

Elena Popova

List of Publications by Year in descending order

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71
papers

1,661
citations

279798

23
h-index

315739

38
g-index

72
all docs

72
docs citations

72
times ranked

1994
citing authors

#	ARTICLE	IF	CITATIONS
1	Generation of spin waves via spin-phonon interaction in a buried dielectric thin film. Physical Review B, 2021, 103, .	3.2	8
2	Ultrafast control of lattice strain via magnetic circular dichroism. Physical Review B, 2021, 103, .	3.2	3
3	Enhanced magneto-optical Faraday effect in two-dimensional magnetoplasmonic structures caused by orthogonal plasmonic oscillations. Physical Review B, 2020, 102, .	3.2	13
4	Ca ₃ (VO ₄) ₂ Nanowires on Metallic CaVO ₃ Films as Nanocapacitors. ACS Applied Nano Materials, 2020, 3, 6684-6692.	5.0	2
5	Measurement of transient strain induced by two-photon excitation. Physical Review Research, 2020, 2, .	3.6	11
6	Evolution of structural and magnetic properties of multifunctional bismuth iron garnets upon Ca and Y doping. Physical Review Materials, 2020, 4, .	2.4	1
7	Femtosecond Laser-Excitation-Driven High Frequency Standing Spin Waves in Nanoscale Dielectric Thin Films of Iron Garnets. Physical Review Letters, 2019, 123, 027202.	7.8	24
8	Damping of Standing Spin Waves in Bismuth-Substituted Yttrium Iron Garnet as Seen via the Time-Resolved Magneto-Optical Kerr Effect. Physical Review Applied, 2019, 12, .	3.8	16
9	Atmosphere-Induced Reversible Resistivity Changes in Ca/Y-Doped Bismuth Iron Garnet Thin Films. Advanced Functional Materials, 2019, 29, 1904958.	14.9	8
10	Bismuth iron garnet: <i>Ab initio</i> study of electronic properties. Physical Review B, 2019, 100, .	3.2	10
11	Different magneto-optical response of magnetic sublattices as a function of temperature in ferrimagnetic bismuth iron garnet films. Physical Review B, 2019, 100, .	3.2	14
12	Faraday rotation in iron garnet films beyond elemental substitutions. Optica, 2019, 6, 642.	9.3	43
13	Picosecond acoustic-excitation-driven ultrafast magnetization dynamics in dielectric Bi-substituted yttrium iron garnet. Physical Review B, 2018, 98, .	3.2	34
14	Bismuth iron garnet Bi ₃ Fe ₅ O ₁₂ : A room temperature magnetoelectric material. Applied Physics Letters, 2017, 110, .	3.3	33
15	Interplay between epitaxial strain and low dimensionality effects in a ferrimagnetic oxide. Journal of Applied Physics, 2017, 121, .	2.5	17
16	Interplay between epitaxial strain and low dimensionality effects in a ferrimagnetic oxide. , 2017, , .		0
17	Bismuth iron garnet Bi ₃ Fe ₅ O ₁₂ : A room temperature magnetoelectric material. , 2017, , .		0
18	Spectrally resolved optical probing of laser induced magnetization dynamics in bismuth iron garnet. Journal of Physics Condensed Matter, 2016, 28, 276002.	1.8	9

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19	Preparation of magnetic composites of MIL-53(Fe) or MIL-100(Fe) via partial transformation of their framework into Fe_2O_3 . Journal of Materials Chemistry A, 2016, 4, 8141-8148.	10.3	32
20	Study of the electronic phase transition with low dimensionality in SrVO ₃ thin films. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2016, 212, 7-13.	3.5	28
21	Control of High Quality SrVO ₃ Electrode in Oxidizing Atmosphere. Advanced Materials Interfaces, 2016, 3, 1600274.	3.7	31
22	One-step continuous synthesis of functionalized magnetite nanoflowers. Nanotechnology, 2016, 27, 135604.	2.6	24
23	Excitation of magnetic precession in bismuth iron garnet via a polarization-independent impulsive photomagnetic effect. Physical Review B, 2015, 91, .	3.2	22
24	Conductivity type inversion in wide band gap antiferromagnetic FeTiO ₃ . Applied Physics Letters, 2013, 102, .	3.3	9
25	Magneto-optical nanomaterials: a SPIO- phthalocyanine scaffold built step-by-step towards bimodal imaging. Chemical Communications, 2013, 49, 7394.	4.1	12
26	Magnetic anisotropies in ultrathin bismuth iron garnet films. Journal of Magnetism and Magnetic Materials, 2013, 335, 139-143.	2.3	28
27	Fe_2O_3 Charge Ordering in the $\text{Bi}_2\text{Fe}_5\text{O}_{12}$ garnet thin films. Journal of Applied Physics, 2012, 112, .	7.8	23
28	Full spin polarization of complex ferrimagnetic bismuth iron garnet probed by magneto-optical Faraday spectroscopy. Physical Review B, 2013, 87, .	3.2	17
29	Investigation of high quality magnetite thin films grown on SrTiO ₃ (001) substrates by pulsed laser deposition. Thin Solid Films, 2012, 525, 115-120.	1.8	26
30	High temperature phase transitions and critical exponents of Samarium orthoferrite determined by <i>in situ</i> optical ellipsometry. Journal of Applied Physics, 2012, 111, .	2.5	15
31	Magnetic properties of the magnetophotonic crystal based on bismuth iron garnet. Journal of Applied Physics, 2012, 112, .	2.5	31
32	Magneto-optical Faraday spectroscopy of completely bismuth-substituted Bi ₃ Fe ₅ O ₁₂ garnet thin films. Journal Physics D: Applied Physics, 2012, 45, 455001.	2.8	45
33	Pulsed laser deposition and optical characterizations of the magnetic samarium orthoferrite. Thin Solid Films, 2012, 520, 1890-1894.	1.8	14
34	Microstructure and self-exchange coupling in a YFeO ₃ film. Journal of Applied Physics, 2011, 110, 043928.	2.5	14
35	Mechanism of the lattice relaxation in thin epitaxial films of iron oxides: Generalization from the case of ilmenite- hematite solid solution. Surface Science, 2011, 605, 1043-1047.	1.9	8
36	<i>In situ</i> optical characterization of metal-insulator transition in LaNiO ₃ and SrTiO ₃ perovskites in pulsed laser deposition chamber. Phase Transitions, 2011, 84, 501-508.	1.3	4

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37	Epitaxial growth of the high temperature ferromagnetic semiconductor $\text{Fe}_{1.5}\text{Ti}_{0.5}\text{O}_3$ on silicon-compatible substrate. Applied Physics Letters, 2011, 98, .	3.3	10
38	Magneto-photonic ring circulator in Bismuth Iron Garnet thin film: design and fabrication. Materials Research Society Symposia Proceedings, 2011, 1291, 1.	0.1	0
39	IR thermometry: a new tool for contactless in situ investigations of metal-insulator transition. Applied Physics A: Materials Science and Processing, 2010, 101, 47-51.	2.3	4
40	Wafer-scale fabrication of magneto-photonic structures in Bismuth Iron Garnet thin film. Microelectronic Engineering, 2010, 87, 2437-2442.	2.4	19
41	Spin reorientation induced by a very high magnetic field in domain-structured YFeO_3 . Emergence of perpendicular anisotropy. Physical Review B, 2010, 81, .	3.2	12
42	Determination of yttrium iron garnet superexchange parameters as a function of oxygen and cation stoichiometry. Physical Review B, 2010, 81, .	3.2	22
43	Structural, optical, and magnetic properties of the ferromagnetic semiconductor hematite-ilmenite $\text{Fe}_{2-x}\text{Ti}_x\text{O}_3$ thin films on $\text{SrTiO}_3(001)$ prepared by pulsed laser deposition. Journal of Applied Physics, 2010, 108, .	2.5	23
44	On the interface magnetism of thin oxidized Co films: orbital and spin moments. Journal of Physics Condensed Matter, 2009, 21, 124211.	1.8	9
45	Growth of the magnetic semiconductor $\text{Fe}_{2-x}\text{Ti}_x\text{O}_3$ thin films by pulsed laser deposition. Applied Physics A: Materials Science and Processing, 2008, 93, 669-674.	2.3	10
46	Curie temperature, exchange integrals, and magneto-optical properties in off-stoichiometric bismuth iron garnet epitaxial films. Physical Review B, 2008, 78, .	3.2	53
47	Magnetic and transport properties of the room-temperature ferrimagnetic semiconductor $\text{Fe}_{1.5}\text{Ti}_{0.5}\text{O}_3$: Influence of oxygen stoichiometry. Journal of Applied Physics, 2008, 103, 07D137.	2.5	14
48	Tuning of oxidation states in the LaNiO_3 perovskite around the insulator-metal transition. Journal of Applied Physics, 2008, 104, 103539.	2.5	11
49	Systematic investigation of the growth and structural properties of FeTiO_3 epitaxial thin films. Journal of Applied Physics, 2008, 103, 093909.	2.5	22
50	High temperature ellipsometry of the conductive oxide LaNiO_3 . Journal of Applied Physics, 2007, 101, 023529.	2.5	16
51	Reversible phase transformation of LaNiO_3 thin films studied in situ by spectroscopic ellipsometry. Physical Review B, 2007, 76, .	3.2	32
52	Temperature dependence of the interlayer exchange coupling in epitaxial $\text{Fe}_{1-x}\text{Mg}_x\text{O}\cdot\text{Fe}_{2-x}\text{Co}$ tunnel junctions. Applied Physics Letters, 2007, 91, 112504.	3.3	14
53	Tuning magnetic properties with off-stoichiometry in oxide thin films: An experiment with yttrium iron garnet as a model system. Physical Review B, 2007, 76, .	3.2	37
54	The influence of finite size and shape anisotropy on exchange bias: A study of patterned Co/CoO nanostructures. Journal of Magnetism and Magnetic Materials, 2006, 304, 14-18.	2.3	8

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55	Investigation of a one-dimensional magnetophotonic crystal for the study of ultrathin magnetic layer. Journal Physics D: Applied Physics, 2006, 39, 1012-1017.	2.8	5
56	Ferromagnetic resonance in the epitaxial system $\text{Fe}^{\hat{a}}\text{MgO}^{\hat{a}}\text{Fe}$ with coupled magnetic layers. Physical Review B, 2006, 74, .	3.2	12
57	Magnetization and polarized neutron reflectivity experiments on patterned exchange bias structures. European Physical Journal B, 2005, 45, 261-266.	1.5	19
58	Magnetization reversal in exchange biased Co/CoO patterns. European Physical Journal B, 2005, 44, 491-500.	1.5	15
59	Magnetization reversal in patterned ferromagnetic and exchange-biased nanostructures studied by neutron reflectivity (invited). Journal of Applied Physics, 2005, 97, 10K117.	2.5	16
60	Superexchange and iron valence control by off-stoichiometry in yttrium iron garnet thin films grown by pulsed laser deposition. Journal of Applied Physics, 2005, 97, 10G108.	2.5	27
61	Magnetization reversal in patterned structures using off-specular polarized neutron scattering. Journal of Magnetism and Magnetic Materials, 2004, 282, 6-10.	2.3	3
62	Exchange coupling in ultrathin epitaxial yttrium iron garnet films. European Physical Journal B, 2003, 31, 69-74.	1.5	14
63	Polarized neutron reflectometry on lithographically patterned thin film structures. Superlattices and Microstructures, 2003, 34, 87-105.	3.1	15
64	Magnetic and electronic properties of lithium cobalt oxide substituted by nickel. Solid State Ionics, 2003, 157, 125-132.	2.7	8
65	High tunnel magnetoresistance in epitaxial Fe/MgO/Fe tunnel junctions. Applied Physics Letters, 2003, 82, 4507-4509.	3.3	160
66	Antiferromagnetic coupling by spin polarized tunneling. Journal of Applied Physics, 2003, 93, 7519-7521.	2.5	10
67	Epitaxial MgO layer for low-resistance and coupling-free magnetic tunnel junctions. Applied Physics Letters, 2002, 81, 1035-1037.	3.3	56
68	Interlayer Magnetic Coupling Interactions of Two Ferromagnetic Layers by Spin Polarized Tunneling. Physical Review Letters, 2002, 89, 107206.	7.8	222
69	Structure and magnetic properties of yttrium-iron-garnet thin films prepared by laser deposition. Journal of Applied Physics, 2001, 90, 1422-1428.	2.5	83
70	Perpendicular magnetic anisotropy in ultrathin yttrium iron garnet films prepared by pulsed laser deposition technique. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2001, 19, 2567-2570.	2.1	51
71	Inverted hysteresis loops in ultrathin epitaxial yttrium iron garnet films. , 0, , .		0