Alexander Sinitskii

List of Publications by Year
in descending order

149 papers	21,952 citations	71102 41 h-index	9861 141 g-index
154 all docs	154 docs citations	154 times ranked	27677 citing authors

#	Article	IF	Citations
1	Surface and dynamical properties of GeI₂. 2D Materials, 2022, 9, 025001.	4.4	7
2	Mechanical Stress Modulation of Resistance in MoS₂ Junctions. Nano Letters, 2022, 22, 1047-1052.	9.1	14
3	Probing the Dynamics of Electric Double Layer Formation over Wide Time Scales (10â€“9â€“10+5 s) in the Ionic Liquid DEME-TFSI. Journal of Physical Chemistry C, 2022, 126, 1958-1965.	3.1	3
4	Diffusion-controlled on-surface synthesis of graphene nanoribbon heterojunctions. RSC Advances, 2022, 12, 6615-6618.	3.6	5
5	High-electric-field behavior of the metal-insulator transition in TiS₃ nanowire transistors. Applied Physics Letters, 2022, 120, 073102.	3.3	9
6	Direct observation of ferroelectricity in two-dimensional MoS2. Npj 2D Materials and Applications, 2022, 6, .	7.9	30
7	Effect of Au/HfS₃ interfacial interactions on properties of HfS₃-based devices. Physical Chemistry Chemical Physics, 2022, 24, 14016-14021.	2.8	7
8	Negative photoresponse in Ti₃C₂T_x MXene monolayers. Nanophotonics, 2022, 11, 3953-3960.	6.0	10
9	Electroresistance effect in MoS2-Hf0.5Zr0.5O2 heterojunctions. Applied Physics Letters, 2021, 118, .	3.3	13
10	Nonuniform Debye Temperatures in Quasi-One-Dimensional Transition-Metal Trichalcogenides. , 2021, 3, 414-419.		12
11	High electrical conductivity and breakdown current density of individual monolayer Ti3C2T MXene flakes. Matter, 2021, 4, 1413-1427.	10.0	100
12	Using Light for Better Programming of Ferroelectric Devices: Optoelectronic MoS₂â€Pb(Zr,Ti)O₃ Memories with Improved Onâ€“Off Ratios. Advanced Electronic Materials, 2021, 7, 2001223.	5.1	16
13	Collective states and charge density waves in the group IV transition metal trichalcogenides. Applied Physics Letters, 2021, 118, .	3.3	22
14	High Breakdown Current Density in Monolayer Nb₄C₃T_x MXene. , 2021, 3, 1088-1094.		19
15	Gate-tunable optical extinction of graphene nanoribbon nanoclusters. APL Materials, 2021, 9, 071101.	5.1	1
16	Structure Formation and Coupling Reactions of Hexaphenylbenzene and Its Brominated Analog. ChemPhysChem, 2021, 22, 1769-1773.	2.1	3
17	Complexities at the Au/ZrS₃(001) interface probed by x-ray photoemission spectroscopy. Journal of Physics Condensed Matter, 2021, 33, 434001.	1.8	6
18	Anisotropic Properties of Quasiâ€1D In₄Se₃: Mechanical Exfoliation, Electronic Transport, and Polarizationâ€Dependent Photoresponse. Advanced Functional Materials, 2021, 31, 2106459.	14.9	11

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19	Printed Electronic Devices with Inks of TiS₃ Quasi-One-Dimensional van der Waals Material. ACS Applied Materials & Interfaces, 2021, 13, 47033-47042.	8.0	12
20	Seeking Out Heterogeneous Hydrogen Bonding in a Self-Assembled 2D Cocrystal of Croconic Acid and Benzimidazole on Au(111). Journal of Physical Chemistry C, 2021, 125, 2403-2410.	3.1	8
21	Oxygen Availability in Zn_xCe_{1â€“x}O₂ Nanocrystallites as a Function of Zinc Concentration. Journal of Physical Chemistry C, 2021, 125, 23071-23084.	3.1	3
22	Synthesis and exfoliation of quasi-1D (Zr,Ti)S3 solid solutions for device measurements. Journal of Alloys and Compounds, 2020, 815, 152316.	5.5	21
23	Nanotoxicity of ZrS3 Probed in a Bioluminescence Test on E. coli Bacteria: The Effect of Evolving H2S. Nanomaterials, 2020, 10, 1401.	4.1	9
24	Effect of Band Symmetry on Photocurrent Production in Quasi-One-Dimensional Transition-Metal Trichalcogenides. ACS Applied Materials & Interfaces, 2020, 12, 40525-40531.	8.0	21
25	Chevron-type graphene nanoribbons with a reduced energy band gap: Solution synthesis, scanning tunneling microscopy and electrical characterization. Nano Research, 2020, 13, 1713-1722.	10.4	12
26	Low-Voltage Domain-Wall LiNbO₃ Memristors. Nano Letters, 2020, 20, 5873-5878.	9.1	45
27	Partially Oxidized Ti₃C₂T_x MXenes for Fast and Selective Detection of Organic Vapors at Part-per-Million Concentrations. ACS Applied Nano Materials, 2020, 3, 3195-3204.	5.0	66
28	Electrical and Elastic Properties of Individual Singleâ€Layer Nb₄C₃T_x MXene Flakes. Advanced Electronic Materials, 2020, 6, 1901382.	5.1	134
29	Highly Selective Gas Sensors Based on Graphene Nanoribbons Grown by Chemical Vapor Deposition. ACS Applied Materials & Interfaces, 2020, 12, 7392-7402.	8.0	59
30	Surface termination and Schottky-barrier formation of In₄Se₃(001). Semiconductor Science and Technology, 2020, 35, 065009.	2.0	17
31	The electronic band structure of quasi-one-dimensional van der Waals semiconductors: the effective hole mass of ZrS₃ compared to TiS₃. Journal of Physics Condensed Matter, 2020, 32, 29LT01.	1.8	12
32	Atomic-Scale Characterization of Ferro-Electric Domains in Lithium Niobate-revealing the Electronic Properties of Domain Walls. Microscopy and Microanalysis, 2019, 25, 576-577.	0.4	4
33	Medium-Dependent Antibacterial Properties and Bacterial Filtration Ability of Reduced Graphene Oxide. Nanomaterials, 2019, 9, 1454.	4.1	14
34	Electronic and Mechanical Properties of MXenes Derived from Single-Flake Measurements. , 2019, , 301-325.		9
35	Building the Quasi One Dimensional Transistor from 2D Materials. , 2019, , .		3
36	Reply to â€œComment on â€˜Gate-Controlled Metalâ€“Insulator Transition in TiS₃ Nanowire Field-Effect Transistorsâ€™â€• ACS Nano, 2019, 13, 8498-8500.	14.6	3

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37	Inkjet Printing All Inorganic Halide Perovskite Inks for Photovoltaic Applications. Journal of Visualized Experiments, 2019, , .	0.3	3
38	Onâ€Surface Synthesis and Spectroscopic Characterization of Laterally Extended Chevron Graphene Nanoribbons. ChemPhysChem, 2019, 20, 2281-2285.	2.1	22
39	The electronic properties of Au and Pt metal contacts on quasi-one-dimensional layered TiS3(001). Applied Physics Letters, 2019, 114, 101604.	3.3	30
40	Effects of Synthesis and Processing on Optoelectronic Properties of Titanium Carbonitride MXene. Chemistry of Materials, 2019, 31, 2941-2951.	6.7	160
41	Nanodomain Engineering for Programmable Ferroelectric Devices. Nano Letters, 2019, 19, 3194-3198.	9.1	50
42	Slot-Die-Printed Two-Dimensional ZrS₃ Charge Transport Layer for Perovskite Light-Emitting Diodes. ACS Applied Materials & Interfaces, 2019, 11, 48021-48028.	8.0	13
43	Gate-Controlled Metalâ€“Insulator Transition in TiS₃ Nanowire Field-Effect Transistors. ACS Nano, 2019, 13, 803-811.	14.6	54
44	(Invited) Atomically Precise Graphene Nanoribbons: From Synthesis to Applications. ECS Meeting Abstracts, 2019, , .	0.0	0
45	A recipe for nanoporous graphene. Science, 2018, 360, 154-155.	12.6	14
46	The band structure of the quasi-one-dimensional layered semiconductor TiS3(001). Applied Physics Letters, 2018, 112, .	3.3	38
47	Low-temperature thermal reduction of graphene oxide: In situ correlative structural, thermal desorption, and electrical transport measurements. Applied Physics Letters, 2018, 112, .	3.3	42
48	Inkjet printable-photoactive all inorganic perovskite films with long effective photocarrier lifetimes. Journal of Physics Condensed Matter, 2018, 30, 18LT02.	1.8	13
49	Chevron-based graphene nanoribbon heterojunctions: Localized effects of lateral extension and structural defects on electronic properties. Carbon, 2018, 134, 310-315.	10.3	31
50	Quasi-1D TiS₃ Nanoribbons: Mechanical Exfoliation and Thickness-Dependent Raman Spectroscopy. ACS Nano, 2018, 12, 12713-12720.	14.6	77
51	Chemical vapor deposition and characterization of two-dimensional molybdenum dioxide (MoO₂) nanoplatelets. Nanotechnology, 2018, 29, 505707.	2.6	18
52	Photoswitchable Monolayer and Bilayer Graphene Devices Enabled by In Situ Covalent Functionalization. Advanced Electronic Materials, 2018, 4, 1800021.	5.1	17
53	Phenyl Functionalization of Atomically Precise Graphene Nanoribbons for Engineering Inter-ribbon Interactions and Graphene Nanopores. ACS Nano, 2018, 12, 8662-8669.	14.6	49
54	Optical control of polarization in ferroelectric heterostructures. Nature Communications, 2018, 9, 3344.	12.8	119

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55	Elastic properties of 2D Ti ₃ C ₂ T _x MXene monolayers and bilayers. Science Advances, 2018, 4, eaat0491.	10.3	637
56	Polarization-Mediated Modulation of Electronic and Transport Properties of Hybrid MoS₂â€“BaTiO₃â€“SrRuO₃ Tunnel Junctions. Nano Letters, 2017, 17, 922-927.	9.1	75
57	Encapsulated Object Analysis: Imaging and Analysis of Encapsulated Objects through Selfâ€Assembled Electron and Optically Transparent Graphene Oxide Membranes (Adv. Mater. Interfaces 2/2017). Advanced Materials Interfaces, 2017, 4, .	3.7	0
58	Polarizationâ€Dependent Electronic Transport in Graphene/Pb(Zr,Ti)O₃ Ferroelectric Fieldâ€Effect Transistors. Advanced Electronic Materials, 2017, 3, 1700020.	5.1	60
59	Imaging and Analysis of Encapsulated Objects through Selfâ€Assembled Electron and Optically Transparent Graphene Oxide Membranes. Advanced Materials Interfaces, 2017, 4, 1600734.	3.7	8
60	Epitaxial growth of aligned atomically precise chevron graphene nanoribbons on Cu(111). Chemical Communications, 2017, 53, 8463-8466.	4.1	36
61	Solution-Synthesized Chevron Graphene Nanoribbons Exfoliated onto H:Si(100). Nano Letters, 2017, 17, 170-178.	9.1	49
62	Interfacial Self-Assembly of Atomically Precise Graphene Nanoribbons into Uniform Thin Films for Electronics Applications. ACS Applied Materials & Interfaces, 2017, 9, 693-700.	8.0	22
63	Laterally extended atomically precise graphene nanoribbons with improved electrical conductivity for efficient gas sensing. Nature Communications, 2017, 8, 820.	12.8	113
64	Synthesis of Cesium Lead Halide Perovskite Quantum Dots. Journal of Chemical Education, 2017, 94, 1150-1156.	2.3	51
65	Aggregation of atomically precise graphene nanoribbons. RSC Advances, 2017, 7, 54491-54499.	3.6	7
66	Dense monolayer films of atomically precise graphene nanoribbons on metallic substrates enabled by direct contact transfer of molecular precursors. Nanoscale, 2017, 9, 18835-18844.	5.6	21
67	7. Solution Synthesis of Atomically Precise Graphene Nanoribbons. , 2017, , .		3
68	Solution Synthesis of Atomically Precise Graphene Nanoribbons. ChemistrySelect, 2017, 2, .	1.5	3
69	MXene Materials: Effect of Synthesis on Quality, Electronic Properties and Environmental Stability of Individual Monolayer Ti₃C₂ MXene Flakes (Adv. Electron. Mater. 12/2016). Advanced Electronic Materials, 2016, 2, .	5.1	18
70	Anisotropy, band-to-band transitions, phonon modes, and oxidation properties of cobalt-oxide core-shell slanted columnar thin films. Applied Physics Letters, 2016, 108, .	3.3	12
71	Nanodomain Engineering in Ferroelectric Capacitors with Graphene Electrodes. Nano Letters, 2016, 16, 6460-6466.	9.1	41
72	Solution-stable anisotropic carbon nanotube/graphene hybrids based on slanted columnar thin films for chemical sensing. RSC Advances, 2016, 6, 63235-63240.	3.6	3

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73	Chemical vapour deposition and characterization of uniform bilayer and trilayer MoS₂crystals. Journal of Materials Chemistry C, 2016, 4, 11081-11087.	5.5	42
74	Effect of Synthesis on Quality, Electronic Properties and Environmental Stability of Individual Monolayer Ti₃C₂ MXene Flakes. Advanced Electronic Materials, 2016, 2, 1600255.	5.1	1,160
75	Structure and Proton-Transfer Mechanism in One-Dimensional Chains of Benzimidazoles. Journal of Physical Chemistry C, 2016, 120, 5804-5809.	3.1	8
76	Time-Resolved Measurements of Photocarrier Dynamics in TiS₃ Nanoribbons. ACS Applied Materials & Interfaces, 2016, 8, 18334-18338.	8.0	35
77	Graphene platform for neural regenerative medicine. Neural Regeneration Research, 2016, 11, 894-5.	3.0	19
78	Statics and Dynamics of Ferroelectric Domains in Diisopropylammonium Bromide. Advanced Materials, 2015, 27, 7832-7838.	21.0	60
79	Electropolymerization of Poly(phenylene oxide) on Graphene as a Top-Gate Dielectric. Chemistry of Materials, 2015, 27, 157-165.	6.7	14
80	Multilayer Graphitic Coatings for Thermal Stabilization of Metallic Nanostructures. ACS Applied Materials & Interfaces, 2015, 7, 2987-2992.	8.0	12
81	Optoelectrical Molybdenum Disulfide (MoS₂)â€"Ferroelectric Memories. ACS Nano, 2015, 9, 8089-8098.	14.6	193
82	Graphene substrate for inducing neurite outgrowth. Biochemical and Biophysical Research Communications, 2015, 460, 267-273.	2.1	57
83	Structural and optical properties of cobalt slanted nanopillars conformally coated with few-layer graphene. Applied Physics Letters, 2015, 106, 231901.	3.3	8
84	Nitrogen-Doping Induced Self-Assembly of Graphene Nanoribbon-Based Two-Dimensional and Three-Dimensional Metamaterials. Nano Letters, 2015, 15, 5770-5777.	9.1	80
85	Oxidative peeling of carbon black nanoparticles. RSC Advances, 2015, 5, 92539-92544.	3.6	4
86	Few-layered titanium trisulfide (TiS₃) field-effect transistors. Nanoscale, 2015, 7, 12291-12296.	5.6	122
87	Study of feasibility to apply the graphene as a sensitive material for chemiresistor-type gas sensors. , 2014, , .		0
88	Synthesis in gas and liquid phase: general discussion. Faraday Discussions, 2014, 173, 115-135.	3.2	2
89	Ferroelectric tunnel junctions with graphene electrodes. Nature Communications, 2014, 5, 5518.	12.8	107
90	Large-scale solution synthesis of narrow graphene nanoribbons. Nature Communications, 2014, 5, 3189.	12.8	271

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91	Three-dimensional periodic graphene nanostructures. Journal of Materials Chemistry C, 2014, 2, 1879.	5.5	34
92	Intrinsic device-to-device variation in graphene field-effect transistors on a Si/SiO2 substrate as a platform for discriminative gas sensing. Applied Physics Letters, 2014, 104, .	3.3	30
93	Bulk properties of solution-synthesized chevron-like graphene nanoribbons. Faraday Discussions, 2014, 173, 105-13.	3.2	21
94	High-Yield Synthesis of Boron Nitride Nanoribbons via Longitudinal Splitting of Boron Nitride Nanotubes by Potassium Vapor. ACS Nano, 2014, 8, 9867-9873.	14.6	27
95	Bottom-up solution synthesis of narrow nitrogen-doped graphene nanoribbons. Chemical Communications, 2014, 50, 4172-4174.	4.1	136
96	Immobilization and Encapsulation of Micro- and Nano- Objects with Electron Transparent Graphene Oxide membranes. Microscopy and Microanalysis, 2014, 20, 1798-1799.	0.4	3
97	Effect of anchor and functional groups in functionalized graphene devices. Nano Research, 2013, 6, 138-148.	10.4	22
98	Synthesis of high-quality inverse opals based on magnetic complex oxides: yttrium iron garnet (Y3Fe5O12) and bismuth ferrite (BiFeO3). Journal of Materials Chemistry C, 2013, 1, 2975.	5.5	10
99	Highly selective gas sensor arrays based on thermally reduced graphene oxide. Nanoscale, 2013, 5, 5426.	5.6	270
100	Patterning graphene nanoribbons using copper oxide nanowires. Applied Physics Letters, 2012, 100, 103106.	3.3	24
101	Spin Dynamics and Relaxation in Graphene Nanoribbons: Electron Spin Resonance Probing. ACS Nano, 2012, 6, 7615-7623.	14.6	35
102	Chemical Approaches to Produce Graphene Oxide and Related Materials. , 2012, , 205-234.		5
103	Longitudinal Splitting of Boron Nitride Nanotubes for the Facile Synthesis of High Quality Boron Nitride Nanoribbons. Nano Letters, 2011, 11, 3221-3226.	9.1	122
104	Graphene Signal Mixer for Sensing Applications. Journal of Physical Chemistry C, 2011, 115, 12128-12134.	3.1	12
105	Photonic crystals based on opals and inverse opals: synthesis and structural features. Russian Chemical Reviews, 2011, 80, 1191-1207.	6.5	25
106	Highly Conductive Graphene Nanoribbons by Longitudinal Splitting of Carbon Nanotubes Using Potassium Vapor. ACS Nano, 2011, 5, 968-974.	14.6	204
107	Synthesis and properties of nanocrystalline CsI. Inorganic Materials, 2011, 47, 1033-1038.	0.8	3
108	Layer-by-Layer Removal of Graphene for Device Patterning. Science, 2011, 331, 1168-1172.	12.6	221

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109	Improved Synthesis of Graphene Oxide. ACS Nano, 2010, 4, 4806-4814.	14.6	10,035
110	Spontaneous high-concentration dispersions and liquid crystals of graphene. Nature Nanotechnology, 2010, 5, 406-411.	31.5	532
111	Revealing stacking sequences in inverse opals by microradian X-ray diffraction. Europhysics Letters, 2010, 89, 14002.	2.0	13
112	Corrugation of Chemically Converted Graphene Monolayers on SiO₂. ACS Nano, 2010, 4, 3095-3102.	14.6	42
113	Kinetics of Diazonium Functionalization of Chemically Converted Graphene Nanoribbons. ACS Nano, 2010, 4, 1949-1954.	14.6	333
114	Patterning Graphene through the Self-Assembled Templates: Toward Periodic Two-Dimensional Graphene Nanostructures with Semiconductor Properties. Journal of the American Chemical Society, 2010, 132, 14730-14732.	13.7	165
115	Graphene Nanoribbon Devices Produced by Oxidative Unzipping of Carbon Nanotubes. ACS Nano, 2010, 4, 5405-5413.	14.6	130
116	Lower-Defect Graphene Oxide Nanoribbons from Multiwalled Carbon Nanotubes. ACS Nano, 2010, 4, 2059-2069.	14.6	539
117	Graphene Electronics, Unzipped. IEEE Spectrum, 2010, 47, 28-33.	0.7	12
118	Electronic transport in monolayer graphene nanoribbons produced by chemical unzipping of carbon nanotubes. Applied Physics Letters, 2009, 95, .	3.3	74
119	Currentâ€“voltageâ€“temperature characteristics of DNA origami. Nanotechnology, 2009, 20, 175102.	2.6	18
120	Large-scale ZnO inverse opal films fabricated by a solâ€“gel technique. Superlattices and Microstructures, 2009, 45, 624-629.	3.1	21
121	Longitudinal unzipping of carbon nanotubes to form graphene nanoribbons. Nature, 2009, 458, 872-876.	27.8	3,246
122	Double Stacking Faults in Convectively Assembled Crystals of Colloidal Spheres. Langmuir, 2009, 25, 10408-10412.	3.5	54
123	Structural and magnetic properties of inverse opal photonic crystals studied by x-ray diffraction, scanning electron microscopy, and small-angle neutron scattering. Physical Review B, 2009, 79, .	3.2	24
124	Ultrasmall-angle X-ray scattering analysis of photonic crystal structure. Journal of Experimental and Theoretical Physics, 2009, 109, 29-34.	0.9	13
125	Method to assess the homogeneity of partially crystallized glasses: Application to a photo-thermo-refractive glass. Journal of Non-Crystalline Solids, 2009, 355, 1760-1768.	3.1	18
126	Lithographic Graphitic Memories. ACS Nano, 2009, 3, 2760-2766.	14.6	52

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127	DNA origami impedance measurement at room temperature. Journal of Chemical Physics, 2009, 130, 171101.	3.0	12
128	Angle-dependent laser diffraction in inverse opal photonic crystals. Superlattices and Microstructures, 2008, 44, 626-632.	3.1	9
129	Directional radiation pattern of luminescent photonic crystals at frequencies near the second photonic stop band. JETP Letters, 2008, 87, 672-676.	1.4	1
130	Electronic two-terminal bistable graphitic memories. Nature Materials, 2008, 7, 966-971.	27.5	137
131	Impedance measurements on a DNA junction. Journal of Chemical Physics, 2008, 128, 201103.	3.0	10
132	Ordered arrays of silicon pillars with controlled height and aspect ratio. Nanotechnology, 2007, 18, 305307.	2.6	33
133	Phase manipulated multi-beam holographic lithography for tunable optical lattices. Optics Express, 2007, 15, 7032.	3.4	22
134	Optical study of photonic crystal films made of polystyrene microspheres. Mendeleev Communications, 2007, 17, 4-6.	1.6	16
135	Topology constrained magnetic structure of Ni photonic crystals. Physica B: Condensed Matter, 2007, 397, 23-26.	2.7	26
136	Domain mapping of inverse photonic crystals by laser diffraction. Physics Letters, Section A: General, Atomic and Solid State Physics, 2007, 366, 516-522.	2.1	27
137	Photonic crystals with a specified bandgap width. JETP Letters, 2007, 86, 317-320.	1.4	1
138	Directional emission from rare earth ions in inverse photonic crystals. Applied Physics B: Lasers and Optics, 2007, 89, 251-255.	2.2	39
139	Structural and optical properties of titania photonic crystal films prepared by a solâ€“gel method. Mendeleev Communications, 2007, 17, 1-3.	1.6	7
140	Nanoporous electrochromic coatings based on tungsten oxide. Doklady Chemistry, 2006, 407, 31-34.	0.9	1
141	Inverse photonic crystals based on silica. Doklady Chemistry, 2006, 408, 61-64.	0.9	6
142	Photonic crystals: New ideas and future prospects (SPIE Photonics Europe 2006 Conference). Inorganic Materials, 2006, 42, 1404-1407.	0.8	1
143	Preparation-dependent properties of Ca(Cu,Mn)7O12 CMR materials. Solid State Communications, 2006, 139, 380-385.	1.9	3
144	Synthesis and luminescence properties of opal-based photonic crystal with HEuEDTA. , 2006, 6182, 571.		3

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145	Preparation and properties of electrochromic coatings based on nanoparticle tungsten oxide. Mendeleev Communications, 2005, 15, 178-180.	1.6	10
146	Synthesis of SiO2 Photonic Crystals via Self-organization of Colloidal Particles. Inorganic Materials, 2005, 41, 1178-1184.	0.8	13
147	Synthesis and microstructure of silica photonic crystals. Mendeleev Communications, 2004, 14, 165-167.	1.6	12
148	Silica photonic crystals: synthesis and optical properties. Solid State Ionics, 2004, 172, 477-479.	2.7	28
149	Title is missing!. Inorganic Materials, 2003, 39, 280-284.	0.8	4