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	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
2	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
3	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
4	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
5	A Novel TiZrHfMoNb High-Entropy Alloy for Solar Thermal Energy Storage. Nanomaterials, 2019, 9, 248.	4.1	66
6	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
7	A DFT Study of Hydrogen Storage in High-Entropy Alloy TiZrHfScMo. Nanomaterials, 2019, 9, 461.	4.1	60
8	Exceptional Photocatalytic Activities of rGO Modified (B,N) Coâ€Đoped WO‹sub›3‹/sub›, Coupled with CdSe QDs for One Photon Zâ€Scheme System: A Joint Experimental and DFT Study. Advanced Science, 2022, 9, e2102530.	11.2	52
9	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
10	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
11	Direct observation of hydrogenation and dehydrogenation of a zirconium alloy. Journal of Alloys and Compounds, 2016, 659, 23-30.	5.5	32
12	A Density Functional Theory Study of the Hydrogen Absorption in High Entropy Alloy TiZrHfMoNb. Inorganic Chemistry, 2020, 59, 9774-9782.	4.0	31
13	A first-principles study of hydrogen storage of high entropy alloy TiZrVMoNb. International Journal of Hydrogen Energy, 2021, 46, 21050-21058.	7.1	28
14	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
15	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
16	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
17	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
18	The effect of substrate temperature on the oxidation behavior of erbium thick films. Vacuum, 2012, 86, 1097-1101.	3.5	13

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19	He+ irradiation induced cracking and exfoliating on the surface of Ti3AlC2. Journal of Nuclear Materials, 2017, 485, 262-272.	2.7	12
20	Theoretical Combined Experimental Study of Unique He Behaviors in High-Entropy Alloys. Inorganic Chemistry, 2021, 60, 1388-1397.	4.0	12
21	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
22	Superior Hydrogen Sorption Kinetics of Ti0.20Zr0.20Hf0.20Nb0.40 High-Entropy Alloy. Metals, 2021, 11, 470.	2.3	11
23	The origin of anomalous hydrogen occupation in high entropy alloys. Journal of Materials Chemistry A, 2022, 10, 7228-7237.	10.3	11
24	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
25	Microstructure changes of erbium and erbium deuteride films induced by helium implantation. Materials Letters, 2012, 80, 17-19.	2.6	9
26	Microstructure evolution of zircaloy-4 during Ne ion irradiation and annealing: Anin situTEM investigation. Chinese Physics B, 2014, 23, 036102.	1.4	9
27	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
28	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
29	On the study of the oriented cracks formed in ErD2 thin film. Materials Letters, 2013, 106, 259-262.	2.6	7
30	Evolution of 3He bubble microstructure in TiT2 films during aging. Journal of Nuclear Materials, 2018, 509, 700-706.	2.7	6
31	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
32	Effect of thermal annealing on the microstructure and morphology of erbium films. Thin Solid Films, 2012, 520, 6196-6200.	1.8	5
33	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
34	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
35	Preliminary assessment of high-entropy alloys for tritium storage. Tungsten, 2021, 3, 119-130.	4.8	5
36	Effect of Thickness of Molybdenum Nano-Interlayer on Cohesion between Molybdenum/Titanium Multilayer Film and Silicon Substrate. Nanomaterials, 2019, 9, 616.	4.1	4

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37	A First-Principles Study of Hydrogen Desorption from High Entropy Alloy TiZrVMoNb Hydride Surface. Metals, 2021, 11, 553.	2.3	4
38	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
39	Fabrication processing effects on the microstructure and morphology of erbium film. Chinese Physics B, 2012, 21, 076101.	1.4	3
40	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
41	Influence of growth parameters on the microstructures of erbium films deposited on Si(111) substrates. Vacuum, 2012, 86, 2075-2081.	3.5	3
42	Superior Radiation Resistance of ZrO2-Modified W Composites. Materials, 2022, 15, 1985.	2.9	3
43	Formation and Dissociation of Bamboo-like ErD2/ErD3 Grains. Journal of Materials Science and Technology, 2013, 29, 1101-1103.	10.7	2
44	Effects of Embedded Helium on the Microstructure and Mechanical Properties of Erbium Films. Nanomaterials, 2019, 9, 1564.	4.1	2
45	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
46	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
47	Effect of microstructure on ³ He migration in TiT _{1.9} films. Chinese Physics B, 2018, 27, 096103.	1.4	1
48	Effects of helium irradiation dose and temperature on the damage evolution of Ti3SiC2 ceramic. Chinese Physics B, 2019, 28, 076104.	1.4	1
49	Ab initio study of the behavior of helium in different Erbium hydrides. Materials Today Communications, 2021, 26, 102039.	1.9	0