Vassil Skumryev

List of Publications by Year
in descending order

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128	6,718	126907	62596
papers	citations	33 h-index	80 g-index

134	134	134	6998
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Exchange bias in nanostructures. Physics Reports, 2005, 422, 65-117.	25.6	1,722
2	Beating the superparamagnetic limit with exchange bias. Nature, 2003, 423, 850-853.	27.8	1,468
3	Electric-Field Control of Exchange Bias in Multiferroic Epitaxial Heterostructures. Physical Review Letters, 2006, 97, 227201.	7.8	295
4	Shell-Driven Magnetic Stability in Core-Shell Nanoparticles. Physical Review Letters, 2006, 97, 157203.	7.8	195
5	High- and Low-Temperature Crystal and Magnetic Structures of Îµ-Fe2O3and Their Correlation to Its Magnetic Properties. Chemistry of Materials, 2006, 18, 3889-3897.	6.7	150
6	Iron filled single-wall carbon nanotubes â€“ A novel ferromagnetic medium. Chemical Physics Letters, 2006, 421, 129-133.	2.6	130
7	Magnetic Frustration in an Iron-Based Cairo Pentagonal Lattice. Physical Review Letters, 2009, 103, 267204.	7.8	121
8	Magnetization Reversal by Electric-Field Decoupling of Magnetic and Ferroelectric Domain Walls in Multiferroic-Based Heterostructures. Physical Review Letters, 2011, 106, 057206.	7.8	121
9	Improving the energy product of hard magnetic materials. Physical Review B, 2002, 65, .	3.2	112
10	Magnetic, structural and microstructural properties of FePt/M (M=C,BN) granular films. IEEE Transactions on Magnetics, 2001, 37, 1292-1294.	2.1	111
11	Phonon and magnon scattering of antiferromagnetic<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>Bi</mml:mtext></mml:mrow><mml:mn>2</mml:mn></mml:msub> Physical Review B, 2010, 81, .	3.2	107
12	Criteria for saturated magnetization loop. Journal of Magnetism and Magnetic Materials, 2016, 402, 76-82.	2.3	88
13	Field-induced transition in the paramagnetic state of(Sm0.65Sr0.35)MnO3associated with magnetic clusters. Physical Review B, 1999, 60, 12847-12851.	3.2	81
14	Epitaxial stabilization of Îµ-Fe2O3 (00l) thin films on SrTiO3 (111). Applied Physics Letters, 2010, 96, .	3.3	79
15	The magnetization of epitaxial nanometric CoFe2O4(001) layers. Journal of Applied Physics, 2009, 106, .	2.5	72
16	Is gadolinium really ferromagnetic?. Nature, 1999, 401, 35-36.	27.8	64
17	Weak ferromagnetism in. European Physical Journal B, 1999, 11, 401.	1.5	64
18	High Temperature Magnetic Stabilization of Cobalt Nanoparticles by an Antiferromagnetic Proximity Effect. Physical Review Letters, 2015, 115, 057201.	7.8	61

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19	Emergence of ferromagnetism in antiferromagnetic TbMnO3 by epitaxial strain. Applied Physics Letters, 2010, 96, .	3.3	53
20	High anisotropy Smâ€“Co nanoparticles: Preparation by cluster gun technique and their magnetic properties. Journal of Applied Physics, 2003, 93, 7592-7594.	2.5	51
21	AC susceptibility of a magnetite crystal. Journal of Magnetism and Magnetic Materials, 1999, 196-197, 515-517.	2.3	49
22	Magnetoelectric effect and phase transitions in CuO in external magnetic fields. Nature Communications, 2016, 7, 10295.	12.8	47
23	Fabrication of ordered FePt nanoparticles with a cluster gun. Journal of Applied Physics, 2003, 93, 7190-7192.	2.5	42
24	ac susceptibility of a sphericalNd2Fe14B single crystal. Physical Review B, 1992, 46, 3496-3505.	3.2	41
25	Synthesis, structure, and magnetic studies on self-assembled BiFeO3â€“CoFe2O4 nanocomposite thin films. Journal of Applied Physics, 2008, 103, 07E301.	2.5	41
26	Crystal structure, electric and magnetic properties, and Raman spectroscopy ofGd3RuO7. Physical Review B, 2000, 62, 12235-12240.	3.2	40
27	Ferromagnetism in epitaxial orthorhombic YMnO3 thin films. Journal of Magnetism and Magnetic Materials, 2009, 321, 1719-1722.	2.3	38
28	The synthesis of superconducting bismuth compounds via oxalate coprecipitation. Physica C: Superconductivity and Its Applications, 1989, 157, 108-114.	1.2	37
29	Exchange biasing and electric polarization with YMnO3. Applied Physics Letters, 2006, 89, 032510.	3.3	37
30	Domain-wall dynamics in aligned boundSm2Fe17. Physical Review B, 1996, 53, 15014-15022.	3.2	35
31	High magnetic field studies of 3d and 4f magnetism in (R0.7A0.3)MnO3: R=La3+,â€‰Pr3+,â€‰Nd3+, A=Ca2+,â€‰Sr2+,â€‰Ba2+,â€‰Pb2+. Journal of Applied Physics, 1999, 85, 5384-5386.	2.5	34
32	Incommensurate magnetic structures of multiferroic MnWO<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>4</mml:mn></mml:msub></mml:math>studied within the superspace formalism. Physical Review B, 2013, 87, .	3.2	34
33	Direct Synthesis of Isolated L10 FePt Nanoparticles in a Robust TiO2 Matrix via a Combined Solâ€“Gel/Pyrolysis Route. Advanced Materials, 2006, 18, 466-470.	21.0	33
34	Comment on â€œExchange Bias Dependence on Interface Spin Alignment in a<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>Ni</mml:mi><mml:mn>80</mml:mn></mml:msub><mml:msub><mml:mi>Fe</mml:mi><mml:m stretchy="false">(</mml:mo><mml:mi>Ni</mml:mi><mml:mo>,</mml:mo><mml:mi>Fe</mml:mi><mml:mo) Tj ETQq0 0 0 rgBT /Overloc	7.8	32
35	Physical Review Letters, 2008, 100, 039701. Sample size dependence of the AC-susceptibility of sintered YBa2Cu3O7â˜Î´ superconductors. Physica C: Superconductivity and Its Applications, 1991, 184, 332-340.	1.2	31
36	Crystal texture selection in epitaxies of orthorhombic antiferromagnetic YMnO3 films. Thin Solid Films, 2008, 516, 4899-4907.	1.8	31

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37	Exchange coupling mechanism for magnetization reversal and thermal stability of Co nanoparticles embedded in a CoO matrix. Journal of Magnetism and Magnetic Materials, 2005, 294, 111-116.	2.3	27
38	Polar domain walls trigger magnetoelectric coupling. Scientific Reports, 2015, 5, 13784.	3.3	27
39	Physical properties of Bi1Ca1Sr1Cu2Ox superconductor obtained by rapid quenching from the melt. Physica C: Superconductivity and Its Applications, 1988, 152, 315-320.	1.2	26
40	Strain tuned magnetoelectric coupling in orthorhombic YMnO3 thin films. Applied Physics Letters, 2009, 95, .	3.3	26
41	Dielectric anomaly and magnetic response of epitaxial orthorhombic YMnO₃ thin films. Journal of Materials Research, 2007, 22, 2096-2101.	2.6	25
42	Strain-driven noncollinear magnetic ordering in orthorhombic epitaxial YMnO3 thin films. Journal of Applied Physics, 2010, 108, .	2.5	25
43	Dipolar Driven Spontaneous Self Assembly of Superparamagnetic Co Nanoparticles into Micrometric Rice-Grain like Structures. Langmuir, 2010, 26, 109-116.	3.5	25
44	Domain matching epitaxy of ferrimagnetic CoFe2O4 thin films on Sc2O3/Si(111). Applied Physics Letters, 2011, 99, .	3.3	25
45	Microstructural characterization of L10 FePt/MgO nanoparticles with perpendicular anisotropy. Applied Physics Letters, 2004, 85, 5343-5345.	3.3	23
46	Sputtering growth and characterization of CoFe2O4â€“BaTiO3 nanostructures. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2007, 144, 127-131.	3.5	23
47	Anisotropic paramagnetic response of hexagonal<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>R</mml:mi><mml:msub><mml:mrow><mml:mtext>MnO</mml:mtext></mml:mrow><mml:m Physical Review B, 2009, 79, .	3.2	22
48	Calibration of low-temperature ac susceptometers with a copper cylinder standard. Review of Scientific Instruments, 2010, 81, 025104.	1.3	22
49	Magnetic properties of gadolinium and terbium nanoparticles produced via multilayer precursors. Physical Review B, 2003, 67, .	3.2	21
50	Calibration of ac and dc magnetometers with a Dy2O3 standard. Review of Scientific Instruments, 2011, 82, 045112.	1.3	21
51	Anomalous anisotropic ac susceptibility response ofLa1â^'xSrxMnO3(xâ‰ˆ1/8)crystals: Relevance to phase separation. Physical Review B, 2000, 62, 3879-3882.	3.2	20
52	Conical antiferromagnetic order in the ferroelectric phase of Mn<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mrow><mml:mn>0.8</mml:mn></mml:mrow></mml:msub></mml:math>Co<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mrow><mml:mn>0.2</mml:mn></mml:mrow></mml:msub></mml:math>WO<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow />	3.2	20
53	<mml:mrow><mml:mn>0.90</mml:mn></mml:mrow></mml:msub></mml:math>Co<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mrow><mml:mn>0.10</mml:mn></mml:mrow></mml:msub></mml:math>WO<mml:math	3.2	20
54	Magnetic properties of bulk amorphous alloys Gd4Co3, Er4Co3, and Sm4Co3. Physica Status Solidi A, 1983, 75, 401-404.	1.7	19

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55	Why the iron magnetization in Gd2Fe14B and the spontaneous magnetization of Y2Fe14B depend on temperature differently. Journal of Applied Physics, 2010, 107, .	2.5	19
56	Monolithic integration of room-temperature multifunctional BaTiO3-CoFe2O4 epitaxial heterostructures on Si(001). Scientific Reports, 2016, 6, 31870.	3.3	19
57	Magnetoelastic coupling in La<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mrow><mml:mn>2</mml:mn><mml:mo>/</mml:mo><mml:mn>3</mml:mn></mml:mrow></mml:msub></mml:math>Sr<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mrow><mml:mn>1</mml:mn><mml:mo>/</mml:mo><mml:mn>3</mml:mn></mml:mrow></mml:msub></mml:math>MnO<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mrow /></mml:msub></mml:math>. Physical	3.2	17
58	Epitaxial growth of biferroic YMnO3(0001) on platinum electrodes. Journal of Crystal Growth, 2007, 299, 288-294.	1.5	16
59	Magnetic response of YbMnO3 single crystal. Journal of Applied Physics, 2008, 103, .	2.5	16
60	Ferroelectricity and strain effects in orthorhombic YMnO₃thin films. Phase Transitions, 2011, 84, 555-568.	1.3	16
61	CoFe2O4/buffer layer ultrathin heterostructures on Si(001). Journal of Applied Physics, 2011, 110, .	2.5	16
62	Low-field ac susceptibility and microwave absorption in YBaCuO and BiCaSrCuO superconductors. Physica C: Superconductivity and Its Applications, 1988, 156, 73-78.	1.2	15
63	Flat epitaxial ferromagnetic CoFe2O4 films on buffered Si(001). Thin Solid Films, 2011, 519, 5726-5729.	1.8	15
64	X phase of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mrow><mml:mi mathvariant="normal">MnWO</mml:mi></mml:mrow><mml:mn>4</mml:mn></mml:msub></mml:math>. Physical Review B, 2014, 90, .	3.2	15
65	Raman spectroscopy of alpha-FeOOH (goethite) near antiferromagnetic to paramagnetic phase transition. Journal of Applied Physics, 2020, 127, .	2.5	15
66	Alternating current susceptibility of a gadolinium crystal. Journal of Applied Physics, 2000, 87, 7028-7030.	2.5	14
67	Influence of substrate temperature in BiFeO3â€“CoFe2O4 nanocomposites deposited on SrTiO3 (001). Journal of Magnetism and Magnetic Materials, 2009, 321, 1790-1794.	2.3	14
68	Phase coexistence and magnetically tuneable polarization in cycloidal multiferroics. Physical Review B, 2013, 88, .	3.2	14
69	Ensemble averaged structureâ€“function relationship for nanocrystals: effective superparamagnetic Fe clusters with catalytically active Pt skin. Nanoscale, 2017, 9, 15505-15514.	5.6	14
70	Short-range order in RE4Al3 metallic glasses (RE = Pr, Gd, Tb, Dy). Journal of Non-Crystalline Solids, 1989, 110, 184-189.	3.1	12
71	Paramagnetic behavior and correlation between high- and low-temperature structural and magnetic transitions inLa1âˆ’xSrxMnO3(xâ¼1/8)single-crystal perovskites. Physical Review B, 2001, 64, .	3.2	12
72	Discrimination between coupling and anisotropy fields in exchange-biased bilayers. Journal of Applied Physics, 2009, 105, 053903.	2.5	12

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73	Functional spinel oxide heterostructures on silicon. CrystEngComm, 2014, 16, 10741-10745.	2.6	12
74	Magnetic properties of bulk amorphous R57T43 alloys (R = Dy, Er; T = Co, Fe). Journal of Magnetism and Magnetic Materials, 1983, 31-34, 1499-1500.	2.3	11
75	Synthesis, Structural Characterization, and Cytotoxic Activity of Novel Paramagnetic Platinum Hematoporphyrin IX Complexes: Potent Antitumor Agents. Metal-Based Drugs, 2007, 2007, 1-13.	3.8	11
76	Synthesis, structure and in vitro cytotoxic studies of novel paramagnetic palladium(III) complexes with hematoporphyrin IX. Journal of Inorganic Biochemistry, 2013, 124, 54-62.	3.5	11
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91	Magnetic behavior of La2CoMnO6â^' crystal doped with Pb and Pt. Materials Research Bulletin, 2012, 47, 4001-4005.	5.2	7
92	Single-crystal neutron diffraction study of hexagonal multiferroic <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>YbMnO</mml:mi><mml:mn>3</mml:mn></mml:msub></ under a magnetic field. Physical Review B, 2018, 98, .	3.2	7
93	Magnetic properties of bulk amorphous alloy Dy4Co3. Journal of Non-Crystalline Solids, 1983, 55, 159-164.	3.1	6
94	Magnetic properties of bulk amorphous Ho<inf>4</inf>Fe<inf>3</inf>. IEEE Transactions on Magnetics, 1986, 22, 560-562.	2.1	6
95	Influence of Microstructure on Superconducting Properties of YBa2Cu3O7â^'Î´ Studied by Means of AC-Susceptibility. Physica Status Solidi A, 1992, 129, 509-517.	1.7	6
96	Influence of Ga on the Fe anisotropy in. Journal of Physics Condensed Matter, 1998, 10, 4035-4044.	1.8	6
97	Thickness dependence of coercivity in FePt/C multilayers. Journal of Magnetism and Magnetic Materials, 2004, 272-276, 1625-1627.	2.3	6
98	Copper(II) complexes with 4-amino-Î±-(t-butylaminomethyl)-3,5-dichlorobenzyl alcohol hydrochloride (Clenbuterol). Crystal structures of the binuclear and mononuclear Cu(II) complexes with Clenbuterol. Polyhedron, 2005, 24, 1983-1990.	2.2	6
99	Proof of the elusive high-temperature incommensurate phase in CuO by spherical neutron polarimetry. Science Advances, 2020, 6, eaay7661.	10.3	6
100	Magnetic properties of amorphous Gd4Fe3 and Y4Fe3 alloys. Materials Science and Engineering, 1988, 99, 113-117.	0.1	5
101	Epitaxial ferromagnetic oxide thin films on silicon with atomically sharp interfaces. Applied Physics Letters, 2014, 105, .	3.3	5
102	Comment on â€œSuperspin Glass Mediated Giant Spontaneous Exchange Bias in a Nanocomposite of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>BiFeO</mml:mi></mml:mrow><mml:mrow><mml:mn>3</mml:mn></ Physical Review Letters, 2015, 114, 099703.	7.8	5
103	Alternating current susceptibility study of the low doped regime of La1â^'xSrxMnO3 perovskites. Journal of Applied Physics, 2001, 89, 6633-6635.	2.5	4
104	Magnetic field-temperature phase diagrams of multiferroic <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mo>(</mml:mo><mml:msub><mml:mi>Ni</mml:mi><mml:m mathvariant="normal">V</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mn>8</mml:mn></mm. Physical Review B, 2016, 94, .	3.2	4
105	Exchange bias and major coercivity enhancement in strongly-coupled CuO/Co films. Journal of Magnetism and Magnetic Materials, 2018, 449, 5-9.	2.3	4
106	Structural investigations of rapidly quenched Gd4Co3 and Gd4Fe3 alloys. Journal of Non-Crystalline Solids, 1987, 94, 195-202.	3.1	3
107	New high-Tc 2-2-3 type superconductor Y2Ba1.5Ca0.5Cu3O8+Î´. Solid State Communications, 1990, 73, 511-513.	1.9	3
108	Growth and characterization of Pb₃Ni_{1.5}Mn_{5.5}O₁₅single crystal. Journal of Physics Condensed Matter, 2011, 23, 156001.	1.8	3

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109	Unveiling the Mechanisms Governing the Exchange Coupling and Coercivity Modifications in Annealed or Ion-Irradiated <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:mrow><mml:mrow><mml:mi>Ir</mml:mi><mml:mtext>â^'</mml:mtext><mml:mi>Mn</mml:mi></mml:mrow> / <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:mi>Fe</mml:mi></mml:math> / <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" dis. Physical Review Applied, 2018, 10, .	3.8	3
110	Alternating current susceptibility study of Dy2Fe17â^'xGax compounds. Journal of Applied Physics, 1998, 83, 7145-7147.	2.5	2
111	High field magnetization study and analysis of magnetic interactions in Dy2Fe17â^'xGax (x=5â€"8) compounds. Journal of Magnetism and Magnetic Materials, 2001, 231, 157-161.	2.3	2
112	Neutron diffraction study of the (BiFeO3)1â^'x(PbTiO3)xsolid solution: nanostructured multiferroic system. Journal of Physics Condensed Matter, 2015, 27, 046004.	1.8	2
113	Infrared phonon spectroscopy on the Cairo pentagonal antiferromagnet <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Bi</mml:mi><mml:mn>2</mml:mn></mml:m mathvariant="normal">O</mml:mi><mml:mn>9</mml:mn></mml:msub></mml:mrow></mml:math> : A study through the pressure-induced structural transition. Physical Review B, 2021, 103, .	3.2	2
114	Correlation between the structure and the magnetic properties of Gd4Me3 metallic glasses (Me = Al,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf Processing, 1991, 133, 252-255.	5.6	1
115	Anisotropy constants and crystal-field parameters of Sm2Fe17-xGax. Journal of Physics Condensed Matter, 1999, 11, 7339-7345.	1.8	1
116	Application of Energy-Filtered Imaging and HREM in the Study of Terbium Nanoparticles. Microscopy and Microanalysis, 2002, 8, 1360-1361.	0.4	1
117	Copper(II) complexes of the antihypertensive drug nadolol. Open Chemistry, 2007, 5, 118-131.	1.9	1
118	AMORPHOUS Gd₅₇Al₄₃ - A NEW "FERROGLASS" ALLOY. Journal De Physique Colloque, 1988, 49, C8-1363-C8-1364.	0.2	1
119	Tl 0.75 Pb 0.20 Sb 0.05 Ca 2 Ba 3 Cu 4 O y high T c superconductor. Physica C: Superconductivity and Its Applications, 1989, 162-164, 995-996.	1.2	0
120	Magnetic properties of YBa1.5Ca0.5Cu3O7â^'Î´ superconductor. Solid State Communications, 1989, 72, 1203-1205.	1.9	0
121	Energy gaps of Bi-Sr-Ca-Cu-O monocrystal determined by AC-susceptibility. IEEE Transactions on Magnetics, 1993, 29, 3598-3600.	2.1	0
122	Synthesis and Magnetic Properties of (Ln,Lnâ€²)3(Fe,Ti)29 (Ln: Pr, Nd and Lnâ€²: Sm, Er) Intermetallic Compounds.. ChemInform, 2003, 34, no.	0.0	0
123	Effect of post deposition annealing on the hysteresis loops of sputtered NdFeB film. , 0, , .		0
124	Thickness Effect on the Formation of FePt Nanoparticles in FePt/C Multilayers. Microscopy and Microanalysis, 2003, 9, 514-515.	0.4	0
125	Comparative study of the field-induced and spontaneous AF2â€² multiferroic phases in MnWO₄and Mn_{0.90}Co_{0.10}WO₄within the magnetic symmetry framework. Journal of Applied Crystallography, 2016, 49, 520-527.	4.5	0
126	Magnetic Properties of Amorphous Gd4Fe3 and Y4Fe3 Alloys. , 1988, , 113-117.		0

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127	Correlation between the structure and the magnetic properties of Gd4Me3 metallic glasses (Me = Al,) Tj ETQq1 1 0.784314 rgBT /Ove		0
128	MAGNETIC PROPERTIES OF Y1Ba2Cu3Ox SUPERCONDUCTOR OBTAINED BY RAPID QUENCHING FROM THE MELT. Journal De Physique Colloque, 1988, 49, C8-2183-C8-2184.	0.2	0