

Derang Cao

List of Publications by Year in descending order

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113
papers

2,103
citations

257357

24
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265120

42
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114
all docs

114
docs citations

114
times ranked

2403
citing authors

#	ARTICLE	IF	CITATIONS
1	Ultrahigh-frequency ferromagnetic properties of FeCoHf films deposited by gradient sputtering. Applied Physics Letters, 2008, 92, .	1.5	152
2	High saturation magnetization of $\hat{\text{Fe}}^3\text{-Fe}_2\text{O}_3$ nano-particles by a facile one-step synthesis approach. Scientific Reports, 2016, 6, 32360.	1.6	125
3	Improved Electrochemical Performance Based on Nanostructured $\text{SnS}_2@\text{CoS}_2@\text{rGO}$ Composite Anode for Sodium-Ion Batteries. Nano-Micro Letters, 2018, 10, 46.	14.4	96
4	Tunable Optical Mode Ferromagnetic Resonance in FeCoB/Ru/FeCoB Synthetic Antiferromagnetic Trilayers under Uniaxial Magnetic Anisotropy. Advanced Functional Materials, 2016, 26, 3738-3744.	7.8	75
5	Type-II pseudo-first-order phase transition induced electrocaloric effect in lead-free $\text{Bi}_{0.5}\text{Na}_{0.5}\text{TiO}_3\hat{\text{e}}\text{-}0.06\text{BaTiO}_3$ ceramics. Applied Physics Letters, 2017, 110, .	1.5	73
6	Reacquainting the Electrochemical Conversion Mechanism of FeS_2 Sodium-Ion Batteries by Operando Magnetometry. Journal of the American Chemical Society, 2021, 143, 12800-12808.	6.6	69
7	3D Ordered Porous Hybrid of ZnSe-doped Carbon with Anomalously High Na^+ Mobility and Ultrathin Solid Electrolyte Interphase for Sodium-Ion Batteries. Advanced Functional Materials, 2021, 31, 2106194.	7.8	66
8	Synthesis and magnetic properties of crystalline mesoporous CoFe_2O_4 with large specific surface area. Journal of Materials Chemistry, 2010, 20, 945-952.	6.7	64
9	An induction method to calculate the complex permeability of soft magnetic films without a reference sample. Review of Scientific Instruments, 2014, 85, 054705.	0.6	59
10	Nanosized MoSe_2 @Carbon Matrix: A Stable Host Material for the Highly Reversible Storage of Potassium and Aluminum Ions. ACS Applied Materials & Interfaces, 2019, 11, 44333-44341.	4.0	56
11	Driving ferromagnetic resonance frequency of FeCoB/PZN-PT multiferroic heterostructures to Ku-band via two-step climbing: composition gradient sputtering and magnetoelectric coupling. Scientific Reports, 2014, 4, 7393.	1.6	55
12	Construction of the POMOF@Polypyrrole Composite with Enhanced Ion Diffusion and Capacitive Contribution for High-Performance Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2021, 13, 6265-6275.	4.0	52
13	Self-Supported Amorphous $\text{SnO}_2/\text{TiO}_2$ Nanocomposite Films with Improved Electrochemical Performance for Lithium-Ion Batteries. Journal of the Electrochemical Society, 2019, 166, A3072-A3078.	1.3	45
14	Hierarchical $\text{SrTiO}_3/\text{NiFe}_2\text{O}_4$ composite nanostructures with excellent light response and magnetic performance synthesized toward enhanced photocatalytic activity. Nanoscale, 2015, 7, 14738-14746.	2.8	42
15	A novel method to fabricate $\text{CoFe}_2\text{O}_4/\text{SrFe}_{12}\text{O}_{19}$ composite ferrite nanofibers with enhanced exchange coupling effect. Nanoscale Research Letters, 2015, 10, 131.	3.1	40
16	Influence of structural evolution on electrocaloric effect in $\text{Bi}_{0.5}\text{Na}_{0.5}\text{TiO}_3\text{-SrTiO}_3$ ferroelectric ceramics. Journal of Applied Physics, 2018, 124, .	1.1	40
17	Engineering optical mode ferromagnetic resonance in FeCoB films with ultrathin Ru insertion. Scientific Reports, 2016, 6, 33349.	1.6	39
18	Inequivalence of direct and converse magnetoelectric coupling at electromechanical resonance. Applied Physics Letters, 2013, 103, 182905.	1.5	37

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19	Anomalous magnetic properties in Co ₃ O ₄ nanoparticles covered with polymer decomposition residues. Journal of Applied Physics, 2004, 95, 7420-7422.	1.1	36
20	RF Magnetic Properties of FeCoB/Al ₂ O ₃ /FeCoB Structure With Varied Al ₂ O ₃ Thickness. IEEE Transactions on Magnetics, 2011, 47, 3104-3107.	1.2	35
21	3D Heterogeneous Co ₃ O ₄ @Co ₃ S ₄ Nanoarrays Grown on Ni Foam as a Binder-Free Electrode for Lithium-Ion Batteries. ChemElectroChem, 2018, 5, 309-315.	1.7	35
22	Poly(vinylidene fluoride-trifluoroethylene)/cobalt ferrite composite films with a self-biased magnetoelectric effect for flexible AC magnetic sensors. Journal of Materials Science, 2021, 56, 9728-9740.	1.7	30
23	A Frequency Reconfigurable Microstrip Antenna Based on $(\text{Ba}, \text{Sr})\text{TiO}_3$ Substrate. IEEE Transactions on Antennas and Propagation, 2015, 63, 770-775.	3.1	27
24	Investigation on the structure and dynamic magnetic properties of FeCo films with different thicknesses by vector network analyzer and electron spin resonance spectroscopy. Journal of Alloys and Compounds, 2016, 688, 917-922.	2.8	27
25	Ultra-wide detectable concentration range of GMR biosensors using Fe ₃ O ₄ microspheres. Journal of Magnetism and Magnetic Materials, 2016, 417, 25-29.	1.0	27
26	Stress-Enhanced Interlayer Exchange Coupling and Optical-Mode FMR Frequency in Self-Bias FeCoB/Ru/FeCoB Trilayers. ACS Applied Materials & Interfaces, 2018, 10, 8853-8859.	4.0	27
27	Magnetic properties and microstructure investigation of electrodeposited FeNi/ITO films with different thickness. Journal of Alloys and Compounds, 2013, 581, 66-70.	2.8	26
28	Large E-field tunability of microwave ferromagnetic properties in Fe _{59.3} Co _{28.0} Hf _{12.7} /PZN-PT multiferroic composites. Journal of Applied Physics, 2014, 115, 17C723.	1.1	25
29	Tunable magnetoresistance devices based on multiferroic heterostructures. Journal of Applied Physics, 2011, 109, 07D913.	1.1	24
30	Nonmetal sulfur-doped coral-like cobalt ferrite nanoparticles with enhanced magnetic properties. Journal of Materials Chemistry C, 2016, 4, 951-957.	2.7	24
31	Tuning of magnetization dynamics in sputtered CoFeB thin film by gas pressure. Journal of Applied Physics, 2012, 111, .	1.1	23
32	A Nanocrystalline Fe ₂ O ₃ Film Anode Prepared by Pulsed Laser Deposition for Lithium-Ion Batteries. Nanoscale Research Letters, 2018, 13, 60.	3.1	23
33	High In-Plane Magnetic Anisotropy and Microwave Frequency Performance of Soft Magnetic (Fe ₅₀ Co ₅₀) _{1-x} (Al ₂ O ₃) _x Films Prepared by Modified Composition Gradient Sputtering. IEEE Transactions on Magnetics, 2011, 47, 3935-3938.	1.2	22
34	Microwave Frequency Performance and High Magnetic Anisotropy of $(\text{Fe}_{70}\text{Co}_{30})_{1-x}\text{B}_x$ Films Prepared by a Modified Composition Gradient Sputtering. IEEE Transactions on Magnetics, 2012, 48, 4313-4316.	1.2	20
35	Tuning high frequency magnetic properties and damping of FeGa, FeGaN and FeGaB thin films. AIP Advances, 2017, 7, .	0.6	19
36	Large E-field tunability of microwave ferromagnetic properties in Fe ₅₀ Co ₅₀ -Hf/lead zinc niobate-lead titanate multiferroic laminates. Journal of Applied Physics, 2013, 113, .	1.1	18

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37	Controllable magnetic and magnetostrictive properties of FeGa films electrodeposited on curvature substrates. <i>Applied Physics A: Materials Science and Processing</i> , 2016, 122, 1.	1.1	18
38	Thickness-dependent on the static magnetic properties and dynamic anisotropy of FeNi films with stripe domain structures. <i>Journal Physics D: Applied Physics</i> , 2018, 51, 025001.	1.3	17
39	Soft magnetism and microwave magnetic properties of Fe-Co-Hf films deposited by composition gradient sputtering. <i>Journal of Applied Physics</i> , 2011, 109, .	1.1	15
40	E-field tuning microwave frequency performance of Co ₂ FeSi/lead zinc niobate/lead titanate magnetolectric coupling composites. <i>Journal of Applied Physics</i> , 2012, 111, 07C705.	1.1	15
41	Stress competition and vortex magnetic anisotropy in FeCoAlO high-frequency soft magnetic films with gradient Al-O contents. <i>Journal of Applied Physics</i> , 2013, 113, 17A332.	1.1	15
42	Applied magnetic field angle dependence of the static and dynamic magnetic properties in FeCo films during the deposition. <i>Journal of Magnetism and Magnetic Materials</i> , 2016, 416, 208-212.	1.0	15
43	Synthesis, characterization and magnetic properties of NiFe ₂ xCe _x O ₄ nanoribbons by electrospinning. <i>Journal of Magnetism and Magnetic Materials</i> , 2017, 425, 37-42.	1.0	15
44	Investigation on the structures and magnetic properties of carbon or nitrogen doped cobalt ferrite nanoparticles. <i>Scientific Reports</i> , 2018, 8, 7916.	1.6	15
45	The effect of the particle size and magnetic moment of the Fe ₃ O ₄ superparamagnetic beads on the sensitivity of biodetection. <i>AIP Advances</i> , 2019, 9, .	0.6	15
46	Spindle-like Fe ₃ O ₄ nanoparticles for improving sensitivity and repeatability of giant magnetoresistance biosensors. <i>Journal of Applied Physics</i> , 2019, 126, .	1.1	14
47	Electrodeposition of FeCoCd films with in-plane uniaxial magnetic anisotropy for microwave applications. <i>Journal of Applied Physics</i> , 2014, 115, 17A307.	1.1	13
48	Synthesis, nanostructure and magnetic properties of FeCo-reduced graphene oxide composite films by one-step electrodeposition. <i>Thin Solid Films</i> , 2015, 597, 1-6.	0.8	12
49	High-temperature tunneling electroresistance in metal/ferroelectric/semiconductor tunnel junctions. <i>Applied Physics Letters</i> , 2017, 111, .	1.5	12
50	The influence of bias magnetization of nanoparticles on GMR sensor signal and sensitivity for the ultra-low concentration detection. <i>Journal of Magnetism and Magnetic Materials</i> , 2018, 453, 132-136.	1.0	12
51	Dual-mode ferromagnetic resonance in an FeCoB/Ru/FeCoB synthetic antiferromagnet with uniaxial anisotropy. <i>Applied Physics Letters</i> , 2018, 112, .	1.5	12
52	Synaptic memory devices from CoO/Nb:SrTiO ₃ junction. <i>Royal Society Open Science</i> , 2019, 6, 181098.	1.1	12
53	Tuning the ferromagnetic resonance frequency of soft magnetic film by patterned permalloy micro-stripes with stripe-domain. <i>Journal of Magnetism and Magnetic Materials</i> , 2018, 457, 46-51.	1.0	11
54	A coplanar waveguide-fed flexible antenna for ultra-wideband applications. <i>International Journal of RF and Microwave Computer-Aided Engineering</i> , 2020, 30, e22258.	0.8	11

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55	Influence of Thickness on Magnetic Properties and Microwave Characteristics of NiFe/IrMn/NiFe Trilayers. IEEE Transactions on Magnetics, 2011, 47, 3486-3489.	1.2	10
56	A facile strategy for synthesis of spinel ferrite nano-granules and their potential applications. RSC Advances, 2016, 6, 66795-66802.	1.7	10
57	Ultrahigh Frequency and Anti-Interference Optical-Mode Resonance with Biquadratic Coupled FeCoB/Ru/FeCoB Trilayers. ACS Applied Materials & Interfaces, 2019, 11, 48230-48238.	4.0	10
58	Magnetic Carbon Nanofoams. Journal of Nanoscience and Nanotechnology, 2009, 9, 1133-1136.	0.9	9
59	Influence of Sputtering Gas Pressure on High-Frequency Soft Magnetic Properties of FeCoN Thin Film. IEEE Transactions on Magnetics, 2011, 47, 3921-3923.	1.2	9
60	The influence of magnetic heat treatment on morphology, structure, magnetic properties of Fe-Co-P alloy films. Applied Physics A: Materials Science and Processing, 2014, 115, 359-363.	1.1	8
61	Influence of the phases structure on the acoustic and optical modes ferromagnetic resonance of FeNi stripe domain films. Journal of Magnetism and Magnetic Materials, 2019, 475, 103-107.	1.0	8
62	Evaluation of Metglas/polyvinylidene fluoride magnetoelectric bilayer composites for flexible in-plane resonant magnetic sensors. Journal Physics D: Applied Physics, 2021, 54, 095003.	1.3	8
63	Influence of Interlayer Thickness on High-Frequency Magnetic Properties of FeCoSiN/AlO/FeCoSiN Trilayers. IEEE Transactions on Magnetics, 2011, 47, 3100-3103.	1.2	7
64	Influence of surface pinning in the domain on the magnetization dynamics in permalloy striped domain films. Journal of Alloys and Compounds, 2021, 869, 159327.	2.8	7
65	Microwave Frequency Performance and High Magnetic Anisotropy of Nanocrystalline Fe ₇₀ Co ₃₀ -B Films Prepared by Composition Gradient Sputtering. Journal of Nanoscience and Nanotechnology, 2013, 13, 1091-1094.	0.9	6
66	Quasi magnetic isotropy and microwave performance of FeCoB multilayer laminated by uniaxial anisotropic layers. Journal of Applied Physics, 2014, 115, 17A310.	1.1	6
67	Evolutions of acoustic and optical mode resonances in the spin reorientation Permalloy film. Journal of Applied Physics, 2019, 126, .	1.1	6
68	AC/DC dual-mode magnetoelectric sensor with high magnetic field resolution and broad operating bandwidth. AIP Advances, 2021, 11, .	0.6	6
69	A working-point perturbation method for the magnetoelectric sensor to measure DC to ultralow-frequency-AC weak magnetic fields simultaneously. AIP Advances, 2021, 11, .	0.6	6
70	Tunable Static and High-Frequency Magnetic Properties of FeCo Films by an Applied Magnetic Field. Science of Advanced Materials, 2016, 8, 1061-1065.	0.1	6
71	Generation of terahertz transients from $Co_{2-x}Mn_x$-Heusler-alloy/normal-metal nanobilayers excited by femtosecond optical pulses. Physical Review Research, 2021, 3, .	1.3	6
72	Estimating the In-Plane Magnetic Anisotropy and Saturation Magnetization of Magnetic Films. IEEE Transactions on Magnetics, 2017, 53, 1-6.	1.2	5

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73	A compact slot antenna configuration for ultrawideband (UWB) terminals and mobile phones. International Journal of RF and Microwave Computer-Aided Engineering, 2018, 28, e21400.	0.8	4
74	[(FeCoB/Ru/FeCoB)/ZnO] _n superlattice multilayer: A real optical mode ferromagnetic resonance thick-film. Applied Physics Letters, 2020, 116, .	1.5	4
75	Magnetic moment configuration: One of decisive factors to enhance the optical mode resonance in interlayer exchange coupled trilayers. Journal of Alloys and Compounds, 2021, 875, 159881.	2.8	4
76	Microwave excitations and hysteretic magnetization dynamics of stripe domain films. Journal of Magnetism and Magnetic Materials, 2022, 547, 168939.	1.0	4
77	Fabrication and high frequency magnetic characterization of FeCoAl ternary thin films. Physica Status Solidi (A) Applications and Materials Science, 2007, 204, 4129-4132.	0.8	3
78	Tunable Microwave Frequency Performance of Nanocomposite Co ₂ MnSi/PZN-PT Magnetolectric Coupling Structure. Journal of Nanoscience and Nanotechnology, 2013, 13, 1182-1185.	0.9	3
79	Film Thickness Gradient-Induced Magnetic Anisotropy and Ferromagnetic Resonance in Fe ₅₆ Co ₂₄ B ₂₀ Amorphous Films Prepared by Pulse Laser Deposition. IEEE Transactions on Magnetics, 2015, 51, 1-3.	1.2	3
80	Static and Dynamic Magnetic Properties of FeGa/FeNi (FeNi/FeGa) Bilayer Structures. Coatings, 2020, 10, 383.	1.2	3
81	Orientation control of optical mode ferromagnetic resonance: From uniaxial to omni-directional. Applied Physics Letters, 2021, 118, .	1.5	3
82	Interfacial Control via Reversible Ionic Motion in Battery-Like Magnetic Tunnel Junctions. Advanced Electronic Materials, 2021, 7, 2100512.	2.6	3
83	Large Field-Induced Magnetocaloric Effect in Ni ₄₃ Mn _{46-x} V _x Sn ₁₁ Heusler Alloys. IEEE Transactions on Magnetics, 2012, 48, 3985-3988.	1.2	2
84	X-Ray Absorption Spectra and Self-Bias Ferromagnetic Resonance of FeCoB Films Prepared by Composition Gradient Sputtering. IEEE Transactions on Magnetics, 2015, 51, 1-4.	1.2	2
85	Magnetic Properties and Microstructure Investigation of FeNi Films With Step-Height by Nano-MOKE. IEEE Transactions on Magnetics, 2015, 51, 1-4.	1.2	2
86	Preparation and influence of pH on the dynamic magnetic property of magnetic FeCoC films. Materials Chemistry and Physics, 2016, 177, 236-241.	2.0	2
87	Band-notched ultrawide band antenna loaded with ferrite slab. AIP Advances, 2017, 7, .	0.6	2
88	Electric Field Tuning Ferromagnetic Resonance Frequency Shift in Oblique Sputtered Fe ₄₂ Co ₄₆ Hf ₁₂ /PZN-PT Multiferroic Heterostructures. IEEE Transactions on Magnetics, 2017, 53, 1-4.	1.2	2
89	Tuning microwave magnetic properties of composition gradient FeCoB/Ru/FeCoB trilayer films. Journal of Magnetism and Magnetic Materials, 2018, 458, 200-203.	1.0	2
90	Electric Field Assisted Improving the Quality and Magnetic Properties of Electrodeposited FeCo Films. Journal of Superconductivity and Novel Magnetism, 2022, 35, 345-350.	0.8	2

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91	Perpendicular magnetization anisotropy induced dynamical coherence reduction in stripe domain film. Journal of Physics Condensed Matter, 2022, 34, 155802.	0.7	2
92	3D Ordered Porous Hybrid of ZnSe/N-doped Carbon with Anomalously High Na ⁺ Mobility and Ultrathin Solid Electrolyte Interphase for Sodium-ion Batteries (Adv. Funct. Mater.) Tj ETQq0 0 0 rgB7. #Overlock 10 Tf 50	0.7	10
93	Annealing enhanced ferromagnetic resonance of thickness-dependent FeGa films. Applied Physics Letters, 2022, 120, 202402.	1.5	2
94	Yolk-shell Spindle-shaped FeSe ₂ @N-doped Carbon Decorated on rGO with High-rate Capability and Cycling Stability in a Wide Temperature Range for Sodium Ion Batteries**. ChemElectroChem, 2022, 9, .	1.7	2
95	High-frequency ferromagnetic properties of FeCoZr nanocrystalline films. Physica Status Solidi C: Current Topics in Solid State Physics, 2007, 4, 4593-4597.	0.8	1
96	The Temperature-Dependent Microstructure and Magnetic Parameters of FeCo Films. Journal of the Electrochemical Society, 2017, 164, D154-D158.	1.3	1
97	Static and Dynamic Properties of Nanowire/Permalloy Composite Films. IEEE Magnetics Letters, 2017, 8, 1-5.	0.6	1
98	Self-biased microwave ferromagnetic performance of patterned Ni ₈₀ Fe ₂₀ thin films. AIP Advances, 2017, 7, 056301.	0.6	1
99	A CPW-Fed implantable antenna operating at ISM band. , 2017, , .		1
100	Study on Dielectric, Ferroelectric, and Magnetic Properties of 0.5 LaFe _{0.5} Co _{0.5} O ₃ -Bi ₄ Ti ₃ O ₁₂ Multiferroic Thin Films. IEEE Transactions on Magnetics, 2018, 54, 1-5.	1.2	1
101	Spin-transfer torque oscillator in magnetic tunneling junction with short-wavelength magnon excitation. AIP Advances, 2018, 8, .	0.6	1
102	Phase formation and electrocaloric effect in nonstoichiometric 0.94Bi _{0.5+x} Na _{0.5} Ti ₃ O ₃ -0.06BaTiO ₃ ceramics. Journal of Materials Science: Materials in Electronics, 2019, 30, 3465-3471.	1.1	1
103	Coherent GHz lattice and magnetization excitations in thin epitaxial Ag/Fe/Cr/Fe films. Physical Review B, 2021, 104, .	1.1	1
104	Enhancement of high-frequency performances by Al ₂ O ₃ interlayer in FeCoHf/Al ₂ O ₃ /FeCoHf trilayers. AIP Advances, 2022, 12, 055224.	0.6	1
105	Enhancement of high-frequency permeability of FeCoHf films by surface oxidation. , 2008, , .		0
106	Self-Bias Ferromagnetic Resonance and Quasi-Magnetic Isotropy of (FeCoB/MgO) ₆ Multilayers Prepared by Composition Gradient Sputtering. IEEE Transactions on Magnetics, 2015, 51, 1-3.	1.2	0
107	A directional implantable antenna operating at ISM band. , 2017, , .		0
108	Microstructure and Electrochemical Performance of Co ₃ O ₄ Nanopillars Calcinated at Various Temperatures. Journal of Nanoscience and Nanotechnology, 2018, 18, 1887-1892.	0.9	0

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109	Electric field tunable high-frequency performance in high-resistivity Fe _{0.5} Co _{0.5} -MgO/lead zinc niobate-lead titanate nanogranular film multiferroic heterostructures. <i>Thin Solid Films</i> , 2019, 686, 137425.	0.8	0
110	Large tunability of frequency in Fe _{0.5} Co _{0.5} -ZnO/PZN-PT nanogranular films with high resistivity. <i>Journal of Magnetism and Magnetic Materials</i> , 2019, 483, 48-53.	1.0	0
111	A Dual-Band Helix Antenna Operating at HBC Band. , 2020, , .		0
112	Multiple order spin-wave resonance in composition gradient sputtering FeCoB thin films. <i>AIP Advances</i> , 2021, 11, 075207.	0.6	0
113	Interlayer Coupling and High-Frequency Performance in Magnetic Anisotropic FeCoB/Hf/FeCoB Trilayers with Various Hf Thicknesses. <i>Magnetochemistry</i> , 2022, 8, 65.	1.0	0