Hao Zeng

List of Publications by Year
in descending order

67 papers	9,837 citations	279487 23 h-index	102304 66 g-index
71 all docs	71 docs citations	71 times ranked	13955 citing authors

#	Article	IF	Citations
1	Monodisperse MFe2O4(M = Fe, Co, Mn) Nanoparticles. Journal of the American Chemical Society, 2004, 126, 273-279.	6.6	3,237
2	Size-Controlled Synthesis of Magnetite Nanoparticles. Journal of the American Chemical Society, 2002, 124, 8204-8205.	6.6	2,571
3	Remote control of ion channels and neurons through magnetic-field heating of nanoparticles. Nature Nanotechnology, 2010, 5, 602-606.	15.6	623
4	Strong Covalency-Induced Recombination Centers in Perovskite Solar Cell Material CH₃NH₃PbI₃. Journal of the American Chemical Society, 2014, 136, 14570-14575.	6.6	462
5	Syntheses, Properties, and Potential Applications of Multicomponent Magnetic Nanoparticles. Advanced Functional Materials, 2008, 18, 391-400.	7.8	355
6	Enhanced valley splitting in monolayer WSe2 due to magnetic exchange field. Nature Nanotechnology, 2017, 12, 757-762.	15.6	340
7	Shape-Controlled Synthesis and Shape-Induced Texture of MnFe2O4 Nanoparticles. Journal of the American Chemical Society, 2004, 126, 11458-11459.	6.6	335
8	Deciphering chemical order/disorder and material properties at the single-atom level. Nature, 2017, 542, 75-79.	13.7	243
9	Observing crystal nucleation in four dimensions using atomic electron tomography. Nature, 2019, 570, 500-503.	13.7	219
10	Chalcogenide perovskites â€" an emerging class of ionic semiconductors. Nano Energy, 2016, 22, 129-135.	8.2	174
11	Giant valley splitting in monolayer WS2 by magnetic proximity effect. Nature Communications, 2019, 10, 4163.	5.8	169
12	Maximizing Specific Loss Power for Magnetic Hyperthermia by Hardâ€"Soft Mixed Ferrites. Small, 2018, 14, e1800135.	5.2	91
13	Realization of BaZrS3 chalcogenide perovskite thin films for optoelectronics. Nano Energy, 2020, 68, 104317.	8.2	83
14	Fe₃Se₄ Nanostructures with Giant Coercivity Synthesized by Solution Chemistry. Chemistry of Materials, 2011, 23, 3769-3774.	3.2	75
15	FePt nanodot arrays with perpendicular easy axis, large coercivity, and extremely high density. Applied Physics Letters, 2007, 91, .	1.5	69
16	Stability and Band-Gap Tuning of the Chalcogenide Perovskite <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>BaZrS</mml:mi></mml:mrow><mml:mrow><mml:mn>3</mml:mn>< in Raman and Optical Investigations at High Pressures. Physical Review Applied, 2017, 8, .	1.5	65
17	Room temperature ferromagnetism in Mn-doped CdS nanorods. Applied Physics Letters, 2008, 93, .	1.5	61
18	Ti-Alloying of BaZrS₃ Chalcogenide Perovskite for Photovoltaics. ACS Omega, 2020, 5, 18579-18583.	1.6	54

#	ARTICLE	IF	CITATIONS
19	Chalcogenide perovskite BaZrS3 thin-film electronic and optoelectronic devices by low temperature processing. Nano Energy, 2021, 85, 105959.	8.2	46
20	Large T1 contrast enhancement using superparamagnetic nanoparticles in ultra-low field MRI. Scientific Reports, 2018, 8, 11863.	1.6	43
21	Growth mechanism of largescale MoS₂monolayer by sulfurization of MoO₃film. Materials Research Express, 2016, 3, 075009.	0.8	42
22	Magnetotransport in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mi mathvariant="normal">Fe</mml:mi><mml:mn>3</mml:mn></mml:msub><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mn>4</mml:mn></mml:msub></mml:mrow></mml:math>nanoparticle arrays dominated by noncollinear surface spins. Physical Review B, 2007, 76, .	1.1	31
23	Corn-like, recoverable Î³-Fe2O3@SiO2@TiO2 photocatalyst induced by magnetic dipole interactions. Scientific Reports, 2017, 7, 6960.	1.6	31
24	Covalent 2D Cr₂Te₃ ferromagnet. Materials Research Letters, 2021, 9, 205-212.	4.1	25
25	Defect tolerance in chalcogenide perovskite photovoltaic material BaZrS3. Science China Materials, 2021, 64, 2976-2986.	3.5	25
26	Visualizing Van der Waals Epitaxial Growth of 2D Heterostructures. Advanced Materials, 2021, 33, e2105079.	11.1	24
27	High-Fidelity Transfer of Chemical Vapor Deposition Grown 2D Transition Metal Dichalcogenides via Substrate Decoupling and Polymer/Small Molecule Composite. ACS Nano, 2020, 14, 7370-7379.	7.3	22
28	Probing magnetic-proximity-effect enlarged valley splitting in monolayer WSe2 by photoluminescence. Nano Research, 2018, 11, 6252-6259.	5.8	20
29	Dative Epitaxy of Commensurate Monocrystalline Covalent van der Waals MoirÃ© Supercrystal. Advanced Materials, 2022, 34, e2200117.	11.1	20
30	Synthesis of monodisperse CdS nanorods catalyzed by Au nanoparticles. Nano Research, 2008, 1, 314-320.	5.8	19
31	Large room-temperature valley polarization by valley-selective switching of exciton ground state. Physical Review B, 2020, 101, .	1.1	18
32	Self-biased magnetoelectric switching at room temperature in three-phase ferroelectricâ€"antiferromagneticâ€"ferrimagnetic nanocomposites. Nature Electronics, 2021, 4, 333-341.	13.1	18
33	Enhanced photocatalytic properties of Nâ€"P co-doped TiO2 nanosheets with {001} facets. Rare Metals, 2016, 35, 940-947.	3.6	17
34	Controlled fractal growth of transition metal dichalcogenides. Nanoscale, 2019, 11, 17065-17072.	2.8	15
35	Tuning dipolar effects on magnetic hyperthermia of Zn0.3Fe2.7O4/SiO2 nanoparticles by silica shell. Journal of Magnetism and Magnetic Materials, 2021, 521, 167483.	1.0	13
36	Dynamic Refractive Indexâ€Matching for Adaptive Thermoresponsive Smart Windows. Small, 2022, 18, .	5.2	13

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37	Emergent order in the spin-frustrated system<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>Dy</mml:mtext></mml:mrow><mml:mi>x</mml:mi></mml:msub Physical Review B, 2010, 81, .	1.1	12
38	Inversed tunneling magnetoresistance in hybrid FePt/Fe3O4 core/shell nanoparticles systems. Journal of Applied Physics, 2010, 108, .	1.1	12
39	Octahedron rotation evolution in 2D perovskites and its impact on optoelectronic properties: the case of Baâ€“Zrâ€“S chalcogenides. Materials Horizons, 2020, 7, 2985-2993.	6.4	11
40	Intrinsic Valley Splitting and Direct-to-Indirect Band Gap Transition in Monolayer HfZrSiCO₂. Journal of Physical Chemistry Letters, 2022, 13, 5204-5212.	2.1	11
41	Controlling valley splitting and polarization of dark- and bi-excitons in monolayer WS 2 by a tilted magnetic field. 2D Materials, 2019, 6, 045014.	2.0	10
42	Ultrathin epitaxial NbN superconducting films with high upper critical field grown at low temperature. Materials Research Letters, 2021, 9, 336-342.	4.1	10
43	Nanocavity induced light concentration for energy efficient heat assisted magnetic recording media. Nano Energy, 2018, 50, 750-755.	8.2	9
44	Superconducting niobium nitride: a perspective from processing, microstructure, and superconducting property for single photon detectors. Journal of Physics Condensed Matter, 2022, 34, 374003.	0.7	9
45	Giant positive magnetoresistance in Co@CoO nanoparticle arrays. Journal of Applied Physics, 2009, 105, 063920.	1.1	8
46	Spatial mapping of exciton transition energy and strain in composition graded WS2(1âˆ’x)Se2x monolayer. Journal of Applied Physics, 2020, 128, 124304.	1.1	8
47	Improved magnetostriction in Galfenol alloys by aligning crystal growth direction along easy magnetization axis. Scientific Reports, 2020, 10, 20055.	1.6	8
48	Magnetic-gateable valley exciton emission. Npj Computational Materials, 2020, 6, .	3.5	7
49	Bone Tumor Suppression in Rabbits by Hyperthermia below the Clinical Safety Limit Using Aligned Magnetic Bone Cement. Small, 2022, 18, e2104626.	5.2	7
50	CoPt Antidot Arrays Fabricated With Dry-Etching Using AAO Templates. IEEE Transactions on Magnetics, 2016, 52, 1-5.	1.2	5
51	Correlation between thickness dependent nanoscale structural chemistry and superconducting properties of ultrathin epitaxial NbN films. Materials Chemistry and Physics, 2022, 282, 125962.	2.0	5
52	Transition metal dichalcogenide graded alloy monolayers by chemical vapor deposition and comparison to 2D Ising model. Journal of Chemical Physics, 2022, 156, 134704.	1.2	5
53	The Dependence of Magnetic Properties on Diameters of One-Dimensional Nickel Nanostructures. IEEE Transactions on Magnetics, 2014, 50, 1-4.	1.2	4
54	The Morphology and Magnetic Properties of FePt Antidot Arrays on Porous Anodic Alumina Templates. IEEE Transactions on Magnetics, 2014, 50, 1-4.	1.2	4

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55	Growth of atomically thin MoS2 flakes on high-Îº substrates by chemical vapor deposition. Journal of Materials Science, 2018, 53, 4262-4273.	1.7	4
56	Synthesis and Characterization of Copper-Iron Nitride Thin Films. MRS Advances, 2016, 1, 203-208.	0.5	3
57	Effects of Acetone Vapor on the Exciton Band Photoluminescence Emission from Single- and Few-Layer WS2 on Template-Stripped Gold. Sensors, 2019, 19, 1913.	2.1	3
58	Chalcogenide Perovskite YScS₃ as a Potential p-Type Transparent Conducting Material. Chinese Physics Letters, 2020, 37, 097201.	1.3	2
59	Thermoelectric probe of defect state induced by ionic liquid gating in vanadium dioxide. Applied Physics Letters, 2020, 116, 193502.	1.5	2
60	Generating and Capturing Secondary Hot Carriers in Monolayer Tungsten Dichalcogenides. Journal of Physical Chemistry Letters, 2022, 13, 5703-5710.	2.1	2
61	Atomic Resolution Tomography of Magnetically Anisotropic FePt Nanoparticles. Microscopy and Microanalysis, 2014, 20, 804-805.	0.2	1
62	Pattern transfer to GaAs substrates and epitaxial growth of GaAs nanostructures using self-organized porous templates. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2016, 34, .	0.6	1
63	Experimental Observation of van Hove Singularities in Quasiâ€•1D MoO₂ Nanotubes. Advanced Electronic Materials, 2019, 5, 1900005.	2.6	1
64	Signature of electron-magnon Umklapp scattering in L10 FePt probed by thermoelectric measurements. Applied Physics Letters, 2021, 119, 182402.	1.5	1
65	Response to Comment on â€œInversed tunneling magnetoresistance in hybrid FePt/Fe3O4 core/shell nanoparticles systemsâ€•[J. Appl. Phys. 109, 086101 (2011)]. Journal of Applied Physics, 2011, 109, 086102.	1.1	0
66	Spin Transport and Magnetism in Low-Dimensional Materials. Advances in Condensed Matter Physics, 2017, 2017, 1-2.	0.4	0
67	Data Acquisition in 4D Atomic Electron Tomography. Microscopy and Microanalysis, 2019, 25, 1816-1817.	0.2	0