Huairuo Zhang

List of Publications by Year
in descending order

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Version: 2024-02-01

80 papers	4,838 citations	117625 34 h-index	91884 69 g-index
82 all docs	82 docs citations	82 times ranked	7286 citing authors

#	Article	IF	Citations
1	Are 2D Interfaces Really Flat?. ACS Nano, 2022, 16, 5316-5324.	14.6	15
2	High-Quality All-Inorganic Perovskite CsPbBr₃ Microsheet Crystals as Low-Loss Subwavelength Excitonâ€“Polariton Waveguides. Nano Letters, 2021, 21, 1822-1830.	9.1	17
3	Facile route to bulk ultrafine-grain steels for high strength and ductility. Nature, 2021, 590, 262-267.	27.8	98
4	A new electron diffraction approach for structure refinement applied to Ca₃Mn₂O₇. Acta Crystallographica Section A: Foundations and Advances, 2021, 77, 196-207.	0.1	2
5	Tuning the hysteresis of a metal-insulator transition via lattice compatibility. Nature Communications, 2020, 11, 3539.	12.8	38
6	On-the-fly closed-loop materials discovery via Bayesian active learning. Nature Communications, 2020, 11, 5966.	12.8	167
7	Ultrahigh thermal isolation across heterogeneously layered two-dimensional materials. Science Advances, 2019, 5, eaax1325.	10.3	149
8	MoTe₂ Lateral Homojunction Field-Effect Transistors Fabricated using Flux-Controlled Phase Engineering. ACS Nano, 2019, 13, 8035-8046.	14.6	75
9	Thermal Stability of Titanium Contacts to MoS₂. ACS Applied Materials & Interfaces, 2019, 11, 35389-35393.	8.0	17
10	Complementary Black Phosphorus Tunneling Field-Effect Transistors. ACS Nano, 2019, 13, 377-385.	14.6	103
11	Electric-field induced structural transition in vertical MoTe2- and Mo1â€“xWxTe2-based resistive memories. Nature Materials, 2019, 18, 55-61.	27.5	300
12	Negative thermal expansion and magnetocaloric effect in Mn-Co-Ge-In thin films. Applied Physics Letters, 2018, 112, .	3.3	6
13	Pt Nanoparticles Loaded on W₁₈O₄₉ Nanocablesâ€“rGO Nanocomposite as a Highly Active and Durable Catalyst for Methanol Electro-Oxidation. ACS Omega, 2018, 3, 16850-16857.	3.5	13
14	Towards superconductivity in p-type delta-doped Si/Al/Si heterostructures. AIP Advances, 2018, 8, 075329.	1.3	5
15	Electric-Field Induced Reversible Switching of the Magnetic Easy Axis in Co/BiFeO₃ on SrTiO₃. Nano Letters, 2017, 17, 2825-2832.	9.1	33
16	How to extract reliable core-volume fractions from core-shell polycrystalline microstructures using cross sectional TEM micrographs. Journal of the European Ceramic Society, 2017, 37, 2795-2801.	5.7	3
17	Microwave properties and structure of Laâ€“Tiâ€“Siâ€“Bâ€“O glass-ceramics for applications in GHz electronics. Journal of the European Ceramic Society, 2017, 37, 2137-2142.	5.7	11
18	Protocols for the Fabrication, Characterization, and Optimization of n-Type Thermoelectric Ceramic Oxides. Chemistry of Materials, 2017, 29, 265-280.	6.7	35

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19	Magnetic two-dimensional electron gas at the manganite-buffered <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>LaAl</mml:mi><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mn>3</mml:mn></mml:msub><mml:mo>/</mml:mo><mml:mi>SrTi</mml:mi><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:mrow></mml:math> interface. Physical Review B, 2017, 96, .	3.2	36
20	Tuning the magnetism of epitaxial cobalt oxide thin films by electron beam irradiation. Physical Review Materials, 2017, 1, .	2.4	14
21	A conductive scanning study of La0.67Sr0.33MnO3/Nb:SrTiO3 hetero-junction. Applied Physics Letters, 2016, 108, .	3.3	3
22	Controlling mixed conductivity in Na_{1/2}Bi_{1/2}TiO₃ using A-site non-stoichiometry and Nb-donor doping. Journal of Materials Chemistry C, 2016, 4, 5779-5786.	5.5	77
23	The effect of substrate clamping on the paraelectric to antiferroelectric phase transition in Nd-doped BiFeO3 thin films. Thin Solid Films, 2016, 616, 767-772.	1.8	9
24	High Ionic Conductivity with Low Degradation in A-Site Strontium-Doped Nonstoichiometric Sodium Bismuth Titanate Perovskite. Chemistry of Materials, 2016, 28, 5269-5273.	6.7	61
25	Evidence for lattice-polarization-enhanced field effects at the SrTiO3-based heterointerface. Scientific Reports, 2016, 6, 22418.	3.3	7
26	Microstructure Evolution of In Situ Pulsedâ€Laser Crystallized Pb(Zr_{0.52}Ti_{0.48})O₃ Thin Films. Journal of the American Ceramic Society, 2016, 99, 43-50.	3.8	14
27	Coherent Growth of Î±-Fe₂O₃in Ti and Nd Co-doped BiFeO₃Thin Films. Materials Research Letters, 2016, 4, 168-173.	8.7	2
28	High-Figure-of-Merit Thermoelectric La-Doped A-Site-Deficient SrTiO₃ Ceramics. Chemistry of Materials, 2016, 28, 925-935.	6.7	172
29	Stabilisation of Fe2O3-rich Perovskite Nanophase in Epitaxial Rare-earth Doped BiFeO3 Films. Scientific Reports, 2015, 5, 13066.	3.3	9
30	Dramatic Influence of A-Site Nonstoichiometry on the Electrical Conductivity and Conduction Mechanisms in the Perovskite Oxide Na_{0.5}Bi_{0.5}TiO₃. Chemistry of Materials, 2015, 27, 629-634.	6.7	210
31	Insight into the Structure and Functional Application of the Sr0.95Ce0.05CoO3â^Î´ Cathode for Solid Oxide Fuel Cells. Inorganic Chemistry, 2015, 54, 3477-3484.	4.0	24
32	Domain pinning near a single-grain boundary in tetragonal and rhombohedral lead zirconate titanate films. Physical Review B, 2015, 91, .	3.2	31
33	Domain Wall Motion Across Various Grain Boundaries in Ferroelectric Thin Films. Journal of the American Ceramic Society, 2015, 98, 1848-1857.	3.8	42
34	A family of oxide ion conductors based on the ferroelectric perovskite Na0.5Bi0.5TiO3. Nature Materials, 2014, 13, 31-35.	27.5	715
35	Piezoelectrics: Influence of a Single Grain Boundary on Domain Wall Motion in Ferroelectrics (Adv.) Tj ETQq1 1 0.784314 rgBT /Overlock	14.9	3
36	Phase-separation-enhanced plasticity in a Cu47.2Zr46.5Al5.5Nb0.8 bulk metallic glass. Scripta Materialia, 2014, 72-73, 47-50.	5.2	38

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37	Influence of a Single Grain Boundary on Domain Wall Motion in Ferroelectrics. Advanced Functional Materials, 2014, 24, 1409-1417.	14.9	66
38	Anomalous magnetism in strained La1-xSrxCoO3 epitaxial films (0 â‰¤ x â‰¤ 0.5). Scientific Reports, 2014, 4, 6206.	3.3	33
39	Electron irradiation damage and color centers of MgO nanocube. Nuclear Instruments & Methods in Physics Research B, 2013, 316, 137-143.	1.4	10
40	Local thickness measurement through scattering contrast and electron energy-loss spectroscopy. Micron, 2012, 43, 8-15.	2.2	75
41	Single pass laser joining of Inconel 718 superalloy with filler. Materials Science and Technology, 2011, 27, 268-274.	1.6	9
42	EELS Investigation of the Formulas for Inelastic Mean Free Path. Microscopy and Microanalysis, 2011, 17, 1466-1467.	0.4	2
43	TEM analysis of diffusion brazement microstructure in a Ni3Al-based intermetallic alloy. Journal of Materials Science, 2011, 46, 429-437.	3.7	7
44	Atomic-size effect on the microstructural properties of Ni2FeGa. Acta Materialia, 2011, 59, 1249-1258.	7.9	17
45	Electron Irradiation Damage of MgO Nanocube. Microscopy and Microanalysis, 2010, 16, 1794-1795.	0.4	1
46	Local Thickness Measurement in TEM. Microscopy and Microanalysis, 2010, 16, 344-345.	0.4	6
47	Cr-rich nanosize precipitates in a standard heat-treated Inconel 738 superalloy. Philosophical Magazine, 2010, 90, 765-782.	1.6	38
48	Miscibility and Alignment Effects of Mixed Monolayer Cyanobiphenyl Liquidâ€Crystalâ€Capped Gold Nanoparticles in Nematic Cyanobiphenyl Liquid Crystal Hosts. ChemPhysChem, 2009, 10, 1211-1218.	2.1	84
49	Improvement in Laser Weldability of INCONEL 738 Superalloy through Microstructural Modification. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2009, 40, 2694-2704.	2.2	53
50	Non-equilibrium liquid phase dissolution ofÎ´phase precipitates in a nickel-based superalloy. Philosophical Magazine Letters, 2009, 89, 787-794.	1.2	11
51	TEM analysis of Crâ€“Moâ€“Wâ€“B phase in a DS nickel based superalloy. Journal of Materials Science, 2008, 43, 6024-6028.	3.7	26
52	Analytical Electron Microscopy Study of Boron-Rich Grain Boundary Microconstituent in Directionally Solidified RENE 80 Superalloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2008, 39, 2799-2803.	2.2	26
53	Nanosize boride particles in heat-treated nickel base superalloys. Scripta Materialia, 2008, 58, 167-170.	5.2	63
54	Martensitic transformation ofNi2FeGaferromagnetic shape-memory alloy studied via transmission electron microscopy and electron energy-loss spectroscopy. Physical Review B, 2008, 77, .	3.2	24

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55	A new route to single crystalline vanadium dioxide nanoflakes via thermal reduction. Journal of Materials Research, 2007, 22, 1921-1926.	2.6	15
56	Wet chemical synthesis of gold nanoparticles using silver seeds: a shape control from nanorods to hollow spherical nanoparticles. Nanotechnology, 2007, 18, 115608.	2.6	54
57	Mesoscale Organization of Nearly Monodisperse Flowerlike Ceria Microspheres. Journal of Physical Chemistry B, 2006, 110, 13445-13452.	2.6	244
58	Magnetic properties and microstructure of the dual-phase nanocomposite magnet Sm3(Fe,Ti)29Nx/Î±-Fe. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2006, 433, 90-93.	5.6	4
59	First-principles study of quasi-one-dimensional Î²-Na0.33V2O5. Solid State Communications, 2006, 138, 563-566.	1.9	7
60	Correlations among superconductivity, structural instability, and band filling inNb1âˆ’xB2at the critical pointxâ‰ˆ0.2. Physical Review B, 2006, 73, .	3.2	8
61	Visible and infrared emissions from c-axis oriented AlN:Er films grown by magnetron sputtering. Journal of Applied Physics, 2006, 99, 053515.	2.5	16
62	Interface of epitaxialSrTiO3on silicon characterized by transmission electron microscopy, electron energy loss spectroscopy, and electron holography. Physical Review B, 2006, 73, .	3.2	11
63	Well-aligned zinc oxide nanorods and nanowires prepared without catalyst. Journal of Crystal Growth, 2005, 274, 126-131.	1.5	81
64	Electronic structure and electron energy-loss spectra of Sr0.35CoO2. Solid State Communications, 2005, 135, 687-691.	1.9	7
65	Monodispersed hard carbon spherules as a catalyst support for the electrooxidation of methanol. Carbon, 2005, 43, 11-16.	10.3	132
66	From aqueous to organic: A step-by-step strategy for shape evolution of gold nanoparticles. Chemical Physics Letters, 2005, 415, 342-345.	2.6	11
67	Phase separation, effects of magnetic field and high pressure on charge ordering in Î³-Na0.5CoO2. Materials Chemistry and Physics, 2005, 94, 119-124.	4.0	10
68	Novel Nanopyramid Arrays of Magnetite. Advanced Materials, 2005, 17, 1893-1897.	21.0	78
69	Fabrication of carbon nanotube bundles and measurement of field electron emission properties. Applied Physics A: Materials Science and Processing, 2005, 80, 195-199.	2.3	8
70	Morphologies and microstructures of nano-sized Cu2O particles using a cetyltrimethylammonium template. Nanotechnology, 2005, 16, 267-272.	2.6	63
71	Strong photoluminescence of nanostructured crystalline tungsten oxide thin films. Applied Physics Letters, 2005, 86, 141901.	3.3	148
72	Controlled synthesis of CeO2nanorods by a solvothermal method. Nanotechnology, 2005, 16, 1454-1463.	2.6	315

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73	Highly Ordered Self-Assembly with Large Area of Fe3O4 Nanoparticles and the Magnetic Properties. Journal of Physical Chemistry B, 2005, 109, 23233-23236.	2.6	225
74	Electron energy loss spectra ofNa0.33CoO2â^™yH2O(y=0, 0.6, and 1.3). Physical Review B, 2005, 72, .	3.2	6
75	Structural and physical properties of the NaxCoO2Â·yH2O superconducting system. Superconductor Science and Technology, 2004, 17, 42-46.	3.5	15
76	Controlled self-assembled nanoaeroplanes, nanocombs, and tetrapod-like networks of zinc oxide. Nanotechnology, 2004, 15, 949-952.	2.6	76
77	Structural properties and charge ordered states in RMnO3 (R=La, Pr, Nd, Ca, Sr) and (La, Sr)2NiO4. Micron, 2004, 35, 419-424.	2.2	3
78	Structural properties of silver nanorods with fivefold symmetry. Micron, 2004, 35, 469-474.	2.2	36
79	Structures and defects of WO3â^'x nanorods grown by in-situ heating tungsten filament. Chemical Physics Letters, 2004, 389, 337-341.	2.6	46
80	Transmission-Electron-Microscopy Study on Fivefold Twinned Silver Nanorods. Journal of Physical Chemistry B, 2004, 108, 12038-12043.	2.6	115