Xuyang Zhou

List of Publications by Year
in descending order

38 papers	841 citations	567144 15 h-index	501076 28 g-index
41 all docs	41 docs citations	41 times ranked	741 citing authors

#	Article	IF	Citations
1	Revealing in-plane grain boundary composition features through machine learning from atom probe tomography data. Acta Materialia, 2022, 226, 117633.	3.8	9
2	Understanding Alkali Contamination in Colloidal Nanomaterials to Unlock Grain Boundary Impurity Engineering. Journal of the American Chemical Society, 2022, 144, 987-994.	6.6	12
3	Reconstructing dual-phase nanometer scale grains within a pearlitic steel tip in 3D through 4D-scanning precession electron diffraction tomography and automated crystal orientation mapping. Ultramicroscopy, 2022, 238, 113536.	0.8	3
4	Beyond Solid Solution Highâ€Entropy Alloys: Tailoring Magnetic Properties via Spinodal Decomposition. Advanced Functional Materials, 2021, 31, 2007668.	7.8	51
5	A Novel Softâ€Magnetic B2â€Based Multiprincipalâ€Element Alloy with a Uniform Distribution of Coherent Bodyâ€Centeredâ€Cubic Nanoprecipitates. Advanced Materials, 2021, 33, e2006723.	11.1	46
6	The hidden structure dependence of the chemical life of dislocations. Science Advances, 2021, 7, .	4.7	24
7	Manipulation of solute partitioning mechanisms for nanocrystalline stability. Acta Materialia, 2021, 208, 116662.	3.8	13
8	Reconstructing grains in 3D through 4D Scanning Precession Electron Diffraction. Microscopy and Microanalysis, 2021, 27, 2494-2495.	0.2	2
9	Spinodal Decomposition in Nanocrystalline Alloys. Acta Materialia, 2021, 215, 117054.	3.8	29
10	Ultrastrong and Ductile Soft Magnetic Highâ€Entropy Alloys via Coherent Ordered Nanoprecipitates. Advanced Materials, 2021, 33, e2102139.	11.1	69
11	Under-stoichiometric cementite in decomposing binary Fe-C pearlite exposed to rolling contact fatigue. Acta Materialia, 2021, 216, 117144.	3.8	21
12	Convolutional neural network-assisted recognition of nanoscale L12 ordered structures in face-centred cubic alloys. Npj Computational Materials, 2021, 7, .	3.5	11
13	Aluminum depletion induced by co-segregation of carbon and boron in a bcc-iron grain boundary. Nature Communications, 2021, 12, 6008.	5.8	24
14	On the atomic solute diffusional mechanisms during compressive creep deformation of a Co-Al-W-Ta single crystal superalloy. Acta Materialia, 2020, 184, 86-99.	3.8	45
15	Complications of using thin film geometries for nanocrystalline thermal stability investigations. Journal of Materials Research, 2020, 35, 2087-2097.	1.2	0
16	Influence and comparison of contaminate partitioning on nanocrystalline stability in sputter-deposited and ball-milled Cuâ€"Zr alloys. Journal of Materials Science, 2020, 55, 16758-16779.	1.7	11
17	A Comparative Investigation Between Transmission Kikuchi Diffraction (TKD) and Precession Electron Diffraction (PED). Microscopy and Microanalysis, 2020, 26, 270-271.	0.2	1
18	Laser shocking of nanocrystalline materials: Revealing the extreme pressure effects on the microstructural stability and deformation response. Applied Physics Letters, 2020, 116, .	1.5	9

#	Article	IF	Citations
19	Stable microstructure in a nanocrystalline copperâ€“tantalum alloy during shock loading. Communications Materials, 2020, 1, .	2.9	3
20	Role of grain boundary character and its evolution on interfacial solute segregation behavior in nanocrystalline Ni-P. Acta Materialia, 2020, 190, 113-123.	3.8	40
21	Hierarchical phase separation behavior in a Ni-Si-Fe alloy. Acta Materialia, 2020, 195, 327-340.	3.8	5
22	Charge-State Field Evaporation Behavior in Cu(V) Nanocrystalline Alloys. Microscopy and Microanalysis, 2019, 25, 501-510.	0.2	4
23	Composition-dependent apparent activation-energy and sluggish grain-growth in high entropy alloys. Materials Research Letters, 2019, 7, 267-274.	4.1	25
24	The influence of alloying interactions on thin film growth stresses. Applied Surface Science, 2019, 463, 545-555.	3.1	3
25	In situ TEM observations of initial oxidation behavior in Fe-rich Fe-Cr alloys. Surface and Coatings Technology, 2019, 357, 332-338.	2.2	7
26	A molecular dynamics study on stress generation during thin film growth. Applied Surface Science, 2019, 469, 537-552.	3.1	30
27	Influence of solute partitioning on the microstructure and growth stresses in nanocrystalline Fe(Cr) thin films. Thin Solid Films, 2018, 648, 83-93.	0.8	5
28	Phase and microstructures in sputter deposited nanocrystalline Feâ€“Cr thin films. Materialia, 2018, 3, 295-303.	1.3	2
29	High permittivity behavior and microstructure in a two-phase barium-silicon titanate. Materialia, 2018, 1, 46-51.	1.3	2
30	Linking Experimental Solute Segregation Specificity in Nanocrystalline Alloys to Computational Predictions. Microscopy and Microanalysis, 2017, 23, 704-705.	0.2	0
31	Interrelationship of <i>in situ</i> growth stress evolution and phase transformations in Ti/W multilayered thin films. Journal of Applied Physics, 2016, 119, .	1.1	9
32	Grain Boundary Specific Segregation in Nanocrystalline Fe(Cr). Scientific Reports, 2016, 6, 34642.	1.6	56
33	Enhanced mechanical properties of pure copper with a mixture microstructure of nanocrystalline and ultrafine grains. Materials Letters, 2016, 185, 546-549.	1.3	17
34	Influence of Fe(Cr) miscibility on thin film grain size and stress. Thin Solid Films, 2016, 612, 29-35.	0.8	16
35	Amorphous-based Bâ€“Câ€“Mg thin films obtained through a composition design using cluster-plus-glue-atom model. Surface and Coatings Technology, 2014, 242, 14-19.	2.2	4
36	Fabrication and its characteristics of hard coating Ti-Al-N system prepared by DC magnetron sputtering. Rare Metals, 2012, 31, 178-182.	3.6	5

#	Article	IF	Citations
37	Mechanisms, models and methods of vapor deposition. Progress in Materials Science, 2001, 46, 329-377.	16.0	226
38	Comparison of Solute Partitioning between Nanocrystalline Sputtered Thin Films and Ball Milled Cu-Zr. SSRN Electronic Journal, 0, , .	0.4	0