Vladimir Sivakov

List of Publications by Year
in descending order

94	2,715	201575 27	189801 50
papers	citations	h-index	g-index

96	96	96	3327
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Silicon Nanowire-Based Solar Cells on Glass: Synthesis, Optical Properties, and Cell Parameters. Nano Letters, 2009, 9, 1549-1554.	4.5	469
2	Preparation and investigation of structure, magnetic and dielectric properties of (BaFe11.9Al0.1O19)1- -(BaTiO3) bicomponent ceramics. Ceramics International, 2018, 44, 21295-21302.	2.3	130
3	Germanium Nanowires and Coreâ^'Shell Nanostructures by Chemical Vapor Deposition of [Ge(C5H5)2]. Chemistry of Materials, 2004, 16, 2449-2456.	3.2	118
4	Axial p-n Junctions Realized in Silicon Nanowires by Ion Implantation. Nano Letters, 2009, 9, 1341-1344.	4.5	107
5	Realization of Vertical and Zigzag Single Crystalline Silicon Nanowire Architectures. Journal of Physical Chemistry C, 2010, 114, 3798-3803.	1.5	97
6	Roughness of silicon nanowire sidewalls and room temperature photoluminescence. Physical Review B, 2010, 82, .	1.1	94
7	Nanostructured films of iron, tin and titanium oxides by chemical vapor deposition. Thin Solid Films, 2006, 502, 88-93.	0.8	86
8	Phase-Selective Deposition and Microstructure Control in Iron Oxide Films Obtained by Single-Source CVD. Chemical Vapor Deposition, 2002, 8, 277-283.	1.4	77
9	In Situ Electron Microscopy Mechanical Testing of Silicon Nanowires Using Electrostatically Actuated Tensile Stages. Journal of Microelectromechanical Systems, 2010, 19, 663-674.	1.7	70
10	Studies of silicon nanoparticles uptake and biodegradation in cancer cells by Raman spectroscopy. Nanomedicine: Nanotechnology, Biology, and Medicine, 2016, 12, 1931-1940.	1.7	70
11	Function composites materials for shielding applications: Correlation between phase separation and attenuation properties. Journal of Alloys and Compounds, 2019, 771, 238-245.	2.8	63
12	The SERS and TERS Effects Obtained by Gold Droplets on Top of Si Nanowires. Nano Letters, 2007, 7, 75-80.	4.5	62
13	Nanoparticles prepared from porous silicon nanowires for bio-imaging and sonodynamic therapy. Nanoscale Research Letters, 2014, 9, 463.	3.1	62
14	Tunable nanoporous silicon oxide templates by swift heavy ion tracks technology. Nanotechnology, 2016, 27, 115305.	1.3	61
15	Optical properties of silicon nanowire arrays formed by metal-assisted chemical etching: evidences for light localization effect. Nanoscale Research Letters, 2012, 7, 524.	3.1	58
16	Nanowires Enabling Signalâ€Enhanced Nanoscale Raman Spectroscopy. Small, 2008, 4, 398-404.	5.2	54
17	Evidence of the formation of mixed-metal garnets via solâ€“gel synthesis. Optical Materials, 2003, 22, 241-250.	1.7	48
18	Signal enhancement in nano-Raman spectroscopy by gold caps on silicon nanowires obtained by vapourâ€“liquidâ€“solid growth. Nanotechnology, 2007, 18, 035503.	1.3	48

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19	Rapid detection of the bacterial biomarker pyocyanin in artificial sputum using a SERS-active silicon nanowire matrix covered by bimetallic noble metal nanoparticles. Talanta, 2019, 202, 171-177.	2.9	44
20	Silicon nanowire growth by electron beam evaporation: Kinetic and energetic contributions to the growth morphology. Journal of Crystal Growth, 2007, 300, 288-293.	0.7	39
21	Growth peculiarities during vaporâ€“liquidâ€“solid growth of silicon nanowhiskers by electron-beam evaporation. Applied Physics A: Materials Science and Processing, 2006, 85, 311-315.	1.1	36
22	Heterojunction based hybrid silicon nanowire solar cell: surface termination, photoelectron and photoemission spectroscopy study. Progress in Photovoltaics: Research and Applications, 2014, 22, 1050-1061.	4.4	33
23	Silver nanostructures evolution in porous SiO2/p-Si matrices for wide wavelength surface-enhanced Raman scattering applications. MRS Communications, 2018, 8, 95-99.	0.8	33
24	Silver nanostructures formation in porous Si/SiO2 matrix. Journal of Crystal Growth, 2014, 400, 21-26.	0.7	32
25	Linear and Non-Linear Optical Imaging of Cancer Cells with Silicon Nanoparticles. International Journal of Molecular Sciences, 2016, 17, 1536.	1.8	32
26	Laser induced local and periodic phase transformations in iron oxide thin films obtained by chemical vapour deposition. Applied Surface Science, 2005, 247, 513-517.	3.1	30
27	Silicon nanowire oxidation: the influence of sidewall structure and gold distribution. Nanotechnology, 2009, 20, 405607.	1.3	30
28	Optical Properties of Silicon Nanowires Fabricated by Environment-Friendly Chemistry. Nanoscale Research Letters, 2016, 11, 357.	3.1	27
29	Antimicrobial Effect of Biocompatible Silicon Nanoparticles Activated Using Therapeutic Ultrasound. Langmuir, 2017, 33, 2603-2609.	1.6	27
30	Self-organized spatially separated silver 3D dendrites as efficient plasmonic nanostructures for surface-enhanced Raman spectroscopy applications. Journal of Applied Physics, 2019, 126, .	1.1	27
31	Growth, Structure and Optical Properties of Silicon Nanowires Formed by Metal-Assisted Chemical Etching. Journal of Nanoelectronics and Optoelectronics, 2012, 7, 602-606.	0.1	27
32	Increasing the efficiency of polymer solar cells by silicon nanowires. Nanotechnology, 2011, 22, 315401.	1.3	26
33	One-Step Chemical Vapor Growth of Ge/SiC_xN_y Nanocables. Journal of the American Chemical Society, 2007, 129, 9746-9752.	6.6	24
34	Glow discharge techniques in the chemical analysis of photovoltaic materials. Progress in Photovoltaics: Research and Applications, 2014, 22, 371-382.	4.4	23
35	On the morphology of Si/SiO2/Ni nanostructures with swift heavy ion tracks in silicon oxide. Journal of Surface Investigation, 2014, 8, 805-813.	0.1	23
36	Positive magnetoresistive effect in Si/SiO2(Cu/Ni) nanostructures. Sensors and Actuators A: Physical, 2014, 216, 64-68.	2.0	23

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37	Gold nanoflowers grown in a porous Si/SiO2 matrix: The fabrication process and plasmonic properties. Applied Surface Science, 2020, 507, 144989.	3.1	23
38	XPS investigations of MOCVD tin oxide thin layers on Si nanowires array. Results in Physics, 2018, 11, 507-509.	2.0	22
39	Recycling of silicon: from industrial waste to biocompatible nanoparticles for nanomedicine. Materials Research Express, 2017, 4, 095026.	0.8	20
40	Photoluminescence and Raman Scattering in Arrays of Silicon Nanowires. Journal of Nanoelectronics and Optoelectronics, 2011, 6, 519-524.	0.1	18
41	Chemical and optical characterisation of atomic layer deposition aluminium doped ZnO films for photovoltaics by glow discharge optical emission spectrometry. Journal of Analytical Atomic Spectrometry, 2011, 26, 822.	1.6	17
42	Growth of axial SiGe heterostructures in nanowires using pulsed laser deposition. Nanotechnology, 2011, 22, 305604.	1.3	16
43	Radiofrequency Hyperthermia of Cancer Cells Enhanced by Silicic Acid Ions Released During the Biodegradation of Porous Silicon Nanowires. ACS Omega, 2019, 4, 10662-10669.	1.6	16
44	Electronic and atomic structure studies of tin oxide layers using X-ray absorption near edge structure spectroscopy data modelling. Materials Science in Semiconductor Processing, 2019, 99, 28-33.	1.9	16
45	Photoluminescence of samples produced by electroless wet chemical etching: Between silicon nanowires and porous structures. Physica Status Solidi (A) Applications and Materials Science, 2011, 208, 893-899.	0.8	14
46	Epitaxial vapor-liquid-solid growth of silicon nano-whiskers by electron beam evaporation. Physica Status Solidi (A) Applications and Materials Science, 2006, 203, 3692-3698.	0.8	13
47	Biodegradable Porous Silicon Nanocontainers as an Effective Drug Carrier for Regulation of the Tumor Cell Death Pathways. ACS Biomaterials Science and Engineering, 2019, 5, 6063-6071.	2.6	13
48	Surface deep profile synchrotron studies of mechanically modified top-down silicon nanowires array using ultrasoft X-ray absorption near edge structure spectroscopy. Scientific Reports, 2019, 9, 8066.	1.6	13
49	The Study of Latex Sphere Lithography for High Aspect Ratio Dry Silicon Etching. Physica Status Solidi (A) Applications and Materials Science, 2020, 217, 1900535.	0.8	13
50	Effects of light localization in photoluminescence and Raman scattering in silicon nanostructures. Bulletin of the Russian Academy of Sciences: Physics, 2010, 74, 1712-1714.	0.1	12
51	A Time-Resolved Numerical Study of the Vaporâ€“Liquidâ€“Solid Growth Kinetics Describing the Initial Nucleation Phase as well as Pulsed Deposition Processes. Nano Letters, 2013, 13, 873-883.	4.5	12
52	Optical properties of nanowire structures produced by the metal-assisted chemical etching of lightly doped silicon crystal wafers. Semiconductors, 2014, 48, 1613-1618.	0.2	11
53	Raman Signal Enhancement Tunable by Gold-Covered Porous Silicon Films with Different Morphology. Sensors, 2020, 20, 5634.	2.1	11
54	Morphology and Microstructure Evolution of Gold Nanostructures in the Limited Volume Porous Matrices. Sensors, 2020, 20, 4397.	2.1	11

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55	Silver Coated Platinum Coreâ€“Shell Nanostructures on Etched Si Nanowires: Atomic Layer Deposition (ALD) Processing and Application in SERS. ChemPhysChem, 2010, 11, 1995-2000.	1.0	9
56	Silicon Suboxides as Driving Force for Efficient Lightâ€Enhanced Hydrogen Generation on Silicon Nanowires. Small, 2021, 17, e2007650.	5.2	9
57	Wet - Chemically Etched Silicon Nanowire Architectures: Formation and Properties. , 2011, , .		8
58	Multijunction a-Si:H/c-Si solar cells with vertically-aligned architecture based on silicon nanowires. Materials Today: Proceedings, 2017, 4, 6797-6803.	0.9	8
59	Photoannealing of Merocyanine Aggregates. Journal of Physical Chemistry A, 2018, 122, 9821-9832.	1.1	8
60	Novel Discovery of Silicon. Journal of Nanoelectronics and Optoelectronics, 2012, 7, 583-590.	0.1	8
61	Influence of surface pre-treatment on the electronic levels in silicon MaWCE nanowires. Nanotechnology, 2015, 26, 195705.	1.3	7
62	Thermally induced evolution of the structure and optical properties of silicon nanowires. Results in Physics, 2020, 18, 103258.	2.0	7
63	Composition, morphology and particle size control in nanocrystalline iron oxide films grown by single-source CVD. European Physical Journal Special Topics, 2001, 11, Pr3-487-Pr3-494.	0.2	6
64	Fluorescence signals of coreâ€“shell quantum dots enhanced by single crystalline gold caps on silicon nanowires. Nanotechnology, 2009, 20, 165301.	1.3	6
65	Silver mirror reaction as a simple method for silicon nanowires functionalization. Materials Research Express, 2019, 6, 105057.	0.8	6
66	Dependence of the efficiency of Raman scattering in silicon nanowire arrays on the excitation wavelength. Semiconductors, 2013, 47, 354-357.	0.2	5
67	Atomic and electronic structure peculiarities of silicon wires formed on substrates with varied resistivity according to ultrasoft X-ray emission spectroscopy. Technical Physics Letters, 2015, 41, 344-347.	0.2	5
68	Temperature dynamics of the electronic structure in dilute Bi-Sn alloys. Physical Review B, 2018, 97, .	1.1	5
69	Electronic levels in silicon MaWCE nanowires: evidence of a limited diffusion of Ag. Nanotechnology, 2015, 26, 425702.	1.3	4
70	Synchrotron studies of top-down grown silicon nanowires. Results in Physics, 2018, 9, 1494-1496.	2.0	4
71	Reflectance Modification in Nanostructured Silicon Layers with Gradient Porosity. Bulletin of the Lebedev Physics Institute, 2019, 46, 314-318.	0.1	3
72	Growth mechanism study of silver nanostructures in a limited volume. Materials Chemistry and Physics, 2022, 283, 126016.	2.0	3

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73	Silicon Nanowires Decorated with Silver Nanoparticles for Photoassisted Hydrogen Generation. ACS Applied Energy Materials, 2022, 5, 7466-7472.	2.5	3
74	Phase Selective Deposition and Microstructure Control in Iron Oxide Films Obtained by Single-Source CVD.. ChemInform, 2003, 34, no.	0.1	2
75	Influence of the Substrate and Precursor on the Magnetic and Magneto-transport Properties in Magnetite Films. Current Nanoscience, 2012, 8, 659-668.	0.7	2
76	Wet â€“ Chemically Etched Silicon Nanowire Solar Cells: Fabrication and Advanced Characterization. , 2012, , .		2
77	Self-Organization of Plasmonic Nanostructures in Pores of Silica Template for SERS. NATO Science for Peace and Security Series B: Physics and Biophysics, 2019, , 75-90.	0.2	2
78	On the possibility of PhotoEmission Electron Microscopy for E. coli advanced studies. Results in Physics, 2020, 16, 102821.	2.0	2
79	SERS ACTIVITY OF SILVER NANOSTRUCTURES WITH DIFFERENT SHAPE IN PORES OF SiO2 TEMPLATE ON n-Si. , 2017, , 216-219.		2
80	Structural, optical, and electrical properties of silicon nanowires for solar cells. , 2010, , .		1
81	Atomic layer deposition precursor step repetition and surface plasma pretreatment influence on semiconductorâ€“insulatorâ€“semiconductor heterojunction solar cell. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2015, 33, 041101.	0.9	1
82	Index matching at the nanoscale: light scattering by coreâ€“shell Si/SiO_xnanowires. Nanotechnology, 2016, 27, 435202.	1.3	1
83	Self-organized growth of germanium nanocolumns. Materials Research Express, 2017, 4, 035003.	0.8	1
84	The Problem of Optimal Plasmonic Nanostructures Choice for SERS Applications. , 2018, , .		1
85	DEPENDENCE OF THE SURFACE-ENHANCED RAMAN SCATTERING SIGNAL ON THE SHAPE OF SILVER NANOSTRUCTURES GROWN IN THE SiO2 /n-Si POROUS TEMPLATE. Pribory I Metody Izmerenij, 2017, 8, 228-235.	0.1	1
86	<I>a</I>-Si:H/<I>c</I>-Si Heterojunction Solar Cell Based on Top-Down Silicon Nanostructures. Journal of Nanoelectronics and Optoelectronics, 2015, 9, 723-727.	0.1	1
87	Dps protein localization studies in nanostructured silicon matrix by scanning electron microscopy. Kondensirovannye Sredy Mezhfaznye Granitsy, 2021, 23, 644-648.	0.1	1
88	Nanowire device concepts for thin film photovoltaics. , 2012, , .		0
89	Peculiarities of electronic structure and composition in ultrasound milled silicon nanowires. Results in Physics, 2020, 19, 103332.	2.0	0
90	FROM VAPOR-LIQUID-SOLID TO WET CHEMICALLY ETCHED SILICON NANOWIRES. , 2011, , .		0

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91	NOVEL SILVER NANOSTRUCTURES FOR SURFACE ENHANCED RAMAN SPECTROSCOPY. , 2013, , .		0
92	Synthesis and microstructure of p-type porous gallium phosphide layers. Physical Sciences and Technology, 2017, 4, 54-58.	0.0	0
93	Advantages and prospects for using silicon nanostructures for solar driven hydrogen generation. Recent Contributions To Physics, 2020, 74, .	0.1	0
94	Localization of Dps protein in porous silicon nanowires matrix. Results in Physics, 2022, 35, 105348.	2.0	0