Alice Hu

List of Publications by Year
in descending order

51 papers	3,980 citations	279487 23 h-index	189595 50 g-index
53 all docs	53 docs citations	53 times ranked	3497 citing authors

#	Article	IF	Citations
1	Multicomponent intermetallic nanoparticles and superb mechanical behaviors of complex alloys. Science, 2018, 362, 933-937.	6.0	950
2	Heterogeneous precipitation behavior and stacking-fault-mediated deformation in a CoCrNi-based medium-entropy alloy. Acta Materialia, 2017, 138, 72-82.	3.8	553
3	Outstanding tensile properties of a precipitation-strengthened FeCoNiCrTi0.2 high-entropy alloy at room and cryogenic temperatures. Acta Materialia, 2019, 165, 228-240.	3.8	373
4	Lattice distortion in a strong and ductile refractory high-entropy alloy. Acta Materialia, 2018, 160, 158-172.	3.8	325
5	The origin of negative stacking fault energies and nano-twin formation in face-centered cubic high entropy alloys. Scripta Materialia, 2017, 130, 96-99.	2.6	223
6	The S-functionalized Ti₃C₂ Mxene as a high capacity electrode material for Na-ion batteries: a DFT study. Nanoscale, 2018, 10, 3385-3392.	2.8	139
7	Platinum-trimer decorated cobalt-palladium core-shell nanocatalyst with promising performance for oxygen reduction reaction. Nature Communications, 2019, 10, 440.	5.8	115
8	Theoretical investigation of zirconium carbide MXenes as prospective high capacity anode materials for Na-ion batteries. Journal of Materials Chemistry A, 2018, 6, 13652-13660.	5.2	111
9	Exceptional Optical Absorption of Buckled Arsenene Covering a Broad Spectral Range by Molecular Doping. ACS Omega, 2018, 3, 8514-8520.	1.6	107
10	Achieving large uniform tensile elasticity in microfabricated diamond. Science, 2021, 371, 76-78.	6.0	95
11	Atomic-scale distorted lattice in chemically disordered equimolar complex alloys. Acta Materialia, 2018, 150, 182-194.	3.8	89
12	Few-Layer PdSe₂ Sheets: Promising Thermoelectric Materials Driven by High Valley Convergence. ACS Omega, 2018, 3, 5971-5979.	1.6	87
13	Point Defects in Blue Phosphorene. Chemistry of Materials, 2019, 31, 8129-8135.	3.2	86
14	First-principles calculations of the electronic properties of SiC-based bilayer and trilayer heterostructures. Physical Chemistry Chemical Physics, 2018, 20, 24726-24734.	1.3	77
15	Helium accumulation and bubble formation in FeCoNiCr alloy under high fluence He+ implantation. Journal of Nuclear Materials, 2018, 501, 208-216.	1.3	65
16	Composition evolution of gamma prime nanoparticles in the Ti-doped CoFeCrNi high entropy alloy. Scripta Materialia, 2018, 148, 42-46.	2.6	54
17	Theoretical prediction of MXene-like structured Ti₃C₄as a high capacity electrode material for Na ion batteries. Physical Chemistry Chemical Physics, 2017, 19, 29106-29113.	1.3	51
18	Self-propelled droplet-based electricity generation. Nanoscale, 2018, 10, 23164-23169.	2.8	49

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19	In situ nanomechanical characterization of multi-layer MoS₂membranes: from intraplanar to interplanar fracture. Nanoscale, 2017, 9, 9119-9128.	2.8	39
20	Phase transformation assisted twinning in a face-centered-cubic FeCrNiCoAl high entropy alloy. Acta Materialia, 2019, 181, 491-500.	3.8	37
21	Programming ORR Activity of Ni/NiO_x@Pd Electrocatalysts via Controlling Depth of Surface-Decorated Atomic Pt Clusters. ACS Omega, 2018, 3, 8733-8744.	1.6	27
22	Pt₃ clusters-decorated Co@Pd and Ni@Pd model coreâ€“shell catalyst design for the oxygen reduction reaction: a DFT study. Journal of Materials Chemistry A, 2018, 6, 23326-23335.	5.2	26
23	Giant shift upon strain on the fluorescence spectrum of VNNB color centers in h-BN. Npj Quantum Information, 2020, 6, .	2.8	25
24	Oxygenated (113) diamond surface for nitrogen-vacancy quantum sensors with preferential alignment and long coherence time from first principles. Carbon, 2019, 145, 273-280.	5.4	24
25	Interfacial atomic Ni tetragon intercalation in a NiO₂-to-Pd hetero-structure triggers superior HER activity to the Pt catalyst. Journal of Materials Chemistry A, 2021, 9, 12019-12028.	5.2	19
26	Modeling hydrogen isotope behavior in fusion plasma-facing components. Journal of Nuclear Materials, 2014, 446, 56-62.	1.3	17
27	The influence of dilute aluminum and molybdenum on stacking fault and twin formation in FeNiCoCr-based high entropy alloys based on density functional theory. Scientific Reports, 2019, 9, 10940.	1.6	16
28	Nanoisozymes: The Origin behind Pristine CeO₂ as Enzyme Mimetics. Chemistry - A European Journal, 2020, 26, 10598-10606.	1.7	16
29	Collaboration between a Pt-dimer and neighboring Coâ€“Pd atoms triggers efficient pathways for oxygen reduction reaction. Physical Chemistry Chemical Physics, 2021, 23, 1822-1834.	1.3	16
30	How surface roughness affects the angular dependence of the sputtering yield. Nuclear Instruments & Methods in Physics Research B, 2012, 281, 15-20.	0.6	15
31	Molecular doping of blue phosphorene: a first-principles investigation. Journal of Physics Condensed Matter, 2020, 32, 055501.	0.7	14
32	Atomic scale Pt decoration promises oxygen reduction properties of Co@Pd nanocatalysts in alkaline electrolytes for 310k redox cycles. Sustainable Energy and Fuels, 2018, 2, 946-957.	2.5	13
33	Atomic Configuration of Point Defect Clusters in Ion-Irradiated Silicon Carbide. Scientific Reports, 2017, 7, 14635.	1.6	12
34	Rapid crystal growth of bimetallic PdPt nanocrystals with surface atomic Pt cluster decoration provides promising oxygen reduction activity. RSC Advances, 2017, 7, 55110-55120.	1.7	10
35	Elemental Phase Partitioning in the Î³-Î³â€³ Ni2CoFeCrNb0.15 High Entropy Alloy. Entropy, 2018, 20, 910.	1.1	10
36	X-ray Absorption Spectroscopy and In-Operando Neutron Diffraction Studies on Local Structure Fading Induced Irreversibility in a 18â€¯650 Cell with P2â€“Na₂/3Fe₁/3Mn₂/3O₂ Cathode in a Long Cycle Test. Journal of Physical Chemistry C, 2018, 122, 12623-12632.	1.5	10

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37	A study of strain-induced indirect-direct bandgap transition for silicon nanowire applications. Journal of Applied Physics, 2019, 125, .	1.1	10
38	Modified Embedded Atom Method Potential for Modeling the Thermodynamic Properties of High Thermal Conductivity Beryllium Oxide. ACS Omega, 2019, 4, 6339-6346.	1.6	10
39	Fracture of a silicon nanowire at ultra-large elastic strain. Acta Mechanica, 2019, 230, 1441-1449.	1.1	10
40	First-principles investigation of water adsorption on FeCrAl (1â€¯1â€¯0) surfaces. Applied Surface Science, 2019, 465, 259-266.	3.1	8
41	Predicting hydrogen isotope inventory in plasma-facing components during normal and abnormal operations in fusion devices. Journal of Nuclear Materials, 2015, 465, 582-589.	1.3	6
42	Crystal shape controlled H2 storage rate in nanoporous carbon composite with ultra-fine Pt nanoparticle. Scientific Reports, 2017, 7, 42438.	1.6	6
43	Microscopic origin of black spot defect swelling in single crystal 3C-SiC. Journal of Nuclear Materials, 2018, 508, 292-298.	1.3	6
44	From symmetry to entropy: Crystal entropy difference strongly affects early stage phase transformation. Applied Physics Letters, 2019, 115, .	1.5	6
45	Atomic structure of nano voids in irradiated 3C-SiC. Journal of Nuclear Materials, 2018, 498, 71-75.	1.3	5
46	â€œDeep Ultra-Strengthâ€•Induced Band Structure Evolution in Silicon Nanowires. Journal of Physical Chemistry C, 2018, 122, 15780-15785.	1.5	5
47	Cyclability evaluation on Si based Negative Electrode in Lithium ion Battery by Graphite Phase Evolution: an operando X-ray diffraction study. Scientific Reports, 2019, 9, 1299.	1.6	5
48	Tri-atomic Pt clusters induce effective pathways in a Co_{core}â€“Pd_{shell} nanocatalyst surface for a high-performance oxygen reduction reaction. Physical Chemistry Chemical Physics, 2021, 23, 18012-18025.	1.3	5
49	An optimized random structures generator governed by chemical short-range order for multi-component solid solutions. Modelling and Simulation in Materials Science and Engineering, 2019, 27, 085007.	0.8	2
50	Model to estimate fractal dimension for ion-bombarded materials. Nuclear Instruments & Methods in Physics Research B, 2014, 323, 82-86.	0.6	1
51	Finite element modeling of superplastic co-doped yttria-stabilized tetragonal-zirconia polycrystals. Journal of Zhejiang University: Science A, 2016, 17, 989-999.	1.3	0