Elena Popova

List of Publications by Year
in descending order

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	Interlayer Magnetic Coupling Interactions of Two Ferromagnetic Layers by Spin Polarized Tunneling. Physical Review Letters, 2002, 89, 107206.	7.8	222
2	High tunnel magnetoresistance in epitaxial Fe/MgO/Fe tunnel junctions. Applied Physics Letters, 2003, 82, 4507-4509.	3.3	160
3	Structure and magnetic properties of yttriumâ€“ironâ€“garnet thin films prepared by laser deposition. Journal of Applied Physics, 2001, 90, 1422-1428.	2.5	83
4	Epitaxial MgO layer for low-resistance and coupling-free magnetic tunnel junctions. Applied Physics Letters, 2002, 81, 1035-1037.	3.3	56
5	Curie temperature, exchange integrals, and magneto-optical properties in off-stoichiometric bismuth iron garnet epitaxial films. Physical Review B, 2008, 78, .	3.2	53
6	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
7	Magneto-optical Faraday spectroscopy of completely bismuth-substituted Bi₃Fe₅O₁₂ garnet thin films. Journal Physics D: Applied Physics, 2012, 45, 455001.	2.8	45
8	Faraday rotation in iron garnet films beyond elemental substitutions. Optica, 2019, 6, 642.	9.3	43
9	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
10	Picosecond acoustic-excitation-driven ultrafast magnetization dynamics in dielectric Bi-substituted yttrium iron garnet. Physical Review B, 2018, 98, .	3.2	34
11	Bismuth iron garnet Bi3Fe5O12: A room temperature magnetoelectric material. Applied Physics Letters, 2017, 110, .	3.3	33
12	Reversible phase transformation ofLaNiO3â”xthin films studiedin situby spectroscopic ellipsometry. Physical Review B, 2007, 76, .	3.2	32
13	Preparation of magnetic composites of MIL-53(Fe) or MIL-100(Fe) via partial transformation of their framework into Î³-Fe₂O₃. Journal of Materials Chemistry A, 2016, 4, 8141-8148.	10.3	32
14	Magnetic properties of the magnetophotonic crystal based on bismuth iron garnet. Journal of Applied Physics, 2012, 112, .	2.5	31
15	Control of High Quality SrVO₃ Electrode in Oxidizing Atmosphere. Advanced Materials Interfaces, 2016, 3, 1600274.	3.7	31
16	Magnetic anisotropies in ultrathin bismuth iron garnet films. Journal of Magnetism and Magnetic Materials, 2013, 335, 139-143.	2.3	28
17	Study of the electronic phase transition with low dimensionality in SrVO3 thin films. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2016, 212, 7-13.	3.5	28
18	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

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19	Investigation of high quality magnetite thin films grown on SrTiO3(001) substrates by pulsed laser deposition. Thin Solid Films, 2012, 525, 115-120.	1.8	26
20	One-step continuous synthesis of functionalized magnetite nanoflowers. Nanotechnology, 2016, 27, 135604.	2.6	24
21	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
22	Structural, optical, and magnetic properties of the ferromagnetic semiconductor hematite-ilmenite Fe2â^'xTixO3â^'Î´ thin films on SrTiO3(001) prepared by pulsed laser deposition. Journal of Applied Physics, 2010, 108, .	2.5	23
23	Influence of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msup><mml:mi>Fe</mml:mi><mml:mrow><mml:mn>2</mml:mn><mml:mo mathvariant="bold">+</mml:mo></mml:mrow></mml:msup></mml:math>-<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msup><mml:mi>Fe</mml:mi><mml:mrow><mml:mn>3</mml:mn><mml:mo mathvariant="bold">+</mml:mo></mml:mrow></mml:msup></mml:math>Charge Ordering in the Ferrim	7.8	23
24	Systematic investigation of the growth and structural properties of FeTiO3Â±Î´ epitaxial thin films. Journal of Applied Physics, 2008, 103, 093909.	2.5	22
25	Determination of yttrium iron garnet superexchange parameters as a function of oxygen and cation stoichiometry. Physical Review B, 2010, 81, .	3.2	22
26	Excitation of magnetic precession in bismuth iron garnet via a polarization-independent impulsive photomagnetic effect. Physical Review B, 2015, 91, .	3.2	22
27	Magnetization and polarized neutron reflectivity experiments on patterned exchange bias structures. European Physical Journal B, 2005, 45, 261-266.	1.5	19
28	Wafer-scale fabrication of magneto-photonic structures in Bismuth Iron Garnet thin film. Microelectronic Engineering, 2010, 87, 2437-2442.	2.4	19
29	Full spin polarization of complex ferrimagnetic bismuth iron garnet probed by magneto-optical Faraday spectroscopy. Physical Review B, 2013, 87, .	3.2	17
30	Interplay between epitaxial strain and low dimensionality effects in a ferrimagnetic oxide. Journal of Applied Physics, 2017, 121, .	2.5	17
31	Magnetization reversal in patterned ferromagnetic and exchange-biased nanostructures studied by neutron reflectivity (invited). Journal of Applied Physics, 2005, 97, 10K117.	2.5	16
32	High temperature ellipsometry of the conductive oxide LaNiO3. Journal of Applied Physics, 2007, 101, 023529.	2.5	16
33	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
34	Polarized neutron reflectometry on lithographically patterned thin film structures. Superlattices and Microstructures, 2003, 34, 87-105.	3.1	15
35	Magnetization reversal in exchange biased Co/CoO patterns. European Physical Journal B, 2005, 44, 491-500.	1.5	15
36	High temperature phase transitions and critical exponents of Samarium orthoferrite determined by in situ optical ellipsometry. Journal of Applied Physics, 2012, 111, .	2.5	15

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37	Exchange coupling in ultrathin epitaxial yttrium iron garnet films. European Physical Journal B, 2003, 31, 69-74.	1.5	14
38	Temperature dependence of the interlayer exchange coupling in epitaxial Fe1âˆ•MgOâˆ•Fe2âˆ•Co tunnel junctions. Applied Physics Letters, 2007, 91, 112504.	3.3	14
39	Magnetic and transport properties of the room-temperature ferrimagnetic semiconductor Fe1.5Ti0.5O3Â±Î´: Influence of oxygen stoichiometry. Journal of Applied Physics, 2008, 103, 07D137.	2.5	14
40	Microstructure and self-exchange coupling in a YFeO3 film. Journal of Applied Physics, 2011, 110, 043928.	2.5	14
41	Pulsed laser deposition and optical characterizations of the magnetic samarium orthoferrite. Thin Solid Films, 2012, 520, 1890-1894.	1.8	14
42	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
43	Enhanced magneto-optical Faraday effect in two-dimensional magnetoplasmonic structures caused by orthogonal plasmonic oscillations. Physical Review B, 2020, 102, .	3.2	13
44	Ferromagnetic resonance in the epitaxial systemFeâˆ•MgOâˆ•Fewith coupled magnetic layers. Physical Review B, 2006, 74, .	3.2	12
45	Spin reorientation induced by a very high magnetic field in domain-structured<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>YFeO</mml:mtext></mml:mrow><mml:mn>3</mml:mn></mml:m Emergence of perpendicular anisotropy. Physical Review B, 2010, 81, .	3.2	12
46	Magneto-optical nanomaterials: a SPIOâ€“phthalocyanine scaffold built step-by-step towards bimodal imaging. Chemical Communications, 2013, 49, 7394.	4.1	12
47	Tuning of oxidation states in the LaNiO3âˆ’Î´ perovskite around the insulator-metal transition. Journal of Applied Physics, 2008, 104, 103539.	2.5	11
48	Measurement of transient strain induced by two-photon excitation. Physical Review Research, 2020, 2, .	3.6	11
49	Antiferromagnetic coupling by spin polarized tunneling. Journal of Applied Physics, 2003, 93, 7519-7521.	2.5	10
50	Growth of the magnetic semiconductor Fe2âˆ’x Ti x O3Â±Î´ thin films by pulsed laser deposition. Applied Physics A: Materials Science and Processing, 2008, 93, 669-674.	2.3	10
51	Epitaxial growth of the high temperature ferromagnetic semiconductor Fe1.5Ti0.5O3 on silicon-compatible substrate. Applied Physics Letters, 2011, 98, .	3.3	10
52	Bismuth iron garnet: Ab initio study of electronic properties. Physical Review B, 2019, 100, .	3.2	10
53	On the interface magnetism of thin oxidized Co films: orbital and spin moments. Journal of Physics Condensed Matter, 2009, 21, 124211.	1.8	9
54	Conductivity type inversion in wide band gap antiferromagnetic FeTiO3. Applied Physics Letters, 2013, 102, .	3.3	9

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55	Spectrally resolved optical probing of laser induced magnetization dynamics in bismuth iron garnet. Journal of Physics Condensed Matter, 2016, 28, 276002.	1.8	9
56	Magnetic and electronic properties of lithium cobalt oxide substituted by nickel. Solid State Ionics, 2003, 157, 125-132.	2.7	8
57	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
58	Mechanism of the lattice relaxation in thin epitaxial films of iron oxides: Generalization from the case of ilmeniteâ€“hematite solid solution. Surface Science, 2011, 605, 1043-1047.	1.9	8
59	Atmosphereâ€Induced Reversible Resistivity Changes in Ca/Yâ€Doped Bismuth Iron Garnet Thin Films. Advanced Functional Materials, 2019, 29, 1904958.	14.9	8
60	Generation of spin waves via spin-phonon interaction in a buried dielectric thin film. Physical Review B, 2021, 103, .	3.2	8
61	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
62	IR thermometry: a new tool for contactless in situ investigations ofÂmetalâ€“insulator transition. Applied Physics A: Materials Science and Processing, 2010, 101, 47-51.	2.3	4
63	In situoptical characterization of metal-insulator transition in LaNiO₃and SrTiO₃perovskites in pulsed laser deposition chamber. Phase Transitions, 2011, 84, 501-508.	1.3	4
64	Magnetization reversal in patterned structures using off-specular polarized neutron scattering. Journal of Magnetism and Magnetic Materials, 2004, 282, 6-10.	2.3	3
65	Ultrafast control of lattice strain via magnetic circular dichroism. Physical Review B, 2021, 103, .	3.2	3
66	Ca₃(VO₄)₂ Nanowires on Metallic CaVO₃ Films as Nanocapacitors. ACS Applied Nano Materials, 2020, 3, 6684-6692.	5.0	2
67	Evolution of structural and magnetic properties of multifunctional bismuth iron garnets upon Ca and Y doping. Physical Review Materials, 2020, 4, .	2.4	1
68	Inverted hysteresis loops in ultrathin epitaxial yttrium iron garnet films. , 0, , .		0
69	Magneto-photonic ring circulator in Bismuth Iron Garnet thin film: design and fabrication. Materials Research Society Symposia Proceedings, 2011, 1291, 1.	0.1	0
70	Interplay between epitaxial strain and low dimensionality effects in a ferrimagnetic oxide. , 2017, , .		0
71	Bismuth iron garnet Bi<inf>3</inf>Fe<inf>5</inf>O<inf>12</inf>: A room temperature magnetoelectric material. , 2017, , .		0