

Xiaosong Zhou

List of Publications by Year in descending order

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64
papers

1,936
citations

361413

20
h-index

254184

43
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64
all docs

64
docs citations

64
times ranked

2243
citing authors

#	ARTICLE	IF	CITATIONS
1	The origin of anomalous hydrogen occupation in high entropy alloys. <i>Journal of Materials Chemistry A</i> , 2022, 10, 7228-7237.	10.3	11
2	Superior Radiation Resistance of ZrO ₂ -Modified W Composites. <i>Materials</i> , 2022, 15, 1985.	2.9	3
3	Influencing factors of helium bubble growth in erbium tritides: Grain size and impurity element. <i>Journal of Alloys and Compounds</i> , 2021, 860, 157911.	5.5	5
4	Prediction on Phase Stabilities of the Zr-H System from the First-Principles. <i>Acta Metallurgica Sinica (English Letters)</i> , 2021, 34, 514-522.	2.9	2
5	Superior Hydrogen Sorption Kinetics of Ti _{0.20} Zr _{0.20} Hf _{0.20} Nb _{0.40} High-Entropy Alloy. <i>Metals</i> , 2021, 11, 470.	2.3	11
6	Synthesis and enhanced mechanical properties of compositionally complex MAX phases. <i>Journal of the European Ceramic Society</i> , 2021, 41, 4658-4665.	5.7	36
7	Effect of Copper Doping on Electronic Structure and Optical Absorption of Cd ₃₃ Se ₃₃ Quantum Dots. <i>Nanomaterials</i> , 2021, 11, 2531.	4.1	5
8	A comparative theoretical study on the structure stability and adhesion properties of the Zr(0001)-ZrC(100) and Zr(0001)-ZrC(110) interfaces. <i>Surface Science</i> , 2021, 713, 121895.	1.9	2
9	First-principles calculation on the structure stability, hydrogen trapping behaviour, and adhesion properties of the Zr(0001) ZrC(100) interface. <i>Applied Surface Science</i> , 2020, 508, 144825.	6.1	7
10	Regulating the helium bubble nucleation in the titanium tritides by environment temperature during the early aging period. <i>Journal of Nuclear Materials</i> , 2020, 529, 151950.	2.7	5
11	Effect of Electrolyte on the Proton Transport through Graphane in the Electrochemical Cell: A First-Principles Study. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 3025-3031.	4.6	6
12	Temperature dependent electrochemical equilibrium diagram of zirconium-water system studied with density functional theory and experimental thermodynamic data. <i>Journal of Nuclear Materials</i> , 2020, 532, 152036.	2.7	11
13	Compositional dependence of hydrogenation performance of Ti-Zr-Hf-Mo-Nb high-entropy alloys for hydrogen/tritium storage. <i>Journal of Materials Science and Technology</i> , 2020, 55, 116-125.	10.7	66
14	Hydrogen Isotope Separation via Ion Penetration through Group-IV Monolayer Materials in Electrochemical Environment. <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 4618-4624.	4.6	5
15	Large electromagnetic interference shielding effectiveness in Ti ₃ (Al, Si)C ₂ system. <i>Journal of Materials Science: Materials in Electronics</i> , 2019, 30, 11011-11016.	2.2	1
16	Control of the compositions and morphologies of uranium oxide nanocrystals in the solution phase: multi-monomer growth and self-catalysis. <i>Nanoscale Advances</i> , 2019, 1, 1314-1318.	4.6	5
17	Effect of Thickness of Molybdenum Nano-Interlayer on Cohesion between Molybdenum/Titanium Multilayer Film and Silicon Substrate. <i>Nanomaterials</i> , 2019, 9, 616.	4.1	4
18	The structure stability, diffusion behavior and elastic properties of stoichiometric ZrC bulk with interstitial hydrogen defect: A first-principles study. <i>Journal of Nuclear Materials</i> , 2019, 521, 146-154.	2.7	11

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19	Mxenes Derived Laminated and Magnetic Composites with Excellent Microwave Absorbing Performance. Scientific Reports, 2019, 9, 3957.	3.3	51
20	A Novel TiZrHfMoNb High-Entropy Alloy for Solar Thermal Energy Storage. Nanomaterials, 2019, 9, 248.	4.1	66
21	Effects of Embedded Helium on the Microstructure and Mechanical Properties of Erbium Films. Nanomaterials, 2019, 9, 1564.	4.1	2
22	Thin film flexible/bendable acoustic wave devices: Evolution, hybridization and decoupling of multiple acoustic wave modes. Surface and Coatings Technology, 2019, 357, 587-594.	4.8	26
23	KD-S SiCf/SiC composites with BN interface fabricated by polymer infiltration and pyrolysis process. Journal of Advanced Ceramics, 2018, 7, 169-177.	17.4	43
24	Electromagnetic interference shielding performance of nano-layered Ti ₃ SiC ₂ ceramics at high-temperatures. AIP Advances, 2018, 8, .	1.3	17
25	The evolution of helium from aged Zr tritides: A thermal helium desorption spectrometry study. Journal of Nuclear Materials, 2018, 499, 490-495.	2.7	9
26	Ni-modified Ti ₃ C ₂ MXene with enhanced microwave absorbing ability. Materials Chemistry Frontiers, 2018, 2, 2320-2326.	5.9	87
27	Synthesis of UO ₂ nanocrystals with good oxidation resistance in water at room temperature. Journal of Nuclear Materials, 2018, 512, 417-422.	2.7	12
28	Dependences of microstructure on electromagnetic interference shielding properties of nano-layered Ti ₃ AlC ₂ ceramics. Scientific Reports, 2018, 8, 7935.	3.3	24
29	Evolution of ³ He bubble microstructure in TiT ₂ films during aging. Journal of Nuclear Materials, 2018, 509, 700-706.	2.7	6
30	Advances in piezoelectric thin films for acoustic biosensors, acoustofluidics and lab-on-chip applications. Progress in Materials Science, 2017, 89, 31-91.	32.8	467
31	High-temperature electromagnetic interference shielding of layered Ti ₃ AlC ₂ ceramics. Scripta Materialia, 2017, 134, 47-51.	5.2	29
32	B ₄ C-Al Composites Fabricated by the Powder Metallurgy Process. Applied Sciences (Switzerland), 2017, 7, 1009.	2.5	24
33	Lightweight graphene nanoplatelet/boron carbide composite with high EMI shielding effectiveness. AIP Advances, 2016, 6, .	1.3	20
34	Electric field enhanced adsorption and diffusion of adatoms in MoS ₂ monolayer. Materials Chemistry and Physics, 2016, 183, 392-397.	4.0	28
35	Thermal desorption behavior of helium in aged titanium tritide films. Journal of Nuclear Materials, 2015, 466, 615-620.	2.7	13
36	Ab initio study of intrinsic defects and diffusion behaviors in solid molecular hydrogens. European Physical Journal B, 2015, 88, 1.	1.5	1

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37	Discrete microfluidics based on aluminum nitride surface acoustic wave devices. <i>Microfluidics and Nanofluidics</i> , 2015, 18, 537-548.	2.2	46
38	Flexible and bendable acoustofluidics based on ZnO film coated aluminium foil. <i>Sensors and Actuators B: Chemical</i> , 2015, 221, 230-235.	7.8	29
39	³ He retention and structural evolution in erbium tritides: Phase and aging effects. <i>Journal of Nuclear Materials</i> , 2015, 461, 157-163.	2.7	5
40	Positive and Negative Effects of Carbon Nanotubes on the Hydrogen Sorption Kinetics of Magnesium. <i>Journal of Physical Chemistry C</i> , 2015, 119, 25282-25290.	3.1	31
41	Nebulization of water/glycerol droplets generated by ZnO/Si surface acoustic wave devices. <i>Microfluidics and Nanofluidics</i> , 2015, 19, 273-282.	2.2	24
42	First-Principles Study of the Structural Stability and Electronic and Elastic Properties of Helium in ϵ -Zirconium. <i>Advances in Condensed Matter Physics</i> , 2014, 2014, 1-8.	1.1	15
43	Wall-induced phase transition controlled by layering freezing. <i>Physical Review E</i> , 2014, 89, 032412.	2.1	9
44	Ab initio calculations of mechanical properties in ϵ -MH ₂ (M = Er, Sc). <i>European Physical Journal B</i> , 2014, 87, 1.	1.5	2
45	Structural investigations in helium charged titanium films using grazing incidence XRD and EXAFS spectroscopy. <i>Journal of Nuclear Materials</i> , 2014, 444, 142-146.	2.7	4
46	Effects of carbon nanotubes on the dehydrogenation behavior of magnesium hydride at relatively low temperatures. <i>Journal of Materials Chemistry A</i> , 2014, 2, 16369-16372.	10.3	19
47	Effects of tritium content on lattice parameter, ³ He retention, and structural evolution during aging of titanium tritide. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 20062-20071.	7.1	21
48	Thermal desorption of tritium and helium in aged titanium tritide films. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 11006-11015.	7.1	19
49	Electrode loading effect and high temperature performance of ZnO thin film ultrasonic transducers. <i>Applied Surface Science</i> , 2014, 315, 307-313.	6.1	8
50	Structure and electronic properties of transition metal dichalcogenide MX ₂ (M = Mo, W, Nb; X = S, Se) monolayers with grain boundaries. <i>Materials Chemistry and Physics</i> , 2014, 147, 1068-1073.	4.0	26
51	Freezing of Lennard-Jones fluid on a patterned substrate. <i>Physical Review E</i> , 2014, 89, 062410.	2.1	9
52	Sputtered ZnO film on aluminium foils for flexible ultrasonic transducers. <i>Ultrasonics</i> , 2014, 54, 1991-1998.	3.9	26
53	Annealing effect on the generation of dual mode acoustic waves in inclined ZnO films. <i>Ultrasonics</i> , 2013, 53, 1264-1269.	3.9	13
54	Characterization and humidity sensing of ZnO/42° YX LiTaO ₃ Love wave devices with ZnO nanorods. <i>Materials Research Bulletin</i> , 2013, 48, 5058-5063.	5.2	17

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55	Formation and Dissociation of Bamboo-like ErD ₂ /ErD ₃ Grains. <i>Journal of Materials Science and Technology</i> , 2013, 29, 1101-1103.	10.7	2
56	Enhancement of microfluidic efficiency with nanocrystalline diamond interlayer in the ZnO-based surface acoustic wave device. <i>Microfluidics and Nanofluidics</i> , 2013, 15, 377-386.	2.2	17
57	Love mode surface acoustic wave ultraviolet sensor using ZnO films deposited on 36° Y-cut LiTaO ₃ . <i>Sensors and Actuators A: Physical</i> , 2013, 193, 87-94.	4.1	44
58	Ab initio study of helium behavior in titanium tritides. <i>Computational Materials Science</i> , 2013, 69, 107-112.	3.0	19
59	Scaling effects on flow hydrodynamics of confined microdroplets induced by Rayleigh surface acoustic wave. <i>Microfluidics and Nanofluidics</i> , 2012, 13, 919-927.	2.2	18
60	Influence of growth parameters on the microstructures of erbium films deposited on Si(111) substrates. <i>Vacuum</i> , 2012, 86, 2075-2081.	3.5	3
61	Substrate-tilt angle effect on structural and optical properties of sputtered ZnO film. <i>Applied Surface Science</i> , 2012, 259, 747-753.	6.1	18
62	The effect of substrate temperature on the oxidation behavior of erbium thick films. <i>Vacuum</i> , 2012, 86, 1097-1101.	3.5	13
63	Progress of Helium Evolution in Aging Titanium Tritide Film. <i>Fusion Science and Technology</i> , 2011, 60, 905-909.	1.1	5
64	Recent developments on ZnO films for acoustic wave based bio-sensing and microfluidic applications: a review. <i>Sensors and Actuators B: Chemical</i> , 2010, 143, 606-619.	7.8	353