Andrei V Sapelkin

List of Publications by Year
in descending order

107	2,190	257101 24	264894 42
papers	citations	h-index	g-index

109	109	109	3533
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	2D colloids in rotating electric fields: A laboratory of strong tunable three-body interactions. Journal of Colloid and Interface Science, 2022, 608, 564-574.	5.0	12
2	High-pressure neutron diffraction study of magnetite, Fe3O4, nanoparticles. Applied Physics Letters, 2022, 120, .	1.5	1
3	DNA-driven dynamic assembly of MoS₂nanosheets. Faraday Discussions, 2021, 227, 233-244.	1.6	3
4	High-fluorescent product of folic acid photodegradation: Optical properties and cell effect. Journal of Photochemistry and Photobiology A: Chemistry, 2021, 407, 113045.	2.0	4
5	Fluorescent Convertible Capsule Coding Systems for Individual Cell Labeling and Tracking. ACS Applied Materials & Interfaces, 2021, 13, 19701-19709.	4.0	8
6	Interpolation method for crystals with many-body interactions. Physical Review B, 2021, 104, .	1.1	1
7	Mean-field model of melting in superheated crystals based on a single experimentally measurable order parameter. Scientific Reports, 2021, 11, 17963.	1.6	5
8	Site-specific release of reactive oxygen species from ordered arrays of microchambers based on polylactic acid and carbon nanodots. Journal of Materials Chemistry B, 2020, 8, 7977-7986.	2.9	7
9	Analysis of the atomic structure of CdS magic-size clusters by X-ray absorption spectroscopy. Nanoscale, 2020, 12, 19325-19332.	2.8	6
10	Universal Effect of Excitation Dispersion on the Heat Capacity and Gapped States in Fluids. Physical Review Letters, 2020, 125, 125501.	2.9	23
11	Molecular nature of breakdown of the folic acid under hydrothermal treatment: a combined experimental and DFT study. Scientific Reports, 2020, 10, 19668.	1.6	10
12	Polylactic Acid-Based Patterned Matrixes for Site-Specific Delivery of Neuropeptides On-Demand: Functional NGF Effects on Human Neuronal Cells. Frontiers in Bioengineering and Biotechnology, 2020, 8, 497.	2.0	8
13	Strange attractors induced by melting in systems with nonreciprocal effective interactions. Physical Review E, 2020, 101, 063205.	0.8	7
14	Pt single-atoms supported on nitrogen-doped carbon dots for highly efficient photocatalytic hydrogen generation. Journal of Materials Chemistry A, 2020, 8, 14690-14696.	5.2	62
15	Laser-triggered drug release from polymeric 3-D micro-structured films via optical fibers. Materials Science and Engineering C, 2020, 110, 110664.	3.8	19
16	Direct Experimental Evidence of Longitudinal and Transverse Mode Hybridization and Anticrossing in Simple Model Fluids. Journal of Physical Chemistry Letters, 2020, 11, 1370-1376.	2.1	11
17	Fluorophore from citric acid and 1,2- ethylenediamine: synthesis and structure research. , 2020, , .		0
18	Sizeâ€controlled grapheneâ€based materials prepared by annealing of pitchâ€based cokes: G band phonon line broadening effects due to high pressure, crystallite size, and merging with Dâ€² band. Journal of Raman Spectroscopy, 2019, 50, 1861-1866.	1.2	8

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19	Manipulating the Optical Properties of Carbon Dots by Fineâ€Tuning their Structural Features. ChemSusChem, 2019, 12, 4432-4441.	3.6	33
20	Gel electrophoresis separation and origins of light emission in fluorophores prepared from citric acid and ethylenediamine. Scientific Reports, 2019, 9, 14665.	1.6	17
21	Luminescent carbon nanoparticles separation and purification. Advances in Colloid and Interface Science, 2019, 274, 102043.	7.0	25
22	Defect-governed double-step activation and directed flame fronts. Physical Review E, 2019, 100, 023203.	0.8	6
23	Experimental validation of interpolation method for pair correlations in model crystals. Journal of Chemical Physics, 2019, 151, 114502.	1.2	12
24	One step hydrothermal functionalization of gold nanoparticles with folic acid. Colloids and Surfaces B: Biointerfaces, 2019, 181, 533-538.	2.5	6
25	Composite multilayer films based on polyelectrolytes and in situ â€formed carbon nanostructures with enhanced photoluminescence and conductivity properties. Journal of Applied Polymer Science, 2019, 136, 47718.	1.3	9
26	X-ray total scattering study of magic-size clusters and quantum dots of cadmium sulphide. Nanoscale, 2019, 11, 21900-21908.	2.8	17
27	Structures of CdSe and CdS Nanoclusters from Ab Initio Random Structure Searching. Journal of Physical Chemistry C, 2019, 123, 29370-29378.	1.5	22
28	Investigating the Effect of Reaction Time on Carbon Dot Formation, Structure, and Optical Properties. ACS Omega, 2019, 4, 21658-21665.	1.6	63
29	High luminescent fluorophore synthesized at atmospheric pressure from citric acid and ethylenediamine. , 2019, , .		0
30	Photoelectrochemical response of carbon dots (CDs) derived from chitosan and their use in electrochemical imaging. Materials Horizons, 2018, 5, 423-428.	6.4	55
31	Nano-engineered microcapsules boost the treatment of persistent pain. Drug Delivery, 2018, 25, 435-447.	2.5	18
32	Comment on â€œBehavior of Supercritical Fluids across the â€˜Frenkel Lineâ€™â€•. Journal of Physical Chemistry B, 2018, 122, 6124-6128.	1.2	17
33	Structural, Optical, Electrical and Electrocatalytic Activity Properties Of Luminescent Organic Carbon Quantum Dots. ChemistrySelect, 2018, 3, 4730-4737.	0.7	1
34	Structure and solvents effects on the optical properties of sugar-derived carbon nanodots. Scientific Reports, 2018, 8, 6559.	1.6	121
35	Dispersion of optical and structural properties in gel column separated carbon nanoparticles. Carbon, 2018, 127, 541-547.	5.4	21
36	Carbon dot aggregates as an alternative to gold nanoparticles for the laser-induced opening of microchamber arrays. Soft Matter, 2018, 14, 9012-9019.	1.2	19

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37	A Beanâ€Like Formation of Germanium Nanoparticles Inside CNTs by the Subsequent Operation of Colloidal Synthesis and Catalytic Chemical Vapor Deposition Methods. Crystal Research and Technology, 2018, 53, 1800123.	0.6	0
38	Solvothermal synthesis of hydrophobic carbon dots in reversed micelles. Journal of Nanoparticle Research, 2018, 20, 1.	0.8	10
39	Liquid-phase synthesis of nanoparticles and nanostructured materials. , 2018, , 1-28.		23
40	Theories of nanoparticle and nanostructure formation in liquid phase. , 2018, , 597-619.		8
41	Thermal carbonization in nanoscale reactors: controlled formation of carbon nanodots inside porous CaCO3 microparticles. Scientific Reports, 2018, 8, 9394.	1.6	10
42	Effect of spatial restriction on the photoluminescent properties of carbon nanomaterials. , 2018, , .		0
43	One-step microwave synthesis of photoluminescent carbon nanoparticles from sodium dextran sulfate water solution. , 2018, , .		0
44	Carbon Nanotubeâ€Quantum Dot Nanohybrids: Coupling with Singleâ€Particle Control in Aqueous Solution. Small, 2017, 13, 1603042.	5.2	22
45	Carbon nanodots: Mechanisms of photoluminescence and principles of application. TrAC - Trends in Analytical Chemistry, 2017, 90, 27-37.	5.8	92
46	Luminescent carbon nanoparticles: synthesis, methods of investigation, applications. Russian Chemical Reviews, 2017, 86, 1157-1171.	2.5	30
47	Spectroscopic super-resolution fluorescence cell imaging using ultra-small Ge quantum dots. Optics Express, 2017, 25, 4240.	1.7	7
48	In Situ Synthesis of Fluorescent Carbon Dots/Polyelectrolyte Nanocomposite Microcapsules with Reduced Permeability and Ultrasound Sensitivity. ACS Nano, 2016, 10, 9608-9615.	7.3	62
49	Local structure of amorphous and nanoscale systems by numerical XANES calculations. Journal of Non-Crystalline Solids, 2016, 451, 10-15.	1.5	2
50	Local structure of Ge quantum dots determined byÂcombined numerical analysis of EXAFS and XANES data. Journal of Synchrotron Radiation, 2016, 23, 253-259.	1.0	7
51	Significance of Bundling Effects on Carbon Nanotubesâ€™ Response to Hydrostatic Compression. Journal of Physical Chemistry C, 2016, 120, 1863-1870.	1.5	3
52	Laser-induced particle size tuning and structural transformations in germanium nanoparticles prepared by stain etching and colloidal synthesis route. Journal of Applied Physics, 2015, 118, .	1.1	4
53	Aerosol assisted chemical vapour deposition of Ga-doped ZnO films for energy efficient glazing: effects of doping concentration on the film growth behaviour and opto-electronic properties. Journal of Materials Chemistry A, 2015, 3, 13039-13049.	5.2	36
54	Structure and effects of annealing in colloidal matrix-free Ge quantum dots. Journal of Synchrotron Radiation, 2015, 22, 105-112.	1.0	7

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55	Synthesis and structure of free-standing germanium quantum dots and their application in live cell imaging. RSC Advances, 2015, 5, 20566-20573.	1.7	32
56	Pressure-Induced Amorphization and a New High Density Amorphous Metallic Phase in Matrix-Free Ge Nanoparticles. Nano Letters, 2015, 15, 7334-7340.	4.5	26
57	Aerosol assisted chemical vapour deposition of transparent conductive ZnO thin films with hexagonal microplate surfaces and ultrahigh haze values. Journal of Materials Chemistry A, 2015, 3, 22311-22315.	5.2	10
58	Origin of mechanical modifications in poly (ether ether ketone)/carbon nanotube composite. Journal of Applied Physics, 2014, 115, .	1.1	5
59	Organo-erbium systems for optical amplification at telecommunications wavelengths. Nature Materials, 2014, 13, 382-386.	13.3	120
60	Resonance Raman spectroscopy of carbon nanotubes: pressure effects on G-mode. High Pressure Research, 2014, 34, 191-197.	0.4	7
61	Looking into the structure of Ge nano-crystals through combined Diffraction/XAFS. Acta Crystallographica Section A: Foundations and Advances, 2014, 70, C1533-C1533.	0.0	0
62	Magnetically Engineered Microcapsules as Intracellular Anchors for Remote Control Over Cellular Mobility. Advanced Materials, 2013, 25, 6945-6950.	11.1	63
63	Influence of anneal atmosphere on ZnO-nanorod photoluminescent and morphological properties with self-powered photodetector performance. Journal of Applied Physics, 2013, 113, .	1.1	53
64	A time resolved microfocus XEOL facility at the Diamond Light Source. Journal of Physics: Conference Series, 2013, 425, 182009.	0.3	7
65	Looking into the structure of Ge nanocrystals through diffraction. Acta Crystallographica Section A: Foundations and Advances, 2013, 69, s431-s431.	0.3	0
66	Investigating the source of deep-level photoluminescence in ZnO nanorods using optically detected x-ray absorption spectroscopy. Journal of Applied Physics, 2013, 114, 153517.	1.1	7
67	Raman excitation spectroscopy of carbon nanotubes: effects of pressure medium and pressure. High Pressure Research, 2012, 32, 67-71.	0.4	5
68	Above Room Temperature Ferromagnetism in Si:Mn and TiO_{2âÎ´}:Co. Journal of Nanoscience and Nanotechnology, 2012, 12, 7540-7544.	0.9	2
69	Charge transfer between carbon nanotubes and sulfuric acid as determined by Raman spectroscopy. Physical Review B, 2012, 85, .	1.1	24
70	Effect of water on resonant Raman spectroscopy of closed singleâ€walled carbon nanotubes. Physica Status Solidi (B): Basic Research, 2011, 248, 2548-2551.	0.7	1
71	Neuron Cells Uptake of Polymeric Microcapsules and Subsequent Intracellular Release. Macromolecular Bioscience, 2011, 11, 848-854.	2.1	42
72	Raman Gâ€mode of singleâ€wall carbon nanotube bundles under pressure. Journal of Raman Spectroscopy, 2011, 42, 1611-1613.	1.2	7

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73	Study of albumin and fibrinogen membranes formed by interfacial crosslinking using microfluidic flow. Biofabrication, 2010, 2, 035002.	3.7	9
74	Carbon Nanotubes on Polymeric Microcapsules: Freeâ€Standing Structures and Pointâ€Wise Laser Openings. Advanced Functional Materials, 2010, 20, 3136-3142.	7.8	66
75	Gâ€mode behaviour of closed ended single wall carbon nanotubes under pressure. Physica Status Solidi (B): Basic Research, 2009, 246, 491-495.	0.7	5
76	Structural and optical properties of porous nanocrystalline Ge. Journal of Applied Physics, 2008, 103, 113518.	1.1	36
77	Large-Scale, Reliable and Robust SERS-Active Nanowire Substrates Prepared Using Porous Alumina Templates. Journal of Nanoscience and Nanotechnology, 2008, 8, 931-935.	0.9	12
78	High-pressure Raman response of single-walled carbon nanotubes: Effect of the excitation laser energy. Physical Review B, 2008, 78, .	1.1	17
79	RamanGband in double-wall carbon nanotubes combiningpdoping and high pressure. Physical Review B, 2008, 78, .	1.1	27
80	Surface texturing of Si, porous Si and TiO2 by laser ablation. Applied Surface Science, 2007, 253, 6575-6579.	3.1	21
81	Ferromagnetism of 3-D transition metals solid solutions in titanium oxides. Journal of Magnetism and Magnetic Materials, 2007, 310, e714-e716.	1.0	1
82	Raman study of nano-crystalline Ge under high pressure. Physica Status Solidi (B): Basic Research, 2007, 244, 1376-1380.	0.7	13
83	Formation of porous silicon at elevated temperatures. Electrochimica Acta, 2006, 51, 2938-2941.	2.6	10
84	Interaction of B50 rat hippocampal cells with stain-etched porous silicon. Biomaterials, 2006, 27, 842-846.	5.7	101
85	Impact of vacuum thermal treatments on the structure and magnetic properties of titanium oxide films doped with Co. Journal of Physics Condensed Matter, 2006, 18, 10999-11005.	0.7	3
86	Anisotropic Nanoclustered Carbon Phases Prepared from Fullerite C60 Under Nonâ€hydrostatic High Pressure. Fullerenes Nanotubes and Carbon Nanostructures, 2005, 12, 235-241.	1.0	0
87	Formation of porous silicon on a non-conductive substrate and its use as a sacrificial layer. Semiconductor Science and Technology, 2005, 20, 1217-1222.	1.0	3
88	Concerning Signaling in in Vitro Neural Arrays Using Porous Silicon. , 2004, , 467-471.		3
89	The rheology of collapsing zeolites amorphized by temperature and pressure. Nature Materials, 2003, 2, 622-629.	13.3	151
90	On the origin of the 2.2â€“2.3eV photoluminescence from chemically etched germanium. Journal of Luminescence, 2003, 101, 275-283.	1.5	39

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91	Structural and elastic anisotropy of carbon phases prepared from fullerite C60. Applied Physics Letters, 2003, 83, 3903-3905.	1.5	13
92	Pressure-Induced Crossover between Diffusive and Displacive Mechanisms of Phase Transitions in Single-CrystallineÎ±â˜'GeO2. Physical Review Letters, 2003, 90, 145503.	2.9	20
93	Distance dependence of mean-square relative displacements in EXAFS. Physical Review B, 2002, 65, .	1.1	14
94	X-ray absorption spectroscopy under high pressures in diamond anvil cells. High Pressure Research, 2001, 21, 315-329.	0.4	20
95	The preparation and characterisation of gallium nitride using the Hi-Prexx facility. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2001, 82, 120-122.	1.7	4
96	High-Pressure High-Temperature Studies of Structural Ordering in GaSb. Physica Status Solidi (B): Basic Research, 2001, 223, 405-409.	0.7	12
97	In situEXAFS, X-ray diffraction and photoluminescence for high-pressure studies. Journal of Synchrotron Radiation, 2000, 7, 257-261.	1.0	18
98	Local structure of bulk amorphous and crystalline(GaSb)1â˜'x(Ge2)x. Physical Review B, 2000, 61, 1907-1911.	1.1	1
99	Hardening of fullerite C60 during temperature-induced polymerization and amorphization under pressure. Applied Physics Letters, 2000, 76, 712-714.	1.5	41
100	The optical and structural properties of InGaN epilayers with very high indium content. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1999, 59, 292-297.	1.7	13
101	Local atomic ordering in bulk amorphous (GaSb)1â˜'xGe2x. Journal of Synchrotron Radiation, 1999, 6, 492-494.	1.0	1
102	Structure of bulk amorphous GaSb: A temperature-dependent EXAFS study. Physical Review B, 1997, 56, 11531-11535.	1.1	22
103	Nonequilibrium Phase Transformations in Diamond and Zincblende Semiconductors under High Pressure. Physica Status Solidi (B): Basic Research, 1996, 198, 481-490.	0.7	29
104	Structural Studies of Bulk Amorphous GaSb under High Pressures. Physica Status Solidi (B): Basic Research, 1996, 198, 503-508.	0.7	12
105	Pressure-induced distortion of the amorphous tetrahedral network ina-GaSb: Direct evidence from EXAFS. Physical Review B, 1996, 54, R14242-R14245.	1.1	13
106	Phase transformations and the nature of the semiconductor-to-metal transition in bulka-GaSb anda-(Ge2)1â˜'x(GaSb)xsemiconductors under high pressure. Physical Review B, 1996, 54, 1808-1818.	1.1	13
107	Nature of Semiconductor-to-Metal Transition and Volume Properties of Bulk Tetrahedral Amorphous GaSb and GaSb-Ge Semiconductors under High Pressure. Physical Review Letters, 1994, 73, 3262-3265.	2.9	33