

Jaivardhan Sinha

List of Publications by Year in descending order

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58
papers

2,618
citations

331670

21
h-index

223800

46
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61
all docs

61
docs citations

61
times ranked

2689
citing authors

#	ARTICLE	IF	CITATIONS
1	Layer thickness dependence of the current-induced effective field vector in Ta CoFeB MgO. Nature Materials, 2013, 12, 240-245.	27.5	835
2	Interface control of the magnetic chirality in CoFeB/MgO heterostructures with heavy-metal underlayers. Nature Communications, 2014, 5, 4655.	12.8	327
3	The 2021 Magnonics Roadmap. Journal of Physics Condensed Matter, 2021, 33, 413001.	1.8	287
4	Enhanced interface perpendicular magnetic anisotropy in Ta CoFeB MgO using nitrogen doped Ta underlayers. Applied Physics Letters, 2013, 102, .	3.3	117
5	Cost effective liquid phase exfoliation of MoS2 nanosheets and photocatalytic activity for wastewater treatment enforced by visible light. Scientific Reports, 2020, 10, 10759.	3.3	100
6	Anomalous temperature dependence of current-induced torques in CoFeB/MgO with Ta-based underlayers. Physical Review B, 2014, 89, .	3.2	78
7	Current-driven asymmetric magnetization switching in perpendicularly magnetized CoFeB/MgO heterostructures. Physical Review B, 2015, 91, .	3.2	78
8	Influence of boron diffusion on the perpendicular magnetic anisotropy in Ta CoFeB MgO ultrathin films. Journal of Applied Physics, 2015, 117, .	2.5	74
9	Direct Observation of Interfacial Dzyaloshinskii-Moriya Interaction from Asymmetric Spin-wave Propagation in W/CoFeB/SiO2 Heterostructures Down to Sub-nanometer CoFeB Thickness. Scientific Reports, 2016, 6, 32592.	3.3	67
10	All-optical detection of interfacial spin transparency from spin pumping in \hat{I}^2 -Ta/CoFeB thin films. Science Advances, 2019, 5, eaav7200.	10.3	60
11	Disorder-induced phase coexistence in bulk doped manganites and its suppression in nanometer-sized crystals: The case of $\text{La}_{0.9}\text{Ca}_{0.1}\text{MnO}_3$. Physical Review B, 2007, 76, .	3.2	57
12	Spin Dynamics and Damping in Ferromagnetic Thin Films and Nanostructures. , 2018, , .		56
13	All-optical detection of the spin Hall angle in $\text{W}/\text{CoFeB}/\text{MgO}$ with varying thickness of the tungsten layer. Physical Review B, 2017, 96, .	3.2	47
14	Giant nonreciprocal emission of spin waves in Ta/Py bilayers. Science Advances, 2016, 2, e1501892.	10.3	41
15	Tunable Magnetization Dynamics in Interfacially Modified Ni81Fe19/Pt Bilayer Thin Film Microstructures. Scientific Reports, 2015, 5, 17596.	3.3	39
16	Enhanced orbital magnetic moments in magnetic heterostructures with interface perpendicular magnetic anisotropy. Scientific Reports, 2015, 5, 14858.	3.3	33
17	Instabilities in the Vortex Matter and the Peak Effect Phenomenon. Physical Review Letters, 2007, 98, 027003.	7.8	31
18	Time-domain detection of current controlled magnetization damping in Pt/Ni81Fe19 bilayer and determination of Pt spin Hall angle. Applied Physics Letters, 2014, 105, .	3.3	29

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19	Dependence of Interfacial Dzyaloshinskii-Moriya Interaction on Layer Thicknesses in $\text{TaCoB}_3/\text{TaO}$ Heterostructures from Brillouin Light. <i>Physical Review Applied</i> , 2018, 9, .	3.3	20
20	Large amplitude microwave emission and reduced nonlinear phase noise in $\text{Co}_2\text{Fe}(\text{Ge}_{0.5}\text{Ga}_{0.5})$ Heusler alloy based pseudo spin valve nanopillars. <i>Applied Physics Letters</i> , 2011, 99, .	3.3	28
21	Pseudo-One-Dimensional Magnonic Crystals for High-Frequency Nanoscale Devices. <i>Physical Review Applied</i> , 2017, 8, .	3.8	26
22	Large Low-Frequency Fluctuations in the Velocity of a Driven Vortex Lattice in a Single Crystal of 2H-NbSe_2 Superconductor. <i>Physical Review Letters</i> , 2009, 103, 167001.	7.8	25
23	Spatial control of magnetic anisotropy for current induced domain wall injection in perpendicularly magnetized CoFeB/MgO nanostructures. <i>Applied Physics Letters</i> , 2012, 100, 192411.	3.3	16
24	Spin-texture driven reconfigurable magnonics in chains of connected $\text{Ni}_{80}\text{Fe}_{20}$ submicron dots. <i>Physical Review B</i> , 2020, 101, .	3.2	12
25	Mapping giant magnetic fields around dense solid plasmas by high-resolution magneto-optical microscopy. <i>Physical Review E</i> , 2008, 77, 046118.	2.1	9
26	Improved magnetic damping in CoFeB/MgO with an N-doped Ta underlayer investigated using the Brillouin light scattering technique. <i>RSC Advances</i> , 2015, 5, 57815-57819.	3.6	8
27	Extrinsic Spin-Orbit Coupling-Induced Large Modulation of Gilbert Damping Coefficient in CoFeB Thin Film on the Graphene Stack with Different Defect Density. <i>Journal of Physical Chemistry C</i> , 2017, 121, 17442-17449.	3.1	8
28	Flipping anisotropy and changing magnetization reversal modes in nano-confined Cobalt structures. <i>Journal of Magnetism and Magnetic Materials</i> , 2019, 476, 412-416.	2.3	8
29	Anisotropic spin-wave propagation in asymmetric width modulated $\text{Ni}_{80}\text{Fe}_{20}$ nanostripes. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2021, 272, 115385.	3.5	8
30	Tunable spin wave properties in $[\text{Co}/\text{Ni}_{80}\text{Fe}_{20}]_n$ multilayers with the number of bilayer repetition. <i>Journal Physics D: Applied Physics</i> , 2015, 48, 395001.	2.8	6
31	Spin-Orbit Effects in CoFeB/MgO Heterostructures with Heavy Metal Underlayers. <i>Spin</i> , 2016, 06, 1640002.	1.3	6
32	Efficient terahertz anti-reflection properties of metallic anti-dot structures. <i>Optics Letters</i> , 2017, 42, 1764.	3.3	6
33	All optical detection of picosecond spin-wave dynamics in 2D annular antidot lattice. <i>Journal Physics D: Applied Physics</i> , 2018, 51, 055004.	2.8	6
34	Mechanism of femtosecond laser induced ultrafast demagnetization in ultrathin film magnetic multilayers. <i>Journal of Materials Science</i> , 2022, 57, 6212-6222.	3.7	6
35	Driven weak to strong pinning crossover in a partially nanopatterned 2H-NbSe_2 single crystal. <i>Superconductor Science and Technology</i> , 2010, 23, 075002.	3.5	5
36	Controlled Domain-Wall Pair to Skyrmion Conversion in Typical Junction Geometry Useful for Magnetic Memory Devices. <i>ECS Journal of Solid State Science and Technology</i> , 2021, 10, 081002.	1.8	5

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37	X-ray photoelectron spectroscopy investigation of Ta/CoFeB/TaOx heterostructures. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2021, 272, 115367.	3.5	5
38	Metastable magnetization response of the vortex state due to patterned blind hole pins. Physica C: Superconductivity and Its Applications, 2010, 470, S817-S818.	1.2	4
39	Observation of angle-dependent mode conversion and mode hopping in 2D annular antidot lattice. Scientific Reports, 2019, 9, 12138.	3.3	4
40	Relativistic torques induced by currents in magnetic materials: physics and experiments. RSC Advances, 2018, 8, 25079-25093.	3.6	3
41	All-optical investigation of anisotropic spin pumping in W/CoFeB/W heterostructure. Journal of Magnetism and Magnetic Materials, 2020, 502, 166545.	2.3	3
42	Dzyaloshinskiiâ€Moriya Interaction induced hysteresis loop shift in perpendicularly magnetized triangular nanodot. Materials Letters, 2021, 303, 130492.	2.6	3
43	Observation of spectral narrowing and mode conversion in two-dimensional binary magnonic crystal. Journal of Magnetism and Magnetic Materials, 2020, 501, 166378.	2.3	2
44	Linewidth Variation of the Higher Harmonics in Spin-Torque Vortex Oscillators. IEEE Magnetics Letters, 2014, 5, 1-4.	1.1	1
45	Evidence of magneto-structural coupling affecting magnetic anisotropy in a cobalt nano-composite. Journal of Physics Condensed Matter, 2017, 29, 425804.	1.8	1
46	Magnetic Damping. , 2018, , 27-46.		1
47	Effects of nanodots shape and lattice constants on the spin wave dynamics of patterned permalloy dots. AIP Advances, 2019, 9, .	1.3	1
48	Effect of Ta capping layer on spin dynamics in Co50Fe50 thin films. Solid State Communications, 2022, 348-349, 114743.	1.9	1
49	Pinning regimes in the vortex solid and crossover between them in single crystals of 2H-NbSe2. Physica C: Superconductivity and Its Applications, 2007, 460-462, 710-711.	1.2	0
50	A compact low temperature scanning tunneling microscope. Journal of Physics: Conference Series, 2009, 150, 012007.	0.4	0
51	Evolution in the time series of vortex velocity fluctuations across different regimes of vortex flow. Physica C: Superconductivity and Its Applications, 2010, 470, S830-S831.	1.2	0
52	Electrical and Optical Control of Spin Dynamics. , 2018, , 101-126.		0
53	Summary and Future Direction. , 2018, , 153-156.		0
54	Experimental Techniques to Investigate Spin Dynamics. , 2018, , 47-82.		0

#	ARTICLE	IF	CITATIONS
55	Ultrafast magnetization dynamics in nanoscale two-dimensional Permalloy annular antidot lattices. , 2018, , .		0
56	Influence of variation of tungsten layer thickness on interfacial Dzyaloshinskiiâ€Moriya interaction in W/CoFeB/SiO2 heterostructures. Bulletin of Materials Science, 2021, 44, 1.	1.7	0
57	Enhanced magnetisation with increased chromium concentration in FeCoCr_xNi₂Al high-entropy alloy. Materials Science and Technology, 2022, 38, 12-18.	1.6	0
58	Magnetic Properties of Ultrathin As-deposited and Annealed Ta/CoFeB/TaO_x Heterostructures. IOP Conference Series: Materials Science and Engineering, 2022, 1219, 012007.	0.6	0