Hua-Hai Shen

List of Publications by Year
in descending order

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49 papers	1,143 citations	567281 15 h-index	395702 33 g-index
49 all docs	49 docs citations	49 times ranked	1057 citing authors

#	Article	IF	Citations
1	FeNi@CNS nanocomposite as an efficient electrochemical catalyst for N2-to-NH3 conversion under ambient conditions. Journal of Materials Science and Technology, 2022, 103, 59-66.	10.7	22
2	Synthesis and bader analyzed cobalt-phthalocyanine modified solar UV-blind Î²-Ga2O3 quadrilateral nanorods photocatalysts for wide-visible-light driven H2 evolution. Applied Catalysis B: Environmental, 2022, 307, 121149.	20.2	51
3	Electronic structure regulation toward the improvement of the hydrogenation properties of TiZrHfMoNb high-entropy alloy. Journal of Alloys and Compounds, 2022, 905, 164150.	5.5	6
4	The origin of anomalous hydrogen occupation in high entropy alloys. Journal of Materials Chemistry A, 2022, 10, 7228-7237.	10.3	11
5	Superior Radiation Resistance of ZrO2-Modified W Composites. Materials, 2022, 15, 1985.	2.9	3
6	Exceptional Photocatalytic Activities of rGO Modified (B,N) Coâ€Doped WO₃, Coupled with CdSe QDs for One Photon Zâ€Scheme System: A Joint Experimental and DFT Study. Advanced Science, 2022, 9, e2102530.	11.2	52
7	Defect formation and its effect on the thermodynamic properties of Pu₂Zr₂O₇ pyrochlore: a firstâ€principles study. Journal of the American Ceramic Society, 2021, 104, 2301-2312.	3.8	2
8	Influencing factors of helium bubble growth in erbium tritides: Grain size and impurity element. Journal of Alloys and Compounds, 2021, 860, 157911.	5.5	5
9	Theoretical Combined Experimental Study of Unique He Behaviors in High-Entropy Alloys. Inorganic Chemistry, 2021, 60, 1388-1397.	4.0	12
10	Ab initio study of the behavior of helium in different Erbium hydrides. Materials Today Communications, 2021, 26, 102039.	1.9	0
11	Superior Hydrogen Sorption Kinetics of Ti0.20Zr0.20Hf0.20Nb0.40 High-Entropy Alloy. Metals, 2021, 11, 470.	2.3	11
12	A First-Principles Study of Hydrogen Desorption from High Entropy Alloy TiZrVMoNb Hydride Surface. Metals, 2021, 11, 553.	2.3	4
13	Effects of deuterium content on the thermal stability and deuterium site occupancy of TiZrHfMoNb deuterides. Journal of Solid State Chemistry, 2021, 297, 121999.	2.9	4
14	Preliminary assessment of high-entropy alloys for tritium storage. Tungsten, 2021, 3, 119-130.	4.8	5
15	A first-principles study of hydrogen storage of high entropy alloy TiZrVMoNb. International Journal of Hydrogen Energy, 2021, 46, 21050-21058.	7.1	28
16	The effect of hydrogen on the mechanical properties of high entropy alloy TiZrHfMoNb: First-principles investigation. Journal of Alloys and Compounds, 2021, 879, 160482.	5.5	15
17	Electronic and nanostructure engineering of bifunctional MoS2 towards exceptional visible-light photocatalytic CO2 reduction and pollutant degradation. Journal of Hazardous Materials, 2020, 381, 120972.	12.4	90
18	An abnormal incorporation behavior of Th in Gd 2 Zr 2 O 7 : A firstâ€principles study. Journal of the American Ceramic Society, 2020, 103, 1846-1853.	3.8	2

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19	Regulating the helium bubble nucleation in the titanium tritides by environment temperature during the early aging period. Journal of Nuclear Materials, 2020, 529, 151950.	2.7	5
20	A Density Functional Theory Study of the Hydrogen Absorption in High Entropy Alloy TiZrHfMoNb. Inorganic Chemistry, 2020, 59, 9774-9782.	4.0	31
21	Compositional dependence of hydrogenation performance of Ti-Zr-Hf-Mo-Nb high-entropy alloys for hydrogen/tritium storage. Journal of Materials Science and Technology, 2020, 55, 116-125.	10.7	66
22	Promoting visible-light photocatalytic activities for carbon nitride based 0D/2D/2D hybrid system: Beyond the conventional 4-electron mechanism. Applied Catalysis B: Environmental, 2020, 270, 118870.	20.2	107
23	Revealing the Chemical and Structural Evolution of V2O5 Nanoribbons in Lithium-Ion Batteries Using in Situ Transmission Electron Microscopy. Analytical Chemistry, 2019, 91, 11055-11062.	6.5	18
24	Effects of helium irradiation dose and temperature on the damage evolution of Ti3SiC2 ceramic. Chinese Physics B, 2019, 28, 076104.	1.4	1
25	One-step colloid fabrication of nickel phosphides nanoplate/nickel foam hybrid electrode for high-performance asymmetric supercapacitors. Chemical Engineering Journal, 2019, 373, 1132-1143.	12.7	120
26	Effect of Thickness of Molybdenum Nano-Interlayer on Cohesion between Molybdenum/Titanium Multilayer Film and Silicon Substrate. Nanomaterials, 2019, 9, 616.	4.1	4
27	A DFT Study of Hydrogen Storage in High-Entropy Alloy TiZrHfScMo. Nanomaterials, 2019, 9, 461.	4.1	60
28	A Novel TiZrHfMoNb High-Entropy Alloy for Solar Thermal Energy Storage. Nanomaterials, 2019, 9, 248.	4.1	66
29	Effects of Embedded Helium on the Microstructure and Mechanical Properties of Erbium Films. Nanomaterials, 2019, 9, 1564.	4.1	2
30	Effect of microstructure on ³ He migration in TiT _{1.9} films. Chinese Physics B, 2018, 27, 096103.	1.4	1
31	Evolution of 3He bubble microstructure in TiT2 films during aging. Journal of Nuclear Materials, 2018, 509, 700-706.	2.7	6
32	Synthesis of S-Doped porous g-C3N4 by using ionic liquids and subsequently coupled with Au-TiO2 for exceptional cocatalyst-free visible-light catalytic activities. Applied Catalysis B: Environmental, 2018, 237, 1082-1090.	20.2	151
33	He+ irradiation induced cracking and exfoliating on the surface of Ti3AlC2. Journal of Nuclear Materials, 2017, 485, 262-272.	2.7	12
34	Effects of Xe + irradiation on Ti 3 SiC 2 at RT and 500 Â°C. Journal of the European Ceramic Society, 2017, 37, 855-858.	5.7	10
35	Direct observation of hydrogenation and dehydrogenation of a zirconium alloy. Journal of Alloys and Compounds, 2016, 659, 23-30.	5.5	32
36	Helium bubble evolution in a Zrâ€“Snâ€“Nbâ€“Feâ€“Cr alloy during post-annealing: An in-situ investigation. Materials Characterization, 2015, 107, 309-316.	4.4	11

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37	Microstructure characterization and optical properties of sapphire after helium ion implantation. Nuclear Instruments & Methods in Physics Research B, 2015, 353, 21-27.	1.4	8
38	Microstructure evolution of zircaloy-4 during Ne ion irradiation and annealing: Anin situTEM investigation. Chinese Physics B, 2014, 23, 036102.	1.4	9
39	In situ TEM investigation of amorphization and recrystallization of Zr(Fe,Cr,Nb)2 precipitates under Ne ion irradiation. Vacuum, 2014, 110, 24-29.	3.5	15
40	Proton irradiation effects on the precipitate in a Zrâ€“1.6Snâ€“0.6Nbâ€“0.2Feâ€“0.1Cr alloy. Journal of Nuclear Materials, 2014, 452, 335-342.	2.7	32
41	On the study of the oriented cracks formed in ErD2 thin film. Materials Letters, 2013, 106, 259-262.	2.6	7
42	Formation and Dissociation of Bamboo-like ErD2/ErD3 Grains. Journal of Materials Science and Technology, 2013, 29, 1101-1103.	10.7	2
43	Fabrication processing effects on the microstructure and morphology of erbium film. Chinese Physics B, 2012, 21, 076101.	1.4	3
44	In-situ synchrotron X-ray diffraction study of stress-induced phase transformation in Ti50.1Ni40.8Cu9.1 thin films. Physica B: Condensed Matter, 2012, 407, 3437-3440.	2.7	3
45	Influence of growth parameters on the microstructures of erbium films deposited on Si(111) substrates. Vacuum, 2012, 86, 2075-2081.	3.5	3
46	Microstructure changes of erbium and erbium deuteride films induced by helium implantation. Materials Letters, 2012, 80, 17-19.	2.6	9
47	Effect of thermal annealing on the microstructure and morphology of erbium films. Thin Solid Films, 2012, 520, 6196-6200.	1.8	5
48	The effect of substrate temperature on the oxidation behavior of erbium thick films. Vacuum, 2012, 86, 1097-1101.	3.5	13
49	The effect of Si content on the martensitic transformation temperature of Ni _{55.5} Fe ₁₈ Ga _{26.5â˜’ x} Si _x alloys. Chinese Physics B, 2011, 20, 046102.	1.4	8