Sergey Rubanov

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/5837497/publications.pdf

Version: 2024-02-01

112	3,869	117453	128067
papers	citations	34 h-index	60 g-index

114	114	114	5783
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Isotopic enrichment of silicon by high fluence <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msup><mml:mrow /><mml:mn>28</mml:mn></mml:msup><mml:msup><mml:mtext>Si</mml:mtext><mml:mo>â^'</mml:mo></mml:msup></mml:mrow> ion implantation. Physical Review Materials, 2021, 5, .	0.9	3
2	Effect of native defects on thermoelectric properties of copper iodide films. Emergent Materials, 2021, 4, 761-768.	3.2	25
3	Gallium Plasmonic Nanoantennas Unveiling Multiple Kinetics of Hydrogen Sensing, Storage, and Spillover. Advanced Materials, 2021, 33, e2100500.	11.1	18
4	A sandwich-like structural model revealed for quasi-2D perovskite films. Journal of Materials Chemistry C, 2021, 9, 5362-5372.	2.7	14
5	Creation of pure non-crystalline diamond nanostructures via room-temperature ion irradiation and subsequent thermal annealing. Nanoscale Advances, 2021, 3, 4156-4165.	2.2	1
6	Guided Vortex Motion Control in Superconducting Thin Films by Sawtooth Ion Surface Modification. ACS Applied Materials & Interfaces, 2020, 12, 26170-26176.	4.0	4
7	The multi-faceted mechano-bactericidal mechanism of nanostructured surfaces. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 12598-12605.	3.3	119
8	Catalyst-free synthesis of copper oxide composites as solar radiative filters. Nanotechnology, 2020, 31, 504002.	1.3	5
9	Large artificial ferromagnetic dot arrays for the critical current enhancement in superconducting YBa₂Cu₃O$_{7-delta}$ thin films. Superconductor Science and Technology, 2020, 33, 105006.	1.8	2
10	Secondary phase induced electrical conductivity and improvement in thermoelectric power factor of zinc antimonide films. Materials Today Energy, 2019, 13, 249-255.	2.5	32
11	Modification of Pinning in YBa<inline-formula> <tex-math notation="LaTeX">$_2$</tex-math> </inline-formula>Cu<inline-formula> <tex-math notation="LaTeX">$_3$</tex-math> </inline-formula>O<inline-formula> <tex-math notation="LaTeX">$_7$</tex-math> </inline-formula> Thin Films by Substrate Annealing. IEEE Transactions on Applied Superconductivity, 2019, 29, 1-5.	1.1	3
12	Multifold improvement of thermoelectric power factor by tuning bismuth and antimony in nanostructured n-type bismuth antimony telluride thin films. Materials and Design, 2019, 163, 107549.	3.3	61
13	Decorative black coatings on titanium surfaces based on hard bi-layered carbon coatings synthesized by carbon implantation. Surface and Coatings Technology, 2019, 358, 386-393.	2.2	14
14	The effect of different Fe concentrations on the structural and magnetic properties of near surface superparamagnetic Ni1â^'Fe nanoparticles in SiO2 made by dual low energy ion implantation. Journal of Magnetism and Magnetic Materials, 2019, 473, 125-130.	1.0	13
15	Spin-dependent tunnelling in magnetite nanoparticles. Journal of Magnetism and Magnetic Materials, 2018, 460, 229-233.	1.0	97
16	Structural and magnetic properties of near surface superparamagnetic Ni1-Fe nanoparticles in SiO2 formed by low energy dual ion implantation with different fluences. Applied Surface Science, 2018, 449, 399-404.	3.1	5
17	Growth of Biaxially-Textured La2Zr2O7 and Zr-doped CeO2 on Cold-Rolled Niâ€W Substrate by CSD. IEEE Transactions on Applied Superconductivity, 2018, 28, 1-5.	1.1	3
18	Development and characterization of biaxially-textured lanthanum zirconate film grown on cold-rolled Ni-W substrate by chemical solution deposition. Journal of Alloys and Compounds, 2018, 735, 454-463.	2.8	7

#	Article	IF	Citations
19	Enhancing the critical current of YBa2Cu3O7 thin films by substrate nanoengineering. Journal of Applied Physics, 2018, 124, 233905.	1.1	5
20	Nanogeochemistry of hydrothermal magnetite. Contributions To Mineralogy and Petrology, 2018, 173, 1.	1.2	63
21	High Aspect Ratio Nanostructures Kill Bacteria via Storage and Release of Mechanical Energy. ACS Nano, 2018, 12, 6657-6667.	7.3	120
22	Structure and Chemical Organization in Damselfly Calopteryx haemorrhoidalis Wings: A Spatially Resolved FTIR and XRF Analysis with Synchrotron Radiation. Scientific Reports, 2018, 8, 8413.	1.6	11
23	A Structural Optimization of Ferrite/YBCO Bilayers. IEEE Transactions on Applied Superconductivity, 2017, 27, 1-5.	1.1	2
24	Ranges of 10â€“350 keV H and H 2 ions in (1 1 1) diamond. Nuclear Instruments & Methods in Physics Research B, 2017, 406, 634-637.	0.6	2
25	Multiferroic nanocrystalline BiFeO<SUB align="right">3 and BiCrO<SUB align="right">3 thin films prepared by ion beam sputtering. International Journal of Nanotechnology, 2017, 14, 56.	0.1	9
26	Comment on â€œBactericidal Effects of Natural Nanotopography of Dragonfly Wing on Escherichia coliâ€• ACS Applied Materials & Interfaces, 2017, 9, 29387-29393.	4.0	78
27	Nanocrystalline multiferroic BiFeO3 thin films made by room temperature sputtering and thermal annealing, and formation of an iron oxide-induced exchange bias. Journal of Alloys and Compounds, 2017, 695, 3061-3068.	2.8	30
28	High spin-dependent tunneling magnetoresistance in magnetite powders made by arc-discharge. Journal of Applied Physics, 2016, 120, .	1.1	78
29	Ni1â^'xFex nanoparticles made by low energy dual ion implantation into SiO2. Materials Research Express, 2016, 3, 126102.	0.8	4
30	Formation of magnetic nanoparticles by low energy dual implantation of Ni and Fe into SiO2. Journal of Alloys and Compounds, 2016, 667, 255-261.	2.8	82
31	Structural investigation of cooperite (PtS) crystals. Crystallography Reports, 2016, 61, 193-202.	0.1	17
32	Thermally stable coexistence of liquid and solid phases in gallium nanoparticles. Nature Materials, 2016, 15, 995-1002.	13.3	124
33	Microstructure and dynamics of vacancy-induced nanofilamentary switching network in donor doped SrTiO_{3â^'x}memristors. Nanotechnology, 2016, 27, 505210.	1.3	39
34	Fabrication of graphitic layers in diamond using FIB implantation and high pressure high temperature annealing. Diamond and Related Materials, 2016, 63, 143-147.	1.8	15
35	Effects of high-power laser irradiation on sub-superficial graphitic layers in single-crystal diamond. Acta Materialia, 2016, 103, 665-671.	3.8	15
36	High-quality single-crystal diamond-graphite-diamond membranes and devices. International Journal of Nanotechnology, 2015, 12, 226.	0.1	6

#	Article	IF	Citations
37	Microstructural, electrical and magnetic properties of erbium doped zinc oxide single crystals. Electronic Materials Letters, 2015, 11, 998-1002.	1.0	30
38	Synthesis and Compositional Analysis of Permalloy Powder Prepared by Arc-Discharge. Journal of Nanoscience and Nanotechnology, 2015, 15, 9612-9616.	0.9	9
39	Hypervelocity dust impact craters on photovoltaic devices imaged by ion beam induced charge. Nuclear Instruments & Methods in Physics Research B, 2015, 348, 251-254.	0.6	0
40	Structural transformation of implanted diamond layers during high temperature annealing. Nuclear Instruments & Methods in Physics Research B, 2015, 365, 50-54.	0.6	15
41	Low temperature processing of flexible planar perovskite solar cells with efficiency over 10%. Journal of Power Sources, 2015, 278, 325-331.	4.0	89
42	Solid phase epitaxial regrowth of germanium containing nanoporous structures formed by ion implantation. , 2014, , .		1
43	Enhancing Properties of Highâ€Temperature Superconducting Stepâ€Edge Josephson Junctions by Nanoâ€Multilayers with a Small Mismatch. Advanced Materials Interfaces, 2014, 1, 1300112.	1.9	5
44	Investigations of near infrared reflective behaviour of TiO2 nanopowders synthesized by arc discharge. Optical Materials, 2014, 36, 1260-1265.	1.7	42
45	Gas-assisted preparation of lead iodide perovskite films consisting of a monolayer of single crystalline grains for high efficiency planar solar cells. Nano Energy, 2014, 10, 10-18.	8.2	504
46	Demonstrating the Capability of the High-Performance Plasmonic Galliumâ€“Graphene Couple. ACS Nano, 2014, 8, 3031-3041.	7.3	48
47	Transformation of YSZ under high fluence argon ion implantation. Nuclear Instruments & Methods in Physics Research B, 2014, 326, 283-288.	0.6	9
48	Effects of annealing on the structural and optical properties of zinc sulfide thin films deposited by ion beam sputtering. Materials Science in Semiconductor Processing, 2014, 26, 561-566.	1.9	69
49	Synthesis and structural, magnetic and magnetotransport properties of permalloy powders containing nanoparticles prepared by arc discharge. Journal of Alloys and Compounds, 2014, 608, 153-157.	2.8	18
50	Transport behaviour of boron deltaâ€doped diamond. Physica Status Solidi (A) Applications and Materials Science, 2013, 210, 2028-2034.	0.8	12
51	Large, Controllable Spikes of Magnetoresistance in La_{2/3}Ca_{1/3}MnO₃/SrTiO₃ Superlattices. ACS Nano, 2013, 7, 286-293.	7.3	19
52	Controlled deterministic implantation by nanostencil lithography at the limit of ion-aperture straggling. Nanotechnology, 2013, 24, 145304.	1.3	11
53	Correlation between microstructural and magnetic properties of Tb implanted ZnO. AIP Conference Proceedings, 2013, , .	0.3	7
54	Direct measurement and modelling of internal strains in ion-implanted diamond. Journal of Physics Condensed Matter, 2013, 25, 385403.	0.7	22

#	Article	IF	Citations
55	Fabrication and electrical characterization of three-dimensional graphitic microchannels in single crystal diamond. New Journal of Physics, 2012, 14, 053011.	1.2	47
56	Plasma-Enabled Growth of Single-Crystalline SiC/AlSiC Coreâ€“Shell Nanowires on Porous Alumina Templates. Crystal Growth and Design, 2012, 12, 2917-2922.	1.4	45
57	Fabrication of ultra-thin diamond films using hydrogen implantation and Lift-off technique. AIP Conference Proceedings, 2012, , .	0.3	10
58	Layer-by-Layer Assembly of Sintered CdSe_xTe_{1â€“x} Nanocrystal Solar Cells. ACS Nano, 2012, 6, 5995-6004.	7.3	130
59	Structural and magnetic properties of low-energy Gd implanted ZnO single crystals. Nuclear Instruments & Methods in Physics Research B, 2012, 272, 100-103.	0.6	21
60	Structural and compositional complexity of nitrogen implantation in silicon carbide. Nuclear Instruments & Methods in Physics Research B, 2012, 272, 462-465.	0.6	3
61	Mechanism for the Amorphisation of Diamond. Advanced Materials, 2012, 24, 2024-2029.	11.1	74
62	Effect of annealing on the structural, electrical and magnetic properties of Gd-implanted ZnO thin films. Journal of Materials Science, 2012, 47, 1119-1126.	1.7	69
63	Ion implantation in diamond using 30keV Ga+ focused ion beam. Diamond and Related Materials, 2011, 20, 1160-1164.	1.8	35
64	Characterization of nanoscale features in tapered fractal and photonic crystal fibers. Optics Express, 2011, 19, 1860.	1.7	9
65	The Study of the FIB Induced Damage in Diamond. Microscopy and Microanalysis, 2011, 17, 700-701.	0.2	4
66	Atom probe study on the bulk nanocomposite SmCo/Fe permanent magnet produced by ball-milling and warm compaction. Journal of Magnetism and Magnetic Materials, 2011, 323, 2855-2858.	1.0	18
67	Fluorination of the diamond surface by photoinduced dissociation ofC60F48. Physical Review B, 2011, 84, .	1.1	15
68	Improved diamond surfaces following lift-off and plasma treatments as observed by x-ray absorption spectroscopy. Applied Physics Letters, 2011, 98, .	1.5	12
69	Surface damage on diamond membranes fabricated by ion implantation and lift-off. Applied Physics Letters, 2011, 98, .	1.5	20
70	Towards all-diamond optical devices. , 2010, , .		0
71	Microstructure evolution in carbon-ion implanted sapphire. Journal of Applied Physics, 2010, 107, 023508.	1.1	4
72	Reply to comment on â€˜Superconducting transition in Nb nanowires fabricated using focused-ion beamâ€™. Nanotechnology, 2010, 21, 168002.	1.3	2

#	Article	IF	Citations
73	Size dependence of the dielectric function of silicon-supported plasmonic gold nanoparticles. Physical Review B, 2010, 82, .	1.1	38
74	Pinning analyses on epitaxial YBa2Cu3O7â˜Î´ films with BaZrO3 inclusions. Journal of Applied Physics, 2010, 108, .	1.1	38
75	Advanced germanium devices: The development of materials and processing. , 2010, , .		0
76	Electrostatically defined few-electron double quantum dot in silicon. Applied Physics Letters, 2009, 94, .	1.5	54
77	Temperature enhancement of secondary electron emission from hydrogenated diamond films. Journal of Applied Physics, 2009, 106, .	1.1	9
78	Near coalescent submicron polycrystalline diamond films deposited on silicon: Hydrogen bonding and thermal enhanced carbide formation. Journal of Applied Physics, 2009, 106, 103503.	1.1	8
79	Extremely high aspect ratio alumina transmission nanomasks: their fabrication and characterization using electron microscopy. Nanotechnology, 2009, 20, 065706.	1.3	9
80	Covalently Bound Biomimetic Layers on Plasma Polymers with Graded Metallic Interfaces for in vivo Implants. Plasma Processes and Polymers, 2009, 6, 658-666.	1.6	36
81	Superconducting transition in Nb nanowires fabricated using focused ion beam. Nanotechnology, 2009, 20, 465302.	1.3	24
82	The effect of temperature on the secondary electron emission yield from single crystal and polycrystalline diamond surfaces. Applied Physics Letters, 2009, 95, 262109.	1.5	8
83	Transport Property Improvement by Means of BZO Inclusions in PLD Grown YBCO Thin Films. IEEE Transactions on Applied Superconductivity, 2009, 19, 3399-3402.	1.1	19
84	Damage Layers in Si vs. Ion Dose during 30 keV FIB Milling. Microscopy and Microanalysis, 2009, 15, 358-359.	0.2	6
85	Fabrication of Ultrathin Singleâ€Crystal Diamond Membranes. Advanced Materials, 2008, 20, 4793-4798.	11.1	129
86	Polarisation and wavelength selective transmission through nanohole structures with multiple grating geometry. Optics Express, 2008, 16, 5832.	1.7	13
87	Nanostructures in tapered air-silica fibres. , 2008, , .		1
88	Scanning Transmission Ion Microscopy of Nanoscale Apertures. Journal of the Korean Physical Society, 2008, 53, 3704-3708.	0.3	4
89	Multilayering and Ag-Doping for Properties and Performance Enhancement in ${hbox{YBa}}_{2}{hbox{Cu}}_{3}{hbox{O}}_{7}$ Films. IEEE Transactions on Applied Superconductivity, 2007, 17, 3585-3588.	1.1	38
90	Ion beam lithograpy using a nano-aperture. Nuclear Instruments & Methods in Physics Research B, 2007, 260, 426-430.	0.6	9

#	Article	IF	Citations
91	Multilayered deposition and its role in the enhancement of YBa2Cu3O7 film performance. Physica C: Superconductivity and Its Applications, 2007, 460-462, 1379-1380.	0.6	4
92	Work function of hydrogen-terminated diamond surfaces under ion impact. Surface Science, 2007, 601, 5732-5735.	0.8	9
93	Creation and Characterization of Buried Microstructures in Diamond by Ion Implantation. , 2006, , .		0
94	Characterization of three-dimensional microstructures in single-crystal diamond. Diamond and Related Materials, 2006, 15, 1614-1621.	1.8	92
95	Coherent population trapping in diamond N-V centers at zero magnetic field. Optics Express, 2006, 14, 7986.	1.7	94
96	Toward quantum information processing using EIT in diamond. , 2006, , .		0
97	Dielectric substrate self-bias and plasma confinement in two-dimensional scanning radio frequency plasma-enhanced chemical vapour deposition. Vacuum, 2006, 81, 441-445.	1.6	0
98	Characterization of a large area scanning PECVD deposition system with small size RF electrodes. Thin Solid Films, 2006, 515, 307-312.	0.8	1
99	Critical components for diamond-based quantum coherent devices. Journal of Physics Condensed Matter, 2006, 18, S825-S842.	0.7	64
100	Spatial extent of band bending in diamond due to ion impact as measured by secondary electron emission: Experiment and theory. Physical Review B, 2006, 73, .	1.1	8
101	Fabrication of single atom nanoscale devices by ion implantation. , 2006, , .		0
102	Coherent population trapping in diamond N-V centers at zero magnetic field. , 2006, , .		0
103	Damage in IIIâ€“V Compounds during Focused Ion Beam Milling. Microscopy and Microanalysis, 2005, 11, 446-455.	0.2	50
104	Ion-Beam-Assisted Lift-Off Technique for Three-Dimensional Micromachining of Freestanding Single-Crystal Diamond. Advanced Materials, 2005, 17, 2427-2430.	11.1	166
105	Stabilization of amorphous GaN by oxygen. Journal of Applied Physics, 2005, 98, 063514.	1.1	23
106	Exposure and characterization of nano-structured hole arrays in tapered photonic crystal fibers using a combined FIB/SEM technique. Optics Express, 2005, 13, 9023.	1.7	34
107	FIB-induced damage in silicon. Journal of Microscopy, 2004, 214, 213-221.	0.8	213
108	The application of FIB milling for specimen preparation from crystalline germanium. Micron, 2004, 35, 549-556.	1.1	27

#	Article	IF	Citations
109	The effect of the gold sputter-coated films in minimising damage in FIB-produced TEM specimens. Materials Letters, 2003, 57, 2238-2241.	1.3	38
110	Surface Damage In Silicon After 30 Kev Ga Fib Fabrication. Microscopy and Microanalysis, 2003, 9, 884-885.	0.2	5
111	Investigation of the structure of damage layers in TEM samples prepared using a focused ion beam. , 2001, 20, 1181-1183.		40
112	Brownian Treeâ€Shaped Dendrites in Quasiâ€2D Perovskite Films and Their Impact on Photovoltaic Performance. Advanced Materials Interfaces, 0, , 2102231.	1.9	4