

Hui Wang

List of Publications by Year in descending order

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77
papers

4,425
citations

218381

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102304

66
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all docs

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docs citations

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times ranked

6748
citing authors

#	ARTICLE	IF	CITATIONS
1	Fe-N-C electrocatalyst with dense active sites and efficient mass transport for high-performance proton exchange membrane fuel cells. <i>Nature Catalysis</i> , 2019, 2, 259-268.	16.1	958
2	Engineering surface atomic structure of single-crystal cobalt (II) oxide nanorods for superior electrocatalysis. <i>Nature Communications</i> , 2016, 7, 12876.	5.8	568
3	Activating cobalt(II) oxide nanorods for efficient electrocatalysis by strain engineering. <i>Nature Communications</i> , 2017, 8, 1509.	5.8	361
4	A Highly Stretchable Transparent Self-Powered Triboelectric Tactile Sensor with Metallized Nanofibers for Wearable Electronics. <i>Advanced Materials</i> , 2018, 30, e1706738.	11.1	315
5	Atomically and Electronically Coupled Pt and CoO Hybrid Nanocatalysts for Enhanced Electrocatalytic Performance. <i>Advanced Materials</i> , 2017, 29, 1604607.	11.1	224
6	High-performance lead-free piezoelectrics with local structural heterogeneity. <i>Energy and Environmental Science</i> , 2018, 11, 3531-3539.	15.6	188
7	A piezoelectric, strain-controlled antiferromagnetic memory insensitive to magnetic fields. <i>Nature Nanotechnology</i> , 2019, 14, 131-136.	15.6	150
8	Microstructural tailoring and improvement of mechanical properties in CuZr-based bulk metallic glass composites. <i>Acta Materialia</i> , 2012, 60, 3128-3139.	3.8	146
9	Piezoelectric Phototronic Effect Modulated Deep UV Photodetector Based on ZnO-Ga ₂ O ₃ Heterojunction Microwire. <i>Advanced Functional Materials</i> , 2018, 28, 1706379.	7.8	126
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	Large and Ultrastable All-Inorganic CsPbBr ₃ Monocrystalline Films: Low-Temperature Growth and Application for High-Performance Photodetectors. <i>Advanced Materials</i> , 2018, 30, e1802110.	11.1	94
12	Interaction of Trace Rare-Earth Dopants and Nanoheterogeneities Induces Giant Magnetostriction in Fe-Ga Alloys. <i>Advanced Functional Materials</i> , 2018, 28, 1800858.	7.8	64
13	High precision epidermal radio frequency antenna via nanofiber network for wireless stretchable multifunction electronics. <i>Nature Communications</i> , 2020, 11, 5629.	5.8	48
14	Tailoring the heterogeneous magnetostriction in Fe-Co alloys. <i>Journal of Alloys and Compounds</i> , 2017, 699, 200-209.	2.8	41
15	Characteristics of giant piezoelectricity around the rhombohedral-tetragonal phase boundary in (K,Na)NbO ₃ -based ceramics with different additives. <i>Journal of Materials Chemistry A</i> , 2015, 3, 15951-15961.	5.2	40
16	Initial Irreversible Losses and Enhanced High-Temperature Performance of Rare-Earth Permanent Magnets. <i>Advanced Functional Materials</i> , 2019, 29, 1900690.	7.8	40
17	Effects of solution temperature and Cu content on the properties and microstructure of 2:17-type SmCo magnets. <i>Journal of Alloys and Compounds</i> , 2018, 735, 1971-1976.	2.8	37
18	Dispersible SmCo ₅ nanoparticles with huge coercivity. <i>Nanoscale</i> , 2019, 11, 16962-16967.	2.8	37

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19	Domain structure of adaptive orthorhombic phase in [110]-poled $\text{Pb}(\text{Mg}_{1/3}\text{Nb}_{2/3})\text{O}_3\text{-}30.5\%\text{PbTiO}_3$ single crystal. <i>Applied Physics Letters</i> , 2008, 92, 132906.	1.5	36
20	High electrocatalytic hydrogen evolution activity on a coupled Ru and CoO hybrid electrocatalyst. <i>Journal of Energy Chemistry</i> , 2019, 37, 143-147.	7.1	36
21	Ferroelectricity-induced performance enhancement of V-doped ZnO/Si photodetector by direct energy band modulation. <i>Nano Energy</i> , 2019, 65, 104046.	8.2	36
22	Optimization of mechanical properties of bulk metallic glasses by residual stress adjustment using laser surface melting. <i>Scripta Materialia</i> , 2012, 66, 1057-1060.	2.6	32
23	The formation mechanism of 1:5H phase in $\text{Sm}(\text{Co}, \text{Fe}, \text{Cu}, \text{Zr})_z$ melt-spun ribbons with high iron content. <i>Journal of Magnetism and Magnetic Materials</i> , 2020, 496, 165939.	1.0	30
24	Hierarchical Domain Structure of Adaptive MBPhase in $\text{Pb}(\text{Mg}_{1/3}\text{Nb}_{2/3})\text{O}_3\text{-}32\%\text{PbTiO}_3$ Single Crystal. <i>Journal of the American Ceramic Society</i> , 2008, 91, 2382-2384.	1.9	29
25	Investigating enhanced mechanical properties in dual-phase Fe-Ga-Tb alloys. <i>Scientific Reports</i> , 2016, 6, 34258.	1.6	27
26	Correlation of microstructure and magnetic properties in $\text{Sm}(\text{Co}_{0.1}\text{Cu}_{0.1}\text{Zr}_{0.033})_{6.93}$ magnets solution-treated at different temperatures. <i>Rare Metals</i> , 2019, 38, 20-28.	3.6	27
27	Nitrogen-doping effect on glass formation and primary phase selection in Cu-Zr-Al alloys. <i>Journal of Alloys and Compounds</i> , 2011, 509, 5033-5037.	2.8	26
28	Dislocation network with pair-coupling structure in $\{111\}$ interface of Ni-based single crystal superalloy. <i>Scientific Reports</i> , 2016, 6, 29941.	1.6	26
29	Exploring structural origin of the enhanced magnetostriction in Tb-doped $\text{Fe}_{83}\text{Ga}_{17}$ ribbons: Tuning Tb solubility. <i>Scripta Materialia</i> , 2018, 150, 101-105.	2.6	26
30	Microstructure investigation on magnetostrictive $\text{Fe}_{100-x}\text{Ga}_x$ and $(\text{Fe}_{100-x}\text{Ga}_x)_{99.8}\text{Tb}_{0.2}$ alloys for 19 $\leq x \leq 29$. <i>Intermetallics</i> , 2019, 115, 106628.	1.8	25
31	Formation and mechanical properties of Ni-free Zr-based bulk metallic glasses. <i>Journal of Alloys and Compounds</i> , 2011, 509, S175-S178.	2.8	24
32	Atomic, electronic and magnetic properties of $\text{Fe}_{80}\text{P}_{11}\text{C}_9$ amorphous alloy: A first-principles study. <i>Physica B: Condensed Matter</i> , 2013, 411, 161-165.	1.3	23
33	Large-sized CuZr-based Bulk Metallic Glass Composite with Enhanced Mechanical Properties. <i>Journal of Materials Science and Technology</i> , 2014, 30, 590-594.	5.6	23
34	Enhanced Hydrogen Storage Properties of Mg-Ti-V Nanocomposite at Moderate Temperatures. <i>Journal of Physical Chemistry C</i> , 2014, 118, 22419-22425.	1.5	22
35	Ultrathin ternary semiconductor TlGaSe phototransistors with broad-spectral response. <i>2D Materials</i> , 2017, 4, 035021.	2.0	22
36	Grain boundary optimization induced substantial squareness enhancement and high performance in iron-rich Sm-Co-Fe-Cu-Zr magnets. <i>Journal of Materials Science and Technology</i> , 2021, 85, 56-61.	5.6	22

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37	Making Nanostructured Ceramics from Micrometer-Sized Powders via Grain Refinement During SPS Sintering. <i>Journal of the American Ceramic Society</i> , 2008, 91, 2475-2480.	1.9	20
38	FePt/Co core/shell nanoparticle-based anisotropic nanocomposites and their exchange spring behavior. <i>Nanoscale</i> , 2018, 10, 4061-4067.	2.8	20
39	Local structure origin of higher glass forming ability in Ta doped Co ₆₅ B ₃₅ amorphous alloy. <i>Journal of Applied Physics</i> , 2012, 112, .	1.1	19
40	Effect of ball milling process on coercivity of nanocrystalline SmCo ₅ magnets. <i>Journal of Magnetism and Magnetic Materials</i> , 2018, 446, 200-205.	1.0	18
41	Improved kinetics of nanoparticle-decorated Mg-Ti-Zr nanocomposite for hydrogen storage at moderate temperatures. <i>Materials Chemistry and Physics</i> , 2018, 206, 21-28.	2.0	17
42	Synthesis of SmCo ₅ nanoparticles with small size and high performance by hydrogenation technique. <i>Rare Metals</i> , 2018, 37, 1021-1026.	3.6	17
43	Spray formed Al-based amorphous matrix nanocomposite plate. <i>Journal of Alloys and Compounds</i> , 2011, 509, L169-L173.	2.8	16
44	Giant magnetostriction in nanoheterogeneous Fe-Al alloys. <i>Applied Physics Letters</i> , 2018, 112, .	1.5	16
45	Enhanced Field-Induced Strain in the Textured Lead-Free Ceramic. <i>Journal of the American Ceramic Society</i> , 2016, 99, 3985-3992.	1.9	15
46	Nonvolatile Electric Control of the Anomalous Hall Effect in an Ultrathin Magnetic Metal. <i>Advanced Electronic Materials</i> , 2020, 6, 1901084.	2.6	15
47	Virus-mediated FCC iron nanoparticle induced synthesis of uranium dioxide nanocrystals. <i>Nanotechnology</i> , 2008, 19, 115608.	1.3	14
48	Effect of cooling rate on microstructure and mechanical properties of rapidly solidified Al-based bulk alloys. <i>Journal of Alloys and Compounds</i> , 2010, 504, S117-S122.	2.8	14
49	Dispersible and manipulable magnetic L10-FePt nanoparticles. <i>Nanoscale</i> , 2020, 12, 7843-7848.	2.8	14
50	Multiscale influence of trace Tb addition on the magnetostriction and ductility of $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mo} \rangle \hat{C} \langle \text{mml:mo} \rangle \langle \text{mml:mn} \rangle 100 \langle \text{mml:mn} \rangle \langle \text{mml:mo} \rangle \hat{A} \langle \text{mml:mo} \rangle \langle \text{mml:mn} \rangle 100 \langle \text{mml:mn} \rangle \langle \text{mml:mo} \rangle \hat{A} \langle \text{mml:mo} \rangle \langle \text{mml:mn} \rangle 100 \langle \text{mml:mn} \rangle \langle \text{mml:mo} \rangle \hat{A}$ oriented directionally solidified Fe-Ga crystals. <i>Physical Review Materials</i> , 2019, 3, .	1.1	14
51	Influence of laser surface melting on glass formation and tribological behaviors of Zr ₅₅ Al ₁₀ Ni ₅ Cu ₃₀ alloy. <i>Journal of Materials Research</i> , 2011, 26, 2642-2652.	1.2	13
52	Hierarchical ultrafine-grained/nanocrystalline Al-based bulk alloy with high strength and large plasticity. <i>Intermetallics</i> , 2012, 23, 199-203.	1.8	12
53	Bulk metallic glass composites ductilized by core-shell structured dual crystalline phases through controlled inoculation. <i>Intermetallics</i> , 2014, 45, 24-28.	1.8	11
54	Hierarchical ultrafine-grained network mediated high strength and large plasticity in an Al-based alloy. <i>Materials Letters</i> , 2014, 124, 28-31.	1.3	10

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55	Direct TEM Observation of Phase Separation and Crystallization in Cu ₄₅ Zr ₄₅ Ag ₁₀ Metallic Glass. Acta Metallurgica Sinica (English Letters), 2016, 29, 538-545.	1.5	9
56	Bi deficiency-tuned functionality in multiferroic Bi _{1-x} Fe _{0.95} Mn _{0.05} O ₃ films. Scientific Reports, 2016, 6, 19385.	1.6	9
57	Correlation between ordered solid solution and cellular structure of Sm ₂ Co ₁₇ type magnets with high iron content. Journal of Magnetism and Magnetic Materials, 2021, 519, 167477.	1.0	9
58	Chemical synthesis and characterization of SmCo ₅ /Co magnetic nanocomposite particles. Rare Metals, 2021, 40, 1224-1231.	3.6	8
59	Influence of the final heat treatment temperature on the magnetic property losses of Sm(Co,Fe,Cu,Zr) _z high temperature magnets. Journal of Magnetism and Magnetic Materials, 2021, 528, 167763.	1.0	7
60	Quantitative analysis of pinning-hardened intrinsic coercivity of Sm(CoFeCuZr) _z (z=7.0~7.8) high-temperature permanent magnets. Journal of Alloys and Compounds, 2021, 872, 159622.	2.8	7
61	Microstructure and mechanical properties of a spray-formed Ti-based metallic glass former alloy. Journal of Alloys and Compounds, 2012, 512, 241-245.	2.8	6
62	Stable Stacking Faults Bounded by Frank Partial Dislocations in Al ₇₀ Fe ₇₅ Formed through Precipitate and Dislocation Interactions. Crystals, 2017, 7, 375.	1.0	6
63	Low remanence temperature coefficient Sm _{1-x} Er _x (Co, Fe, Cu, Zr) _z magnets operating up to 400°C. Rare Metals, 2020, 39, 70-75.	3.6	6
64	c-axis textured La ₂ CuO ₄ thin films prepared by NaClO oxidation: I. Superconducting and structural properties. Superconductor Science and Technology, 2004, 17, 1046-1050.	1.8	5
65	Preparation of low remanence temperature coefficient (RT ~ 300°C) SmDy (Co, Fe, Cu, Zr) _z magnets and molecular field analysis. Journal of Magnetism and Magnetic Materials, 2018, 466, 38-43.	1.0	5
66	Silicide coating stabilized high temperature performance and oxidation resistance mechanism of 2:17-type SmCo permanent magnets. Corrosion Science, 2020, 173, 108752.	3.0	5
67	Role of columnar grain size in magnetization of La _{0.8} MnO ₃ thin films grown by pulsed laser deposition. Applied Physics A: Materials Science and Processing, 2005, 81, 1423-1426.	1.1	4
68	In situ electrical characterization of tapered InAs nanowires in a transmission electron microscope with ohmic contacts. Nanotechnology, 2015, 26, 155703.	1.3	4
69	First-principles study of site preferences for Fe in Sm permanent magnets. Physical Review Materials, 2020, 4, .		
70	Local structure of Co ₅₅ Ta ₁₀ B ₃₅ amorphous alloy investigated by ab-initio molecular dynamics. Science China: Physics, Mechanics and Astronomy, 2013, 56, 904-909.	2.0	3
71	Fabrication of nanoporous silver by de-alloying Cu-Zr-Ag amorphous alloys. International Journal of Minerals, Metallurgy and Materials, 2016, 23, 835-843.	2.4	3
72	c-axis textured La ₂ CuO ₄ thin films prepared by NaClO oxidation: II. Electron microscopic characterization. Superconductor Science and Technology, 2004, 17, 1051-1054.	1.8	2

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73	Fast Preparation of Ultrathin FIB Lamellas for MEMs-Based <i>In Situ</i> TEM Experiments. Materials Science Forum, 2016, 850, 722-727.	0.3	2
74	Microstructure and creep properties of Ni-based single-crystal superalloys with Mo/Al addition at 760°C/850MPa. Rare Metals, 2018, , 1.	3.6	2
75	Morphology evolution of SmCo _x permanent magnetic nanoparticles. Science China: Physics, Mechanics and Astronomy, 2021, 64, 1.	2.0	2
76	Effect of columnar structures on resistivity behavior of epitaxial La _{0.8} MnO ₃ thin films. Journal of Applied Physics, 2005, 97, 086104.	1.1	1
77	Nano-scale lithography and in-situ electrical measurements based on the micro-chips in a transmission electron microscope. Wuli Xuebao/Acta Physica Sinica, 2014, 63, 248105.	0.2	0