

Alexander S Samardak

List of Publications by Year in descending order

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102
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567144

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103
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103
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103
times ranked

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#	ARTICLE	IF	CITATIONS
1	XMCD and <i>ab initio</i> study of interface-engineered ultrathin Ru/Co/W/Ru films with perpendicular magnetic anisotropy and strong Dzyaloshinskii–Moriya interaction. <i>Physical Chemistry Chemical Physics</i> , 2022, 24, 8225-8232.	1.3	3
2	Role of an in-plane ferromagnet in a T-type structure for field-free magnetization switching. <i>Applied Physics Letters</i> , 2022, 120, .	1.5	5
3	Topologically Nontrivial Spin Textures in Thin Magnetic Films. <i>Physics of Metals and Metallography</i> , 2022, 123, 238-260.	0.3	9
4	Crystal Structure and Magnetic Properties of Epitaxial Cobalt Thin Films and Single-Crystal Nanostrips Grown on a Stepped Surface Si(111)-5.55Å–5.55-Cu with a Cu(111) Buffer Layer. <i>Journal of Superconductivity and Novel Magnetism</i> , 2022, 35, 2099-2106.	0.8	0
5	Magnetic properties and the interfacial Dzyaloshinskii-Moriya interaction in exchange biased Pt/Co/NixOy films. <i>Applied Surface Science</i> , 2021, 543, 148720.	3.1	14
6	Gradual magnetization switching via domain nucleation driven by spin–orbit torque. <i>Applied Physics Letters</i> , 2021, 118, 032407.	1.5	11
7	Ruderman–Kittel–Kasuya–Yosida-type interfacial Dzyaloshinskii–Moriya interaction in heavy metal/ferromagnet heterostructures. <i>Nature Communications</i> , 2021, 12, 3280.	5.8	5
8	Current-Induced Manipulation of the Exchange Bias in a Pt/Co/NiO Structure. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 42258-42265.	4.0	7
9	Analyzer-free, intensity-based, wide-field magneto-optical microscopy. <i>Applied Physics Reviews</i> , 2021, 8, .	5.5	7
10	Microstructure, composition and magnetic properties of Nd-(Fe1-xCox)-B oxide magnetic particles synthesized by Pechini-type chemical method. <i>Advanced Powder Technology</i> , 2021, 32, 3964-3979.	2.0	3
11	Inhomogeneous magnetic properties characterized by simultaneous electrical and optical detection of spin-torque ferromagnetic resonance. <i>Applied Physics Letters</i> , 2021, 119, 192409.	1.5	1
12	FORC-Diagram Analysis for a Step-like Magnetization Reversal in Nanopatterned Stripe Array. <i>Materials</i> , 2021, 14, 7523.	1.3	5
13	Crystal texture-dependent magnetic and magnetotransport properties of half-metallic Fe3O4 films grown on oxidized Si substrates by reactive deposition. <i>Journal of Alloys and Compounds</i> , 2020, 815, 152398.	2.8	12
14	Crystal structure and magnetic properties of wafer-size Co nanostrip arrays self-organized on a step-bunched surface of Si(111)-5.55Å–5.55-Cu/(Cu, Cu2Si, W-O) buffers. <i>Materials Characterization</i> , 2020, 199, 110077.	1.9	1
15	Synthesis and Sorption Characteristics of Magnetic Materials Based on Cobalt Oxides and Their Reduced Forms. <i>Russian Journal of Inorganic Chemistry</i> , 2020, 65, 820-828.	0.3	9
16	Enhancement of perpendicular magnetic anisotropy and Dzyaloshinskii–Moriya interaction in thin ferromagnetic films by atomic-scale modulation of interfaces. <i>NPG Asia Materials</i> , 2020, 12, .	3.8	28
17	Macroporous Magnetic Iron Oxides and Their Composites for Liquid-Phase Catalytic Oxidation. <i>Russian Journal of Inorganic Chemistry</i> , 2020, 65, 1642-1653.	0.3	5
18	Magnetic Direct-Write Skyrmion Nanolithography. <i>ACS Nano</i> , 2020, 14, 14960-14970.	7.3	17

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19	Photovoltage detection of spin excitation of a ferromagnetic stripe and disk at low temperature. Japanese Journal of Applied Physics, 2020, 59, SEED02.	0.8	1
20	Composition-driven crystal structure transformation and magnetic properties of electrodeposited Co-W alloy nanowires. Journal of Alloys and Compounds, 2020, 843, 155902.	2.8	13
21	Chirality-Reversible Multistate Switching via Two Orthogonal Spin-Orbit Torques in a Perpendicularly Magnetized System. Physical Review Applied, 2020, 13, .	1.5	6
22	Engineering of optical, magneto-optical and magnetic properties of nickel-based one-dimensional magnetoplasmonic crystals. Japanese Journal of Applied Physics, 2020, 59, SEEA08.	0.8	5
23	Advanced Method for the Reliable Estimation of Spin-Orbit-Torque Efficiency in Low-Coercivity Ferromagnetic Multilayers. Physical Review Applied, 2019, 11, .	1.5	7
24	Morphology- and magnetism-controlled electrodeposition of Ni nanostructures on TiO ₂ nanotubes for hybrid Ni/TiO ₂ functional applications. Ceramics International, 2019, 45, 11258-11269.	2.3	13
25	Magnetoresistive Sensor Development Roadmap (Non-Recording Applications). IEEE Transactions on Magnetics, 2019, 55, 1-30.	1.2	138
26	Magnetic properties and geometry-driven magnetic anisotropy of magnetoplasmonic crystals. Journal of Magnetism and Magnetic Materials, 2019, 480, 150-153.	1.0	10
27	Mesophase micelle-assisted electrodeposition and magnetisation behavior of meso-porous nickel films for efficient electrochemical energy and magnetic device applications. Applied Surface Science, 2019, 471, 776-785.	3.1	4
28	Nanoscale control of perpendicular magnetic anisotropy, coercive force and domain structure in ultrathin Ru/Co/W/Ru films. Journal of Magnetism and Magnetic Materials, 2018, 454, 78-84.	1.0	12
29	Variation of magnetic anisotropy and temperature-dependent FORC probing of compositionally tuned Co-Ni alloy nanowires. Journal of Alloys and Compounds, 2018, 732, 683-693.	2.8	36
30	Hybrid magnetic anisotropy [Co/Ni]/Cu/[Co/Pt] spin-valves. Journal of Magnetism and Magnetic Materials, 2018, 449, 271-277.	1.0	4
31	Induced magnetic anisotropies dependent micromagnetic structure of epitaxial Co nanostrip arrays. Journal of Magnetism and Magnetic Materials, 2018, 459, 118-124.	1.0	6
32	Interface roughness driven magnetic anisotropy and Dzyaloshinskii-Moriya interaction in thin films with broken structural inversion symmetry. , 2018, , .		0
33	Composite topological structure of domain walls in synthetic antiferromagnets. Scientific Reports, 2018, 8, 15794.	1.6	15
34	Skyrmionium - high velocity without the skyrmion Hall effect. Scientific Reports, 2018, 8, 16966.	1.6	75
35	Magnetization reversal of ferromagnetic nanosprings affected by helical shape. Nanoscale, 2018, 10, 20405-20413.	2.8	17
36	Ferromagnetic resonance study of sputtered Pt/Co/Pt multilayers. Applied Surface Science, 2018, 461, 202-205.	3.1	6

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37	Enhanced interfacial Dzyaloshinskii-Moriya interaction and isolated skyrmions in the inversion-symmetry-broken Ru/Co/W/Ru films. Applied Physics Letters, 2018, 112, .	1.5	36
38	Role of the Heavy Metal's Crystal Phase in Oscillations of Perpendicular Magnetic Anisotropy and the Interfacial Dzyaloshinskii-Moriya Interaction in W Co $_{1-x}$ Fe $_x$ Films. Physical Review Applied, 2018, 9, .	1.5	29
39	Spontaneous nucleation and topological stabilization of skyrmions in magnetic nanodisks with the interfacial Dzyaloshinskii-Moriya interaction. Journal of Magnetism and Magnetic Materials, 2017, 429, 221-226.	1.0	13
40	Origin of perpendicular magnetic anisotropy in epitaxial PdCo trilayers. Physical Review B, 2017, 95, .	1.1	24
41	Structural Defect-Induced Bandgap Narrowing in Dopant-Free Anodic TiO ₂ Nanotubes. ChemElectroChem, 2017, 4, 1227-1235.	1.7	15
42	Self-organization and FORC-based magnetic characterization of ultra-high aspect ratio epitaxial Co nanostrips produced by oblique deposition on an ordered step-bunched silicon surface. Nanotechnology, 2017, 28, 095708.	1.3	13
43	Vortex dynamics and frequency splitting in vertically coupled nanomagnets. Scientific Reports, 2017, 7, 1127.	1.6	17
44	Effective magnetic anisotropy manipulation by oblique deposition in magnetostatically coupled Co nanostrip arrays. Journal of Magnetism and Magnetic Materials, 2017, 422, 452-457.	1.0	11
45	Enhancement of perpendicular magnetic anisotropy and coercivity in ultrathin Ru/Co/Ru films through the buffer layer engineering. Journal Physics D: Applied Physics, 2016, 49, 425302.	1.3	14
46	Size-dependent changeover in magnetization reversal mode of self-assembled one-dimensional chains of spherical Fe ₃ O ₄ nanoparticles. Japanese Journal of Applied Physics, 2016, 55, 100303.	0.8	5
47	Fabrication of high-resolution nanostructures of complex geometry by the single-spot nanolithography method. Beilstein Journal of Nanotechnology, 2015, 6, 976-986.	1.5	5
48	Manipulation of magnetic vortex parameters in disk-on-disk nanostructures with various geometry. Beilstein Journal of Nanotechnology, 2015, 6, 697-703.	1.5	3
49	Influence of the properties of soft collective spin wave modes on the magnetization reversal in finite arrays of dipolarly coupled magnetic dots. Journal of Magnetism and Magnetic Materials, 2015, 384, 166-174.	1.0	10
50	Micromagnetic Structure of Co Stripe Arrays With Tuned Anisotropy. IEEE Transactions on Magnetics, 2015, 51, 1-4.	1.2	3
51	Vortex manipulation and chirality control in asymmetric bilayer nanomagnets. Journal of Applied Physics, 2015, 117, 17A317.	1.1	5
52	Composition-dependent reorientation of magnetic anisotropy in electrodeposited CoNi nanowire arrays. , 2015, , .		0
53	Experimental evidence of skyrmion-like configurations in bilayer nanodisks with perpendicular magnetic anisotropy. Journal of Applied Physics, 2015, 117, 17B529.	1.1	6
54	Electrodeposited Co _{93.2} P _{6.8} nanowire arrays with core-shell microstructure and perpendicular magnetic anisotropy. Journal of Applied Physics, 2015, 117, 17E715.	1.1	5

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55	Magnetic properties of electrodeposited nickel-MWCNT nanocomposite films. , 2015, , .		0
56	Micromagnetic structure of Co stripe arrays with tuned anisotropy. , 2015, , .		0
57	Magnetic Properties of Electrodeposited Nickel-Multiwall Carbon Nanotube Composite Films. IEEE Transactions on Magnetics, 2015, 51, .	1.2	11
58	Conversion of magnetic anisotropy in electrodeposited Co-Ni alloy nanowires. Journal of Magnetism and Magnetic Materials, 2015, 383, 94-99.	1.0	21
59	High-frequency switching of magnetic bistability in an asymmetric double disk nanostructure. Applied Physics Letters, 2014, 104, .	1.5	6
60	Dependence of the magnetic properties of nanocrystalline nickel films on grain size and surface morphology. Nanotechnologies in Russia, 2014, 9, 723-727.	0.7	6
61	An investigation on the effect of surface morphology and crystalline texture on corrosion behavior, structural and magnetic properties of electrodeposited nanocrystalline nickel films. Applied Surface Science, 2014, 292, 795-805.	3.1	83
62	Peculiarities in the measurements of magnetic anisotropy in thin films and nanostructures by the magneto-optical Kerr effect. Nanotechnologies in Russia, 2014, 9, 457-460.	0.7	0
63	Magnetic vortex state and multi-domain pattern in electrodeposited hemispherical nanogranular nickel films. Journal of Magnetism and Magnetic Materials, 2014, 371, 149-156.	1.0	7
64	Crystal Structure and Coercivity of Electrodeposited Nickel Films. Solid State Phenomena, 2014, 215, 139-143.	0.3	2
65	Effect of the number of nanodisks in two-dimensional arrays on magnetization reversal processes. Physics of the Solid State, 2013, 55, 768-772.	0.2	0
66	Refinement of electrodeposition mechanism for fabrication of thin nickel films on n-type silicon (111). Journal of Electroanalytical Chemistry, 2013, 690, 136-143.	1.9	29
67	An influence of mechanical deformations on crystal structure and spin configuration in magnetic nanowires. Journal of Applied Physics, 2013, 113, 17A334.	1.1	2
68	Magneto-resistive properties of the "small disk on a big disk" nanostructure. Journal of Applied Physics, 2013, 113, 17B527.	1.1	2
69	An Influence of Boundary Effects and Spatial Symmetry on Magnetization Reversal of Nanodisk Arrays. IEEE Transactions on Magnetics, 2012, 48, 3651-3653.	1.2	7
70	3-D Architectural Approach for Manipulation of the Micromagnetic Configuration in Nanodisks. IEEE Transactions on Magnetics, 2012, 48, 4406-4408.	1.2	10
71	Granulated media for nanoelectronic applications. Journal of Physics: Conference Series, 2012, 345, 012010.	0.3	3
72	High-density nickel nanowire arrays for data storage applications. Journal of Physics: Conference Series, 2012, 345, 012011.	0.3	33

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73	Magnetic Properties of Nickel Nanowire Arrays Patterned by Template Electrodeposition. Solid State Phenomena, 2012, 190, 522-525.	0.3	4
74	MTJ spin-valves based on thin films and nanowires. Physics Procedia, 2012, 23, 123-127.	1.2	1
75	AC Electrodeposition of Amorphous CoP Nanowires Embedded in an Alumina Template. Journal of Spintronics and Magnetic Nanomaterials, 2012, 1, 23-27.	0.2	3
76	Magnetic anisotropy and domain structure in spin-valves based on MTJ. Journal of Physics: Conference Series, 2011, 266, 012021.	0.3	1
77	Spiking computation and stochastic amplification in a neuron-like semiconductor microstructure. Journal of Applied Physics, 2011, 109, .	1.1	13
78	Competition between Vortex and α -like States in Laterally Confined Magnetic Trilayers. Physics Procedia, 2011, 22, 157-162.	1.2	1
79	Geometry Dependent Magnetic Properties of Ni Nanowires Embedded in Self-Assembled Arrays. Physics Procedia, 2011, 22, 549-556.	1.2	8
80	The magnetic structure of nanodisks with a crown. Bulletin of the Russian Academy of Sciences: Physics, 2011, 75, 193-194.	0.1	2
81	Linear and nonlinear collective modes in magnetic microstructures formed by coupled disks. Physical Review B, 2011, 83, .	1.1	12
82	Noise induced amplification of sub-threshold pulses in multi-thread excitable semiconductor α -neurons TM . Physica E: Low-Dimensional Systems and Nanostructures, 2010, 42, 2853-2856.	1.3	0
83	Regular pulsing induced by noise in a monolithic semiconductor neuron. , 2010, , .		0
84	Magnetization Reversal and Domain Structure of Magnetic Tunnel Junctions. Solid State Phenomena, 2010, 168-169, 253-256.	0.3	0
85	Noise-Controlled Signal Transmission in a Multithread Semiconductor Neuron. Physical Review Letters, 2009, 102, 226802.	2.9	38
86	Coincidence detection and spike regeneration in artificial neurons. Physica Status Solidi (A) Applications and Materials Science, 2008, 205, 2651-2654.	0.8	0
87	High harmonic generation from spin resonance fluorescence. Physica E: Low-Dimensional Systems and Nanostructures, 2008, 40, 1223-1225.	1.3	1
88	Analogue summation of electrical spike trains in semiconductor nerve fibres. Physica E: Low-Dimensional Systems and Nanostructures, 2008, 40, 2214-2216.	1.3	0
89	An analogue sum and threshold neuron based on the quantum tunnelling amplification of electrical pulses. New Journal of Physics, 2008, 10, 083010.	1.2	7
90	Propagation and spatiotemporal summation of electrical pulses in semiconductor nerve fibers. Applied Physics Letters, 2007, 91, 073502.	1.5	4

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91	Behavior of magnetic and magnetoresistive properties of nanocrystalline Co/Cu/Co films during step-by-step annealing. <i>Physics of Metals and Metallography</i> , 2006, 101, 11-16.	0.3	5
92	Magnetic anisotropy of Co/Cu/Co films with indirect exchange coupling. <i>Physics of the Solid State</i> , 2004, 46, 1084-1087.	0.2	5
93	Effect of the crystal structure and interlayer exchange coupling on the coercive force in Co/Cu/Co films. <i>Physics of the Solid State</i> , 2003, 45, 907-910.	0.2	12
94	The Remagnetization Process Feature of Trilayer Nanodisks. <i>Solid State Phenomena</i> , 0, 168-169, 249-252.	0.3	0
95	The Improved Magneto-Optical Kerr Effect Method of Magnetic Anisotropy Measurements in Thin Films and Nanostructures. <i>Solid State Phenomena</i> , 0, 215, 445-447.	0.3	0
96	Temperature Dependence of Magnetic Saturation in Electrodeposited Nanocrystalline Nickel Films. <i>Solid State Phenomena</i> , 0, 215, 292-297.	0.3	0
97	Photovoltage Spectroscopy of Dipolar Spin Waves in Dy Micromagnets. <i>Solid State Phenomena</i> , 0, 215, 400-406.	0.3	2
98	Spot Electron-Beam Lithography as a Novel Method of High Resolution Pattern Nanofabrication. <i>Solid State Phenomena</i> , 0, 215, 459-461.	0.3	0
99	Magnetic Bistability of the "Small Disk on Big Disk" Structure. <i>Solid State Phenomena</i> , 0, 215, 499-502.	0.3	0
100	Magnetic Behavior of Single Ni Nanowires and its Arrays Embedded in Highly Ordered Nanoporous Alumina Templates. <i>Solid State Phenomena</i> , 0, 215, 298-305.	0.3	1
101	Investigation of the Co Films Growth on Si (111) Surface with Copper Silicide Nanostructures. <i>Solid State Phenomena</i> , 0, 215, 204-207.	0.3	0
102	Preparation and Structure of Oxide and Reduced Nd(Fe _{1-x} Co _x)B Nanoparticles. <i>Solid State Phenomena</i> , 0, 312, 288-294.	0.3	0