

# Plamen Stamenov

## List of Publications by Year in descending order

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93

papers

3,765

citations

159525

30

h-index

128225

60

g-index

94

all docs

94

docs citations

94

times ranked

4535

citing authors

#	ARTICLE	IF	CITATIONS
1	Spin-orbit torque switching without an external field using interlayer exchange coupling. <i>Nature Nanotechnology</i> , 2016, 11, 758-762.	15.6	411
2	Magnetism in hafnium dioxide. <i>Physical Review B</i> , 2005, 72, .	1.1	408
3	Magnetism in dilute magnetic oxide thin films based on SnO <sub>2</sub> . <i>Physical Review B</i> , 2006, 74, .	1.1	253
4	Ferromagnetism in defect-ridden oxides and related materials. <i>New Journal of Physics</i> , 2010, 12, 053025.	1.2	245
5	High spin polarization in epitaxial films of ferrimagnetic Mn <sub>3</sub> Sn <sub>2</sub> O <sub>6</sub> . <i>Physical Review B</i> , 2011, 83, .	1.1	245
6	Mn <sub>3</sub> xGa (0<x<1): Multifunctional thin film materials for spintronics and magnetic recording. <i>Physica Status Solidi (B): Basic Research</i> , 2011, 248, 2338-2344.	0.7	142
7	Designing switchable polarization and magnetization at room temperature in an oxide. <i>Nature</i> , 2015, 525, 363-366.	13.7	122
8	Additive Manufacturing of Ti <sub>3</sub> C <sub>2</sub> Xene Functionalized Conductive Polymer Hydrogels for Electromagnetic Interference Shielding. <i>Advanced Materials</i> , 2022, 34, e2106253.	11.1	115
9	Cubic Mn <sub>2</sub> Sn <sub>2</sub> O <sub>6</sub> Films: Crossing the Spin Gap with Ruthenium. <i>Physical Review Letters</i> , 2014, 112, 027201.	11.3	113
10	Giant heterogeneous magnetostriction in Fe-Ga alloys: Effect of trace element doping. <i>Acta Materialia</i> , 2016, 109, 177-186.	3.8	112
11	Magnetic and electronic properties of D <sub>22</sub> -Mn <sub>3</sub> Ge (001) films. <i>Applied Physics Letters</i> , 2012, 101, .	1.5	88
12	Magnetic, magnetotransport, and optical properties of Al-doped Zn <sub>0.95</sub> Co <sub>0.05</sub> O thin films. <i>Applied Physics Letters</i> , 2007, 90, 242508.	1.5	83
13	Site-specific order and magnetism in tetragonal Mn <sub>3</sub> Sn <sub>2</sub> O <sub>6</sub> Ga thin films. <i>Physical Review B</i> , 2013, 87, .	1.1	81
14	Single pulse all-optical toggle switching of magnetization without gadolinium in the ferrimagnet Mn <sub>2</sub> RuxGa. <i>Nature Communications</i> , 2020, 11, 4444.	5.8	76
15	Sample size, position, and structure effects on magnetization measurements using second-order gradiometer pickup coils. <i>Review of Scientific Instruments</i> , 2006, 77, 015106.	0.6	66
16	Oriented cobalt nanowires prepared by electrodeposition in a porous membrane. <i>Journal of Magnetism and Magnetic Materials</i> , 2005, 290-291, 1210-1213.	1.0	63
17	The structural, magnetic and microwave properties of spherical and flake shaped carbonyl iron particles as thin multilayer microwave absorbers. <i>Journal of Magnetism and Magnetic Materials</i> , 2017, 428, 28-35.	1.0	62
18	Surface magnetism of strontium titanate. <i>Journal of Physics Condensed Matter</i> , 2016, 28, 485001.	0.7	61

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19	Magnetization Process in Dilute Magnetic Oxides. IEEE Transactions on Magnetics, 2010, 46, 2501-2503.	1.2	54
20	Dynamic response of ammonia sensors constructed from polyaniline nanofibre films with varying morphology. Sensors and Actuators B: Chemical, 2012, 161, 989-999.	4.0	49
21	Joule Heating Effect on Field-Free Magnetization Switching by Spin-Orbit Torque in Exchange-Biased Systems. Physical Review Applied, 2017, 7, .	1.5	48
22	Magnetic stabilization and vorticity in submillimeter paramagnetic liquid tubes. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 8811-8817.	3.3	47
23	Magnetic susceptibility of carbonâ€”experiment and theory. Journal of Magnetism and Magnetic Materials, 2005, 290-291, 279-285.	1.0	41
24	Anisotropy of the magnetization of a dilute magnetic oxide. Journal of Magnetism and Magnetic Materials, 2005, 290-291, 1405-1407.	1.0	38
25	Exchange-biased magnetic tunnel junctions with antiferromagnetic $\mu$ -Mn <sub>3</sub> Ga. Applied Physics Letters, 2012, 101, .	1.5	37
26	Site-specific magnetism of half-metallic Mn <sub>2</sub> Ru <sub>x</sub> Gathin films determined by x-ray absorption spectroscopy. Physical Review B, 2015, 91, .	1.1	36
27	Giant spontaneous Hall effect in zero-moment Mn <sub>2</sub> Ru <sub>x</sub> Ga. Applied Physics Letters, 2015, 106, .	1.5	35
28	Magnetoresistance of Co-doped ZnO thin films. Journal of Applied Physics, 2006, 99, 08M124.	1.1	34
29	Room Temperature Magnetically Ordered Polar Corundum GaFeO <sub>3</sub> Displaying Magnetoelectric Coupling. Journal of the American Chemical Society, 2017, 139, 1520-1531.	6.6	34
30	Tunnelling magnetoresistance of the half-metallic compensated ferrimagnet Mn <sub>2</sub> Ru <sub>x</sub> Ga. Applied Physics Letters, 2016, 108, .	1.5	32
31	Room temperature ferromagnetism in Mn- and Fe-doped indium tin oxide thin films. Journal of Applied Physics, 2008, 103, 07D135.	1.1	29
32	Magnetoresistance of CuCrO <sub>2</sub> -based delafossite films. Journal of Physics: Conference Series, 2010, 200, 052021.	0.3	27
33	Exchange-driven all-optical magnetic switching in compensated $\text{Cu}_{1-x}\text{Cr}_x\text{O}_2$ ferrimagnets. Physical Review Research, 2020, 2, .	1.0	24
34	The zero-moment half metal: How could it change spin electronics?. AIP Advances, 2016, 6, .	0.6	22
35	Ultra-soft magnetic Co-Fe-B-Si-Nb amorphous alloys for high frequency power applications. AIP Advances, 2018, 8, .	0.6	21
36	Fabrication and soft magnetic properties of rapidly quenched Co-Fe-B-Si-Nb ultra-thin amorphous ribbons. Journal of Magnetism and Magnetic Materials, 2019, 483, 54-58.	1.0	21

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37	Ultrafast Double Pulse All-Optical Reswitching of a Ferrimagnet. <i>Physical Review Letters</i> , 2021, 126, 177202.	2.9	21
38	Magnetocrystalline anisotropy and exchange probed by high-field anomalous Hall effect in fully compensated half-metallic $\text{Mn}_2\text{Mn}_{1-x}\text{Ti}_x$ thin films. <i>Physical Review B</i> , 2018, 98, .	1.1	20
39	Magnetic and structural properties of Co-doped ZnO thin films. <i>Journal of Magnetism and Magnetic Materials</i> , 2007, 310, 2087-2088.	1.0	18
40	A New Highly Anisotropic Rh-Based Heusler Compound for Magnetic Recording. <i>Advanced Materials</i> , 2020, 32, 2004331.	11.1	18
41	Antiferromagnetic single-layer spin-orbit torque oscillators. <i>Physical Review B</i> , 2019, 99, .	1.1	17
42	Magnetism and Faraday Rotation in Oxygen-Deficient Polycrystalline and Single-Crystal Iron-Substituted Strontium Titanate. <i>Physical Review Applied</i> , 2017, 7, .	1.5	16
43	Structure, site-specific magnetism, and magnetotransport properties of epitaxial $\text{Fe}_2\text{O}_3/\text{SrTiO}_3$ heterostructures. <i>Physical Review B</i> , 2017, 96, .	1.1	16
44	Highly Conductive Networks of Silver Nanosheets. <i>Small</i> , 2022, 18, e2105996.	5.2	16
45	Dependence of charge carrier injection on the interface energy barrier in short-channel polymeric field effect transistors. <i>Applied Physics Letters</i> , 2012, 100, .	1.5	15
46	Vector vibrating-sample magnetometer with permanent magnet flux source. <i>Journal of Applied Physics</i> , 2006, 99, 08D912.	1.1	14
47	High Fermi-level spin polarization in the $\text{Co}_x\text{Fe}_{1-x}\text{O}$ family of topological insulators: A point contact Andreev reflection. <i>Physical Review B</i> , 2016, 94, .	1.1	12
48	Charge injection, transport and localization in rubrene. <i>Synthetic Metals</i> , 2011, 161, 563-569.	2.1	11
49	Magnetization dynamics of the compensated ferrimagnet $\text{Mn}_2\text{Mn}_{1-x}\text{Ti}_x$ . <i>Physical Review B</i> , 2019, 100, .	1.1	10
50	Point Contact Andreev Reflection from Erbium: The role of external magnetic field and the sign of the spin polarization. <i>Journal of Applied Physics</i> , 2012, 111, 07C519.	1.1	10
51	Magnetization processes in micron-scale (CoFe/Pt) <sub>n</sub> multilayers with perpendicular anisotropy: First-order reversal curves measured by extraordinary Hall effect. <i>Journal of Applied Physics</i> , 2012, 111, 07B538.	1.1	10
52	Point contact Andreev reflection from semimetallic bismuth: The roles of the minority carriers and the large spin-orbit coupling. <i>Journal of Applied Physics</i> , 2013, 113, .	1.1	10
53	Improved magnetic performance of Cobalt-based ribbons by nanocrystallization through magnetic annealing. <i>Journal of Magnetism and Magnetic Materials</i> , 2020, 503, 166630.	1.0	9
54	Magnetic order and magnetotransport in half-metallic ferrimagnetic $\text{Mn}_2\text{Mn}_{1-x}\text{Ti}_x$ thin films. <i>Physical Review B</i> , 2021, 104, .	1.1	9

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55	Electron and spin transport studies of gated lateral organic devices. <i>Journal of Applied Physics</i> , 2012, 112, .	1.1	8
56	Magnetic, transport, and structural properties of SrRuO <sub>3</sub> thin films. <i>Journal of Applied Physics</i> , 2014, 115, 17C735.	1.1	8
57	On the mechanisms limiting power loss in amorphous CoFeB-based melt-spun ribbons. <i>Journal of Magnetism and Magnetic Materials</i> , 2020, 502, 166535.	1.0	8
58	Shubnikovâ€“de Haas and Hall quantum oscillations in graphite. <i>Journal of Magnetism and Magnetic Materials</i> , 2005, 290-291, 1402-1404.	1.0	7
59	Influence of an Au capping layer on the magnetic properties of CoPt nanowires. <i>Applied Physics Letters</i> , 2011, 98, .	1.5	7
60	High-frequency power loss mechanisms in ultra-thin amorphous ribbons. <i>Journal of Magnetism and Magnetic Materials</i> , 2021, 519, 167469.	1.0	7
61	Sub-picosecond exchangeâ€“relaxation in the compensated ferrimagnet Mn <sub>2</sub> Ru <sub>x</sub> Ga. <i>Journal of Physics Condensed Matter</i> , 2021, 33, 135804.	0.7	7
62	Single-pulse all-optical partial switching in amorphous Dy <sub>x</sub> Co <sub>1-x</sub> and Tb <sub>x</sub> Co <sub>1-x</sub> with random anisotropy. <i>Applied Physics Letters</i> , 2022, 120, .	1.5	7
63	Magnetization of electrodeposited nickel: Role of interstitial carbon. <i>Journal of Applied Physics</i> , 2006, 99, 08J301.	1.1	6
64	Magnetic susceptibility of Alq <sub>3</sub> powder, pure and Al-doped 8-hydroxyquinoline. <i>Journal of Magnetism and Magnetic Materials</i> , 2010, 322, 1255-1258.	1.0	6
65	Fermi level spin polarization of polycrystalline thulium by point contact Andreev reflection spectroscopy. <i>Journal of Applied Physics</i> , 2011, 109, .	1.1	6
66	Spin transfer torque in $\text{Mn}_{1-x}\text{Fe}_x/\text{Ta}/\text{Mn}_{1-y}\text{Fe}_y/\text{Ta}$ -based ferrimagnetic tunnel junctions from first principles. <i>Physical Review B</i> , 2021, 103, .		
67	Structural distortions and charge/orbital ordering in Bi <sub>0.25</sub> Ho <sub>0.25</sub> Ca <sub>0.5</sub> MnO <sub>3</sub> . <i>Physica B: Condensed Matter</i> , 2004, 350, E13-E17.	1.3	5
68	Effect of insertion layer on electrode properties in magnetic tunnel junctions with a zero-moment half-metal. <i>Scientific Reports</i> , 2019, 9, 4020.	1.6	5
69	Magnetic reversal and pinning in a perpendicular zero-moment half-metal. <i>Physical Review Materials</i> , 2021, 5, .	0.9	5
70	Spin polarization and magnetotransport properties of systematically disordered $\text{Mn}_{1-x}\text{Fe}_x/\text{Ta}/\text{Mn}_{1-y}\text{Fe}_y/\text{Ta}$ thin films. <i>Physical Review B</i> , 2021, 104, .		
71	High field magnetotransport and point contact Andreev reflection measurements on CuCr <sub>2</sub> Se <sub>4</sub> and CuCr <sub>2</sub> Se <sub>3</sub> Br. Degenerate magnetic semiconductor single crystals. <i>Journal of Applied Physics</i> , 2014, 115, 17C717.	1.1	4
72	Use of slits of defined width in metal layers within ID-1 cards, as reactive couplers for near-field passive RFID at 13.56 MHz. , 2016, , .		4

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73	Note: Direct piezoelectric effect microscopy. <i>Review of Scientific Instruments</i> , 2015, 86, 076102.	0.6	3
74	Multiple contacts investigation of single silicon nanowires with the active voltage contrast scanning electron microscopy technique. <i>Measurement Science and Technology</i> , 2019, 30, 017002.	1.4	3
75	Spin liquids and spin glasses in Mn-based alloys with the cubic A13 ( $\hat{t}^2\text{Mn}$ ) structure. <i>Journal of Magnetism and Magnetic Materials</i> , 2020, 501, 166429.	1.0	3
76	Modeling of Electronic Transport through Metal/Polymer Interfaces in Thin Film Transistors. <i>ISRN Electronics</i> , 2013, 2013, 1-6.	1.1	3
77	SQUID-detected FMR: Resonance in single crystalline and polycrystalline yttrium iron garnet. <i>Review of Scientific Instruments</i> , 2018, 89, 044701.	0.6	2
78	Hall Effect Measurements in Rotating Magnetic Field on Sub-30-nm Silicon Nanowires Fabricated by a Top-down Approach. <i>IEEE Transactions on Electron Devices</i> , 2020, 67, 5201-5208.	1.6	2
79	CALPHAD-assisted development of in-situ nanocrystallised melt-spun Co-Fe-B alloy with high B (1.57 T). <i>Journal of Alloys and Compounds</i> , 2021, 877, 160194.	2.8	2
80	Growth of $c$ -axis-oriented aluminum nitride thin films onto different substrates and buffer layers. <i>Surface and Interface Analysis</i> , 2015, 47, 447-453.	0.8	1
81	4D full-vector radio frequency complex magnetic susceptibility mapping. Near-field imaging of RFID tags. <i>AIP Advances</i> , 2019, 9, .	0.6	1
82	Thickness-Dependent THz Emission From Ultrathin Ferrimagnetic $\text{Mn}_{3-x}\text{Ga}$ Films. , 2019, , .		1
83	Strategies for Fabricating Nanogap Single-Crystal Organic Transistors. <i>ISRN Nanotechnology</i> , 2012, 2012, 1-6.	1.3	1
84	On the direct magnetic detection of spin injection and adiabatic depolarization in aluminum. <i>Journal of Magnetism and Magnetic Materials</i> , 2008, 320, 403-406.	1.0	0
85	Schottky barriers of rare-earth transition-metal intermetallics on silicon. <i>Journal of Physics: Conference Series</i> , 2010, 200, 072094.	0.3	0
86	High-field anisotropy of the tunnelling magnetoresistance of CoFeB/MgO/CoFeB junctions. <i>Journal of Magnetism and Magnetic Materials</i> , 2010, 322, 1413-1415.	1.0	0
87	Fermi Level Engineering of $\text{Mn}_{\lt} \text{inf} \gt; 2 \lt \text{inf} \gt; \text{Ru}_{\lt} \text{inf} \gt; \text{x} \lt \text{inf} \gt; \text{Ga}$ Thin Films. , 2018, , .		0
88	An apparatus and methodology for high-power SQUID-detected ferromagnetic resonance measurements. <i>AIP Advances</i> , 2019, 9, 035152.	0.6	0
89	Light Manipulation with Plasmonic Structures using Phase Change Materials. , 2019, , .		0
90	Tuning Metasurfaces with Phase Change Materials. , 2019, , .		0

# ARTICLE

IF CITATIONS

91 Magnetism of the Elements. , 2021, , 1-34. 0

92 Magnetism of the Elements. , 2021, , 659-692. 0

93 Stability of Mn<sub>2</sub>Ru Ga-based multilayer stacks. Thin Solid Films, 2022, 745, 139104. 0.8 0