

Alexandra A Suvorova

List of Publications by Year in descending order

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96
papers

3,679
citations

186209

28
h-index

133188

59
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96
all docs

96
docs citations

96
times ranked

4790
citing authors

#	ARTICLE	IF	CITATIONS
1	Catalytic oxidation of organic pollutants on pristine and surface nitrogen-modified carbon nanotubes with sulfate radicals. <i>Applied Catalysis B: Environmental</i> , 2014, 154-155, 134-141.	10.8	437
2	Surface controlled generation of reactive radicals from persulfate by carbocatalysis on nanodiamonds. <i>Applied Catalysis B: Environmental</i> , 2016, 194, 7-15.	10.8	390
3	Influence of Nanowire Density on the Shape and Optical Properties of Ternary InGaAs Nanowires. <i>Nano Letters</i> , 2006, 6, 599-604.	4.5	222
4	Heteroatom (N or Nâ€¦S)â€¦Doping Induced Layered and Honeycomb Microstructures of Porous Carbons for CO ₂ Capture and Energy Applications. <i>Advanced Functional Materials</i> , 2016, 26, 8651-8661.	7.8	182
5	A New Metal-Free Carbon Hybrid for Enhanced Photocatalysis. <i>ACS Applied Materials & Interfaces</i> , 2014, 6, 16745-16754.	4.0	167
6	Surface-tailored nanodiamonds as excellent metal-free catalysts for organic oxidation. <i>Carbon</i> , 2016, 103, 404-411.	5.4	164
7	Effect of deposition conditions on mechanical properties of low-temperature PECVD silicon nitride films. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2006, 435-436, 453-459.	2.6	161
8	One-pot hydrothermal synthesis of ZnO-reduced graphene oxide composites using Zn powders for enhanced photocatalysis. <i>Chemical Engineering Journal</i> , 2013, 229, 533-539.	6.6	137
9	Thermally stable coexistence of liquid and solid phases in gallium nanoparticles. <i>Nature Materials</i> , 2016, 15, 995-1002.	13.3	124
10	Magnesium oxide as a candidate high- ϵ_r gate dielectric. <i>Applied Physics Letters</i> , 2006, 88, 142901.	1.5	83
11	Precipitation of iron silicate nanoparticles in early Precambrian oceans marks Earth's first iron age. <i>Geology</i> , 2015, 43, 303-306.	2.0	83
12	Greenalite precipitation linked to the deposition of banded iron formations downslope from a late Archean carbonate platform. <i>Precambrian Research</i> , 2017, 290, 49-62.	1.2	72
13	Effect of annealing on the structural, electrical and magnetic properties of Gd-implanted ZnO thin films. <i>Journal of Materials Science</i> , 2012, 47, 1119-1126.	1.7	69
14	Nanogeochemistry of hydrothermal magnetite. <i>Contributions To Mineralogy and Petrology</i> , 2018, 173, 1.	1.2	63
15	Long-wavelength emission in structures with quantum dots formed in the stimulated decomposition of a solid solution at strained islands. <i>Semiconductors</i> , 1999, 33, 901-905.	0.2	57
16	Dust to dust: Evidence for the formation of "primary" hematite dust in banded iron formations via oxidation of iron silicate nanoparticles. <i>Precambrian Research</i> , 2016, 284, 49-63.	1.2	54
17	Er ₂ O ₃ as a high-K dielectric candidate. <i>Applied Physics Letters</i> , 2007, 91, 091914.	1.5	49
18	Ultrathin High-Quality SnTe Nanoplates for Fabricating Flexible Near-Infrared Photodetectors. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 31810-31822.	4.0	49

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19	Demonstrating the Capability of the High-Performance Plasmonic Gallium–Graphene Couple. ACS Nano, 2014, 8, 3031-3041.	7.3	48
20	A FIB-STEM Study of Strontium Segregation and Interface Formation of Directly Assembled La _{0.6} Sr _{0.4} Co _{0.2} Fe _{0.8} O _{3-δ} Cathode on Y ₂ O ₃ -ZrO ₂ Electrolyte of Solid Oxide Fuel Cells. Journal of the Electrochemical Society, 2018, 165, F417-F429.	1.3	41
21	Colloidal Single-Layer Photocatalysts for Methanol–Storable Solar H ₂ Fuel. Advanced Materials, 2019, 31, e1905540.	11.1	39
22	Size dependence of the dielectric function of silicon-supported plasmonic gold nanoparticles. Physical Review B, 2010, 82, .	1.1	38
23	Structural and optical properties of ZnO thin films by rf magnetron sputtering with rapid thermal annealing. Applied Physics Letters, 2008, 92, .	1.5	37
24	GaMg Alloy Nanoparticles for Broadly Tunable Plasmonics. Small, 2011, 7, 751-756.	5.2	37
25	Ion implantation in diamond using 30keV Ga ⁺ focused ion beam. Diamond and Related Materials, 2011, 20, 1160-1164.	1.8	35
26	Cubic Phase Sn-Rich GeSn Nanocrystals in a Ge Matrix. Crystal Growth and Design, 2014, 14, 1617-1622.	1.4	33
27	Local stresses induced by nanoscale As–Sb clusters in GaAs matrix. Applied Physics Letters, 2002, 80, 377-379.	1.5	32
28	Transient enhanced diffusion of aluminum in SiC during high temperature ion implantation. Journal of Applied Physics, 1999, 86, 6039-6042.	1.1	31
29	In–Ga intermixing in low-temperature grown GaAs delta doped with In. Applied Physics Letters, 1999, 74, 1442-1444.	1.5	28
30	Enhanced precipitation of excess As on antimony delta layers in low-temperature-grown GaAs. Applied Physics Letters, 1999, 74, 1588-1590.	1.5	28
31	Enhanced As–Sb intermixing of GaSb monolayer superlattices in low-temperature grown GaAs. Applied Physics Letters, 2001, 79, 1294-1296.	1.5	26
32	Capacitance-voltage profiling of Au/n-GaAs Schottky barrier structures containing a layer of self-organized InAs quantum dots. Semiconductors, 1998, 32, 1096-1100.	0.2	25
33	ZrO ₂ film interfaces with Si and SiO ₂ . Journal of Applied Physics, 2005, 98, 033506.	1.1	25
34	In situ assembled La _{0.8} Sr _{0.2} MnO ₃ cathodes on a Y ₂ O ₃ –ZrO ₂ electrolyte of solid oxide fuel cells – interface and electrochemical activity. RSC Advances, 2016, 6, 99211-99219.	1.7	25
35	Arrays of strained InAs quantum dots in an (In Ga)As matrix, grown on InP substrates by molecular-beam epitaxy. Semiconductors, 1997, 31, 1080-1083.	0.2	24
36	Secondary-electron emission mechanism of LiF film by (e,2e) spectroscopy. Surface Science, 2004, 548, 187-199.	0.8	23

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37	Multifunctional Nanocrystalline Thin Films of Er ₂ O ₃ : Interplay between Nucleation Kinetics and Film Characteristics. <i>Advanced Functional Materials</i> , 2007, 17, 3607-3612.	7.8	22
38	The Iron Distribution and Magnetic Properties of Schistosome Eggshells: Implications for Improved Diagnostics. <i>PLoS Neglected Tropical Diseases</i> , 2013, 7, e2219.	1.3	22
39	Optical properties of InAlAs quantum dots in an AlGaAs matrix. <i>Applied Surface Science</i> , 1998, 123-124, 381-384.	3.1	21
40	TEM and cathodoluminescence studies of porous SiC. <i>Semiconductor Science and Technology</i> , 1998, 13, 1111-1116.	1.0	21
41	Magnetization reversal in exchange-biased $\text{Ni}/\text{NiO}/\text{Ni}$ layered structures. <i>Physical Review B</i> , 2007, 76, .	1.1	20
42	Evidence and origin of different types of sedimentary organic matter from a Paleoproterozoic orogenic Au deposit. <i>Precambrian Research</i> , 2017, 299, 319-338.	1.2	20
43	Lateral association of vertically-coupled quantum dots. <i>Microelectronic Engineering</i> , 1998, 43-44, 37-43.	1.1	19
44	Experimental evidence for the role of nonuniform modes in the asymmetric magnetization reversal of a Ni/NiO system. <i>Physical Review B</i> , 2006, 74, .	1.1	19
45	Diamond nanocrystals in hydrogenated amorphous carbon grown by ion sputtering of graphite. <i>The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties</i> , 1997, 76, 973-978.	0.6	18
46	Gallium Plasmonic Nanoantennas Unveiling Multiple Kinetics of Hydrogen Sensing, Storage, and Spillover. <i>Advanced Materials</i> , 2021, 33, e2100500.	11.1	18
47	Long-wavelength emission from self-organized InAs quantum dots on GaAs substrates. <i>Microelectronics Journal</i> , 2000, 31, 1-7.	1.1	17
48	Measurements of insulator band parameters using combination of single-electron and two-electron spectroscopy. <i>Solid State Communications</i> , 2004, 129, 389-393.	0.9	17
49	Formation of InSb quantum dots in a GaSb matrix using molecular-beam epitaxy. <i>Microelectronic Engineering</i> , 1998, 43-44, 85-90.	1.1	15
50	Secondary electron imaging of SiC-based structures in secondary electron microscope. <i>Surface Science</i> , 2007, 601, 4428-4432.	0.8	15
51	Defect characterization in high temperature implanted $^6\text{He}^-$ SiC using TEM. <i>Nuclear Instruments & Methods in Physics Research B</i> , 1997, 127-128, 347-349.	0.6	14
52	Tranquillityite: The last lunar mineral comes down to Earth. <i>Geology</i> , 2012, 40, 83-86.	2.0	14
53	Nanoscale partitioning of Ru, Ir, and Pt in base-metal sulfides from the Caridad chromite deposit, Cuba. <i>American Mineralogist</i> , 2018, 103, 1208-1220.	0.9	14
54	Large area van der Waals epitaxy of VI CdSe thin films for flexible optoelectronics and full-color imaging. <i>Nano Research</i> , 2022, 15, 368-376.	5.8	14

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55	Lateral association of vertically coupled quantum dots. <i>Semiconductors</i> , 1997, 31, 722-725.	0.2	13
56	Structural transformations in low-temperature grown GaAs:Sb. <i>Journal Physics D: Applied Physics</i> , 2001, 34, A15-A18.	1.3	13
57	Formation of InSb quantum dots in a GaSb matrix. <i>Journal of Electronic Materials</i> , 1998, 27, 414-417.	1.0	12
58	Diffusion of boron in 6H and 4H SiC coimplanted with boron and nitrogen ions. <i>Journal of Applied Physics</i> , 2004, 96, 4960-4964.	1.1	12
59	The occurrence and composition of chevkinite-(Ce) and perrierite-(Ce) in tholeiitic intrusive rocks and lunar mare basalt. <i>American Mineralogist</i> , 2014, 99, 1911-1921.	0.9	12
60	The formation of fluvio-lacustrine ferruginous pisoliths in the extensive palaeochannels of the Yilgarn Craton, Western Australia. <i>Sedimentary Geology</i> , 2014, 313, 32-44.	1.0	12
61	Colloidal quasi-one-dimensional dual semiconductor core/shell nanorod couple heterostructures with blue fluorescence. <i>Nanoscale</i> , 2019, 11, 10190-10197.	2.8	12
62	Charge-Related Problems Associated with X-Ray Microanalysis in the Variable Pressure Scanning Electron Microscope at Low Pressures. <i>Microscopy and Microanalysis</i> , 2003, 9, 155-165.	0.2	11
63	Indium layers in low-temperature gallium arsenide: Structure and how it changes under annealing in the temperature range 500–700 Å°C. <i>Semiconductors</i> , 1998, 32, 683-688.	0.2	10
64	Transformation of YSZ under high fluence argon ion implantation. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2014, 326, 283-288.	0.6	9
65	HREM study of ion implantation in 6H-SiC at high temperatures. <i>Journal of Electron Microscopy</i> , 1997, 46, 271-279.	0.9	8
66	Electron escape from self-assembled InAs/GaAs quantum dot stacks. <i>Physica B: Condensed Matter</i> , 1998, 249-251, 267-270.	1.3	8
67	Bistability of charge accumulated in low-temperature-grown GaAs. <i>Applied Physics Letters</i> , 1998, 73, 2796-2798.	1.5	8
68	Fabrication of Si–C–N compounds in silicon carbide by ion implantation. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2009, 267, 1294-1298.	0.6	8
69	Comparison of interfaces for (Ba,Sr)TiO3 films deposited on Si and SiO2/Si substrates. <i>Journal of Applied Physics</i> , 2004, 95, 2672-2675.	1.1	7
70	Correlation between microstructural and magnetic properties of Tb implanted ZnO. <i>AIP Conference Proceedings</i> , 2013, , .	0.3	7
71	Porous Carbon: Heteroatom (N or N-S)-Doping Induced Layered and Honeycomb Microstructures of Porous Carbons for CO2 Capture and Energy Applications (<i>Adv. Funct. Mater.</i> 47/2016). <i>Advanced Functional Materials</i> , 2016, 26, 8650-8650.	7.8	7
72	Modulation of a quantum well potential by a quantum-dot array. <i>Semiconductors</i> , 1997, 31, 88-91.	0.2	6

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73	Stacked InAs/InGaAs quantum dot heterostructures for optical sources emitting in the 1.3 Åµm wavelength range. <i>Semiconductors</i> , 2000, 34, 594-597.	0.2	6
74	Anisotropy of the spatial distribution of In(Ga)As quantum dots in In(Ga)As-GaAs multilayer heterostructures studied by X-ray and synchrotron diffraction and transmission electron microscopy. <i>Semiconductors</i> , 2001, 35, 932-940.	0.2	5
75	Enhancing Properties of High-Temperature Superconducting Step-Edge Josephson Junctions by Nano-Multilayers with a Small Mismatch. <i>Advanced Materials Interfaces</i> , 2014, 1, 1300112.	1.9	5
76	Accumulation of majority charge carriers in GaAs layers containing arsenic nanoclusters. <i>Semiconductors</i> , 2000, 34, 1068-1072.	0.2	4
77	CHARACTERISTICS OF LOW TEMPERATURE PECVD SILICON NITRIDE FOR MEMS STRUCTURAL MATERIALS. <i>International Journal of Modern Physics B</i> , 2006, 20, 3799-3804.	1.0	4
78	MBE Growth and Characterization of Composite InAlAs/In(Ga)As Vertically Aligned Quantum Dots. <i>Materials Research Society Symposia Proceedings</i> , 1999, 571, 109.	0.1	3
79	Effect of Implantation Temperature on Redistribution of Al in SiC during Annealing. <i>Materials Science Forum</i> , 2004, 457-460, 897-900.	0.3	3
80	Structural and compositional complexity of nitrogen implantation in silicon carbide. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2012, 272, 462-465.	0.6	3
81	Accumulation of electrons in GaAs layers grown at low temperatures and containing arsenic clusters. <i>Semiconductors</i> , 1998, 32, 1044-1047.	0.2	2
82	Application of two-electron spectroscopy in reflection for studying electronic structure of surfaces and thin films. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2007, 161, 147-149.	0.8	2
83	Characterization of plasmonic nanostructures by analytical TEM. <i>Journal of Physics: Conference Series</i> , 2012, 371, 012078.	0.3	2
84	Processing and Properties of BioCeramic Coatings onto 3D Ti-Mesh by DipCasting Method. <i>International Journal of Applied Ceramic Technology</i> , 2014, 11, 1030-1038.	1.1	2
85	Effect of Interface energy and electron transfer on shape, plasmon resonance and SERS activity of supported surfactant-free gold nanoparticles. <i>RSC Advances</i> , 2014, 4, 29660.	1.7	2
86	Synthesis of buried silicon nitride layer in SiC by nitrogen implantation. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2007, 257, 217-221.	0.6	1
87	Spin-orbit effects in the (e,2e) scattering from a W(110) surface and thin gold layer. <i>Journal of Physics: Conference Series</i> , 2011, 288, 012015.	0.3	1
88	Optical Properties of Silicon Semiconductor-Supported Gold Nanoparticles Obtained by Sputtering. <i>Journal of Nanoscience and Nanotechnology</i> , 2012, 12, 8594-8599.	0.9	1
89	Capacitance Spectroscopy of Thin GaAs Layers Grown by Molecular Beam Epitaxy at Low Temperatures. <i>Solid State Phenomena</i> , 1997, 57-58, 495-500.	0.3	0
90	Majority carrier accumulation in low-temperature-grown GaAs layer inserted into n-and p-type matrices. , 0, , .		0

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91	Enhanced intermixing in anion and cation sublattices of low-temperature grown GaAs. , 0, , .		0
92	Study of interface formation of (Ba,Sr)TiO ₃ thin films grown by rf sputter deposition on bare Si and thermal SiO ₂ /Si substrates.. Materials Research Society Symposia Proceedings, 2002, 745, 9121/T7.12.1.	0.1	0
93	Structural Materials for NEMS/MEMS Devices. , 2006, , .		0
94	Effects of Ad-atom Diffusivity Throughout Sb-Mediated Formation of Ge/Si Nanoislands. Materials Research Society Symposia Proceedings, 2012, 1411, 45.	0.1	0
95	Spin-related Effects in Scattering of Spin-Polarized Low-energy Electrons from Magnetic and Nonmagnetic Surfaces. Journal of Physics: Conference Series, 2012, 388, 132026.	0.3	0
96	Photocatalysts: Colloidal Single-Layer Photocatalysts for Methanol-Storable Solar H ₂ Fuel (Adv. Mater. 49/2019). Advanced Materials, 2019, 31, 1970348.	11.1	0