 1994, 217, 167-172.	2.6	15
50	Exciplex Dipole Moments:â€” Cyanoanthracene Acceptors and Methyl-Substituted Benzene Donors. <i>Journal of Physical Chemistry A</i> , 1998, 102, 6558-6564.	2.5	15
51	Charge Separation in Triplet C60/TMPD Exciplexes. <i>The Journal of Physical Chemistry</i> , 1994, 98, 5661-5664.	2.9	14
52	Mechanism of TMPD photolysis in alcohols. Spin-dependent ion recombination and photoconductivity. <i>Physical Chemistry Chemical Physics</i> , 2001, 3, 204-212.	2.8	13
53	Long-lived photoinduced charge transfer state of synthetically affable porphyrin-fullerene dyads. <i>Journal of Porphyrins and Phthalocyanines</i> , 2003, 07, 651-666.	0.8	13
54	Direct growth of mesoporous anatase TiO <sub>2</sub> on nickel foam by soft template method as binder-free anode for lithium-ion batteries. <i>RSC Advances</i> , 2014, 4, 48938-48942.	3.6	13

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55	OD ESR signals of excess electrons in liquid hydrocarbons depending on the geminate recombination parameters, theory and experiment. <i>Chemical Physics</i> , 1985, 92, 381-387.	1.9	12
56	Electron Transfer in Platinum(II) Diimine-Centered Triads: Mechanistic Insights from Photoinduced Transient Displacement Current Measurements. <i>Journal of Physical Chemistry A</i> , 2009, 113, 6430-6436.	2.5	11
57	OD ESR studies on the interaction of electrons with polar additions in liquid saturated hydrocarbons. <i>Chemical Physics</i> , 1986, 109, 321-329.	1.9	9
58	Exciplex dipole moments: excited cyanoanthracenes in neat methylbenzene solvents. <i>Chemical Physics Letters</i> , 1996, 257, 89-92.	2.6	9
59	New Perspectives in SWCNT Applications: Tuball SWCNTs. Part 2. New Composite Materials through Augmentation with Tuball.. <i>Carbon Trends</i> , 2022, 8, 100176.	3.0	8
60	Larger than Expected Free Ion Yields from the Photoexcited trans-Stilbene/Fumaronitrile CT Complex in a Variety of Solvents. <i>Journal of Physical Chemistry A</i> , 1998, 102, 6385-6389.	2.5	7
61	Application of the OD ESR method for studying the molecular structure of excess electron trap in $^{13}\text{C}$ -irradiated hydrocarbons. <i>Chemical Physics</i> , 1988, 124, 81-89.	1.9	5
62	Electric Polarization of Dilute Polar Solutions: A Revised Treatment for Arbitrary Shaped Molecules. <i>Journal of Physical Chemistry A</i> , 2003, 107, 7561-7566.	2.5	5
63	Single Molecule Conductance of Bipyridyl Ethynes: The Role of Surface Binding Modes. <i>Journal of Physical Chemistry B</i> , 2010, 114, 14189-14193.	2.6	5
64	Determination of the frequency of excess electron trap to trap migration in saturated hydrocarbons by an OD ESR technique. <i>Chemical Physics</i> , 1990, 144, 241-248.	1.9	4
65	Smart Nanoporous Membranes. <i>ECS Transactions</i> , 2007, 3, 23-29.	0.5	4
66	Surface-Assisted Transient Displacement Charge Technique. I. Photoinduced Charge Transfer in Self-Assembled Monolayers. <i>Journal of Physical Chemistry B</i> , 2006, 110, 17931-17940.	2.6	4
67	Mixed Silane Monolayers Reveal the Disparity of Biotin and Folate in Targeting Cancer Cells. <i>ACS Applied Nano Materials</i> , 2020, 3, 5372-5380.	5.0	4
68	Symmetry Effects in Photoinduced Electron Transfer in Chlorin-Quinone Dyads: Adiabatic Suppression in the Marcus Inverted Region. <i>Chemistry - A European Journal</i> , 2020, 26, 17120-17127.	3.3	4
69	Induced flux creep as a novel technique for detecting alternating magnetic fields. <i>Physica C: Superconductivity and Its Applications</i> , 1991, 182, 261-268.	1.2	2
70	Unique role of dimeric carbon precursors in graphene growth by chemical vapor deposition. <i>Carbon Trends</i> , 2021, 5, 100093.	3.0	2
71	Induced flux creep and detection of alternating magnetic fields in HTSC films. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1991, 160, 298-300.	2.1	1
72	Photoinduced Charge Separation. Dipoles, Exciplexes and Ion Pairs. <i>Molecular Crystals and Liquid Crystals</i> , 1996, 283, 243-248.	0.3	1

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73	Surface-Assisted Transient Displacement Charge Technique. II. Effect of Gases on Photoinduced Charge Transfer in Self-Assembled Monolayers. Journal of Physical Chemistry B, 2006, 110, 17941-17948.	2.6	1
74	Nanoporous Sensors. ECS Transactions, 2010, 33, 17-20.	0.5	1
75	Biosensing with Nanopores. , 0, , 457-490.		0