Chen-Yang Lu

List of Publications by Year
in descending order

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56 papers	3,774 citations	201674 27 h-index	161849 54 g-index
56 all docs	56 docs citations	56 times ranked	2054 citing authors

#	Article	IF	Citations
1	Enhancing radiation tolerance by controlling defect mobility and migration pathways in multicomponent single-phase alloys. Nature Communications, 2016, 7, 13564.	12.8	533
2	Influence of chemical disorder on energy dissipation and defect evolution in concentrated solid solution alloys. Nature Communications, 2015, 6, 8736.	12.8	477
3	Mechanism of Radiation Damage Reduction in Equiatomic Multicomponent Single Phase Alloys. Physical Review Letters, 2016, 116, 135504.	7.8	359
4	A promising new class of irradiation tolerant materials: Ti2ZrHfV0.5Mo0.2 high-entropy alloy. Journal of Materials Science and Technology, 2019, 35, 369-373.	10.7	266
5	Effects of compositional complexity on the ion-irradiation induced swelling and hardening in Ni-containing equiatomic alloys. Scripta Materialia, 2016, 119, 65-70.	5.2	244
6	Radiation-induced segregation on defect clusters in single-phase concentrated solid-solution alloys. Acta Materialia, 2017, 127, 98-107.	7.9	212
7	Direct Observation of Defect Range and Evolution in Ion-Irradiated Single Crystalline Ni and Ni Binary Alloys. Scientific Reports, 2016, 6, 19994.	3.3	131
8	Point defect evolution in Ni, NiFe and NiCr alloys from atomistic simulations and irradiation experiments. Acta Materialia, 2015, 99, 69-76.	7.9	120
9	Influence of chemical disorder on energy dissipation and defect evolution in advanced alloys. Journal of Materials Research, 2016, 31, 2363-2375.	2.6	110
10	Shockwave generates < 100 > dislocation loops in bcc iron. Nature Communications, 2018, 9, 4880.	12.8	106
11	Influence of irradiation temperature on void swelling in NiCoFeCrMn and NiCoFeCrPd. Scripta Materialia, 2019, 158, 57-61.	5.2	74
12	Effects of Fe concentration on the ion-irradiation induced defect evolution and hardening in Ni-Fe solid solution alloys. Acta Materialia, 2016, 121, 365-373.	7.9	64
13	Features of primary damage by high energy displacement cascades in concentrated Ni-based alloys. Journal of Applied Physics, 2016, 119, .	2.5	59
14	Effect of alloying elements on defect evolution in Ni-20X binary alloys. Acta Materialia, 2018, 151, 159-168.	7.9	55
15	Microstructure of a 14Cr-ODS ferritic steel before and after helium ion implantation. Journal of Nuclear Materials, 2014, 455, 366-370.	2.7	53
16	CD13/Aminopeptidase N Is a Potential Therapeutic Target for Inflammatory Disorders. Journal of Immunology, 2020, 204, 3-11.	0.8	48
17	Enhanced void swelling in NiCoFeCrPd high-entropy alloy by indentation-induced dislocations. Materials Research Letters, 2018, 6, 584-591.	8.7	46
18	Distinct point defect behaviours in body-centered cubic medium-entropy alloy NbZrTi induced by severe lattice distortion. Acta Materialia, 2022, 229, 117806.	7.9	44

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19	The effect of injected interstitials on void formation in self-ion irradiated nickel containing concentrated solid solution alloys. Journal of Nuclear Materials, 2017, 488, 328-337.	2.7	43
20	Effect of spark plasma sintering temperature on microstructure and mechanical properties of 14Cr-ODS ferritic steels. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 660, 52-60.	5.6	42
21	Formation and growth of stacking fault tetrahedra in Ni via vacancy aggregation mechanism. Scripta Materialia, 2016, 114, 137-141.	5.2	42
22	Disorder in Mn+1AXn phases at the atomic scale. Nature Communications, 2019, 10, 622.	12.8	41
23	Microstructure of HIPed and SPSed 9Cr-ODS steel and its effect on helium bubble formation. Journal of Nuclear Materials, 2016, 474, 65-75.	2.7	39
24	Enhanced Radiation-tolerant Oxide Dispersion Strengthened Steel and its Microstructure Evolution under Helium-implantation and Heavy-ion Irradiation. Scientific Reports, 2017, 7, 40343.	3.3	34
25	Interstitial migration behavior and defect evolution in ion irradiated pure nickel and Ni-xFe binary alloys. Journal of Nuclear Materials, 2018, 509, 237-244.	2.7	34
26	Effects of ion irradiation on chromium coatings of various thicknesses on a zirconium alloy. Journal of Nuclear Materials, 2019, 526, 151740.	2.7	34
27	Microstructures and mechanical properties of 9Cr oxide dispersion strengthened steel produced by spark plasma sintering. Fusion Engineering and Design, 2017, 115, 67-73.	1.9	31
28	Effects of Y 2 O 3 , La 2 O 3 and CeO 2 additions on microstructure and mechanical properties of 14Cr-ODS ferrite alloys produced by spark plasma sintering. Fusion Engineering and Design, 2017, 121, 159-166.	1.9	30
29	Chemically-biased diffusion and segregation impede void growth in irradiated Ni-Fe alloys. Current Opinion in Solid State and Materials Science, 2019, 23, 92-100.	11.5	27
30	Microstructure of nano-structured ODS CLAM steel by mechanical alloying and hot isostatic pressing. Journal of Nuclear Materials, 2013, 442, S148-S152.	2.7	26
31	Investigation of defect clusters in ion-irradiated Ni and NiCo using diffuse X-ray scattering and electron microscopy. Journal of Nuclear Materials, 2016, 469, 153-161.	2.7	26
32	Effect of Y/Ti atomic ratio on microstructure of oxide dispersion strengthened alloys. Materials Characterization, 2017, 134, 35-40.	4.4	26
33	The effect of interstitial carbon atoms on defect evolution in high entropy alloys under helium irradiation. Acta Materialia, 2022, 233, 117955.	7.9	26
34	Effects of mechanical alloying time on microstructure and properties of 9Crâ€“ODS steels. Journal of Nuclear Materials, 2014, 455, 554-560.	2.7	25
35	Irradiation effects of medium-entropy alloy NiCoCr with and without pre-indentation. Journal of Nuclear Materials, 2019, 524, 60-66.	2.7	25
36	Current development of body-centered cubic high-entropy alloys for nuclear applications. Tungsten, 2021, 3, 197-217.	4.8	24

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37	Radiation-assisted chemical short-range order formation in high-entropy alloys. Scripta Materialia, 2022, 212, 114547.	5.2	24
38	From suppressed void growth to significant void swelling in NiCoFeCr complex concentrated solid-solution alloy. Materialia, 2020, 9, 100603.	2.7	22
39	Elucidating He-H assisted cavity evolution in alpha Cr under multiple ion beam irradiation. Scripta Materialia, 2020, 187, 291-295.	5.2	18
40	Tunable mechanical property and strain hardening behavior of a single-phase CoFeNi2V0.5Mo0.2 high entropy alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 776, 139027.	5.6	16
41	Crossover from disordered to core-shell structures of nano-oxide Y2O3 dispersed particles in Fe. Applied Physics Letters, 2016, 109, .	3.3	15
42	TiN films fabricated by reactive gas pulse sputtering: A hybrid design of multilayered and compositionally graded structures. Applied Surface Science, 2016, 389, 255-259.	6.1	13
43	Current state and prospect on the development of advanced nuclear fuel system materials: A review. Materials Reports Energy, 2021, 1, 100007.	3.2	12
44	Angiogenic and Arthritogenic Properties of the Soluble Form of CD13. Journal of Immunology, 2019, 203, 360-369.	0.8	11
45	High radiation tolerance of an ultrastrong nanostructured NiCoCr alloy with stable dispersed nanooxides and fine grain structure. Journal of Nuclear Materials, 2021, 557, 153316.	2.7	11
46	Indentation behaviour of ion-irradiated X-750 Ni-based superalloy. Philosophical Magazine Letters, 2017, 97, 101-109.	1.2	10
47	Improved irradiation tolerance of reactive gas pulse sputtered TiN coatings with a hybrid architecture of multilayered and compositionally graded structures. Journal of Nuclear Materials, 2018, 501, 388-397.	2.7	8
48	Multi-axial and multi-energy channeling study of disorder evolution in ion-irradiated nickel. Journal of Nuclear Materials, 2019, 525, 92-101.	2.7	8
49	PREPARATION AND CHARACTERIZATION OF NANO-STRUCTURED 14Cr-ODS FERRITIC STEEL. Jinshu Xuebao/Acta Metallurgica Sinica, 2012, 48, 649.	0.3	8
50	Improved irradiation tolerance of W thin films with homogeneously multilayered structure. Surface and Coatings Technology, 2017, 313, 230-235.	4.8	7
51	Highly stable nanocrystalline oxide dispersion strengthened alloys with outstanding helium bubble suppression. Journal of Nuclear Materials, 2021, 557, 153283.	2.7	7
52	Soluble CD13 induces inflammatory arthritis by activating the bradykinin receptor B1. Journal of Clinical Investigation, 2022, 132, .	8.2	6
53	Preface to the special issue on high entropy materials and tungsten-based nuclear materials. Tungsten, 2021, 3, 117-118.	4.8	1
54	Effect of Carbon on Dislocation Loops Formation during Self-Ion Irradiation in Fe-Cr Alloys at High Temperatures. Materials, 2022, 15, 2211.	2.9	1

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55	Influence of Milling Time on Morphology and Properties of Precursor Powders for 9Cr Oxide Dispersion Strengthened Steel. Advanced Materials Research, 2014, 887-888, 219-222.	0.3	0
56	Formation of Bubble-Loop Complexes During Helium Radiation in Fe-9Cr Steel. Frontiers in Energy Research, 2021, 9, .	2.3	0