

Shilei Li

List of Publications by Year in descending order

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73
papers

1,270
citations

393982

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414034

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74
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74
times ranked

906
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#	ARTICLE	IF	CITATIONS
1	Unprecedented non-hysteretic superelasticity of [001]-oriented NiCoFeGa single crystals. <i>Nature Materials</i> , 2020, 19, 712-718.	13.3	95
2	Microstructure evolution and impact fracture behaviors of Z3CN20-09M stainless steels after long-term thermal aging. <i>Journal of Nuclear Materials</i> , 2013, 433, 41-49.	1.3	86
3	G-phase precipitation in duplex stainless steels after long-term thermal aging: A high-resolution transmission electron microscopy study. <i>Journal of Nuclear Materials</i> , 2014, 452, 382-388.	1.3	73
4	Annealing induced recovery of long-term thermal aging embrittlement in a duplex stainless steel. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2013, 564, 85-91.	2.6	68
5	Microstructures and mechanical properties of cast austenite stainless steels after long-term thermal aging at low temperature. <i>Materials & Design</i> , 2013, 50, 886-892.	5.1	66
6	Non-uniform phase separation in ferrite of a duplex stainless steel. <i>Acta Materialia</i> , 2017, 140, 388-397.	3.8	49
7	Local lattice distortion mediated formation of stacking faults in Mg alloys. <i>Acta Materialia</i> , 2019, 170, 231-239.	3.8	45
8	A novel medium-Mn steel with superior mechanical properties and marginal oxidization after press hardening. <i>Acta Materialia</i> , 2021, 205, 116567.	3.8	45
9	Deformation-induced martensitic transformation kinetics and correlative micromechanical behavior of medium-Mn transformation-induced plasticity steel. <i>Journal of Materials Science and Technology</i> , 2019, 35, 1779-1786.	5.6	41
10	Effects of ferrite content on the mechanical properties of thermal aged duplex stainless steels. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2015, 625, 186-193.	2.6	37
11	Microstructural evolution in 316LN austenitic stainless steel during solidification process under different cooling rates. <i>Journal of Materials Science</i> , 2016, 51, 2529-2539.	1.7	36
12	Evaluation of hardening behaviors in ion-irradiated Fe-9Cr and Fe-20Cr alloys by nanoindentation technique. <i>Journal of Nuclear Materials</i> , 2016, 478, 50-55.	1.3	34
13	Evolution of cellular dislocation structures and defects in additively manufactured austenitic stainless steel under ion irradiation. <i>Scripta Materialia</i> , 2020, 178, 245-250.	2.6	33
14	Design and thermomechanical properties of a γ precipitate-strengthened Ni-based superalloy with high entropy γ matrix. <i>Journal of Alloys and Compounds</i> , 2019, 792, 550-560.	2.8	32
15	Mechanical behavior in boron-microalloyed CoCrNi medium-entropy alloy studied by in situ high-energy X-ray diffraction. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020, 788, 139600.	2.6	32
16	Investigations of deformation-induced β phase transformation in zirconium hydride by in situ high-energy X-ray diffraction. <i>Acta Materialia</i> , 2017, 140, 168-175.	3.8	30
17	Ensuring the strength and ductility synergy in an austenitic stainless steel: single- or multi-phase hetero-structures design. <i>Scripta Materialia</i> , 2021, 193, 81-85.	2.6	30
18	Enhanced creep resistance induced by minor Ti additions to a second generation nickel-based single crystal superalloy. <i>Acta Materialia</i> , 2022, 232, 117938.	3.8	26

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19	Strain states and unique properties in cold-rolled TiNi shape memory alloys. <i>Acta Materialia</i> , 2022, 231, 117890.	3.8	24
20	Effects of long-term thermal aging on the stress corrosion cracking behavior of cast austenitic stainless steels in simulated PWR primary water. <i>Journal of Nuclear Materials</i> , 2016, 469, 262-268.	1.3	20
21	Unveiling the origins of work-hardening enhancement and mechanical instability in laser shock peened titanium. <i>Acta Materialia</i> , 2022, 229, 117810.	3.8	18
22	Achieving excellent superelasticity and extraordinary elastocaloric effect in a directionally solidified Co-V-Ga alloy. <i>Scripta Materialia</i> , 2021, 204, 114123.	2.6	17
23	Probabilistic fracture mechanics analysis of thermally aged nuclear piping in a pressurized water reactor. <i>Nuclear Engineering and Design</i> , 2013, 265, 611-618.	0.8	16
24	Effects of prior solution treatment on thermal aging behavior of duplex stainless steels. <i>Journal of Nuclear Materials</i> , 2013, 441, 337-342.	1.3	15
25	Tensile behaviour of 316LN stainless steel at elevated temperatures. <i>Materials at High Temperatures</i> , 2014, 31, 198-203.	0.5	15
26	Effects of Ni content on the microstructures, mechanical properties and thermal aging embrittlement behaviors of Fe-20Cr-xNi alloys. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2015, 639, 640-646.	2.6	15
27	Phase-field simulation of multi-phase interactions in Fe-C peritectic solidification. <i>Computational Materials Science</i> , 2020, 171, 109220.	1.4	15
28	In situ neutron diffraction study of a new type of stress-induced confined martensitic transformation in Fe ₂₂ Co ₂₀ Ni ₁₉ Cr ₂₀ Mn ₁₂ Al ₇ high-entropy alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020, 771, 138555.	2.6	15
29	Pitting behavior of thermally aged Z3CN20.09M cast stainless steel for primary coolant pipe of nuclear power plant. <i>Engineering Failure Analysis</i> , 2018, 83, 1-8.	1.8	13
30	Hydrogen embrittlement behaviors of additive manufactured maraging steel investigated by in situ high-energy X-ray diffraction. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019, 766, 138341.	2.6	13
31	A brittle fracture mechanism in thermally aged duplex stainless steels revealed by in situ high-energy X-ray diffraction. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019, 739, 264-271.	2.6	13
32	Study of Static Recrystallization Behavior of a Nitrogen-Alloyed Ultralow Carbon Austenitic Stainless Steel by Experiment and Simulation. <i>Journal of Materials Engineering and Performance</i> , 2015, 24, 4346-4357.	1.2	12
33	Deformation behavior of thermal aged duplex stainless steels studied by nanoindentation, EBSD and TEM. <i>Materials at High Temperatures</i> , 2016, 33, 15-23.	0.5	11
34	In Situ Observation of the Deformation and Fracture Behaviors of Long-Term Thermally Aged Cast Duplex Stainless Steels. <i>Metals</i> , 2019, 9, 258.	1.0	11
35	Enhanced cyclability of superelasticity and elastocaloric effect in Cu and B co-doped Co-Ni-Ga shape memory alloys. <i>Journal of Alloys and Compounds</i> , 2022, 918, 165633.	2.8	11
36	Effects of long term thermal aging on high temperature tensile deformation behaviours of duplex stainless steels. <i>Materials at High Temperatures</i> , 2015, 32, 524-529.	0.5	10

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37	Effect of thermal aging on the fatigue crack growth behavior of cast duplex stainless steels. International Journal of Minerals, Metallurgy and Materials, 2015, 22, 1163-1170.	2.4	9
38	Investigation of ion irradiation hardening behaviors of tempered and long-term thermal aged T92 steel. Journal of Nuclear Materials, 2018, 511, 191-199.	1.3	9
39	Development of Intergranular Residual Stress and Its Implication to Mechanical Behaviors at Elevated Temperatures in AL6XN Austenitic Stainless Steel. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2018, 49, 3237-3246.	1.1	8
40	In situ investigation of the deformation behaviors of Fe ₂₀ Co ₃₀ Cr ₂₅ Ni ₂₅ and Fe ₂₀ Co ₃₀ Cr ₃₀ Ni ₂₀ high entropy alloys by high-energy X-ray diffraction. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 795, 139936.	2.6	8
41	Effect of thermal aging on the leak-before-break analysis of nuclear primary pipes. Nuclear Engineering and Design, 2014, 280, 493-500.	0.8	7
42	Influence of Initial Microstructures on Deformation Behavior of 316LN Austenitic Steels at 400-900°C. Journal of Materials Engineering and Performance, 2015, 24, 694-699.	1.2	7
43	Nano-Deformation Behavior of a Thermally Aged Duplex Stainless Steel Investigated by Nanoindentation, FIB and TEM. Journal of Materials Engineering and Performance, 2018, 27, 4714-4721.	1.2	7
44	Effects of thermal aging temperature and Cr content on phase separation kinetics in Fe-Cr alloys simulated by the phase field method. International Journal of Minerals, Metallurgy and Materials, 2013, 20, 1067-1075.	2.4	6
45	Characterization of Impact Deformation Behavior of a Thermally Aged Duplex Stainless Steel by EBSD. Acta Metallurgica Sinica (English Letters), 2018, 31, 798-806.	1.5	6
46	Surface Integrity and Oxidation of a Powder Metallurgy Ni-Based Superalloy Treated by Laser Shock Peening. Jom, 2020, 72, 1803-1810.	0.9	6
47	EFFECT OF LONG TERM AGING ON THE MICROSTRUCTURE AND MECHANICAL PROPERTIES OF CAST AUSTENITIC STAINLESS STEELS. Jinshu Xuebao/Acta Metallurgica Sinica, 2011, 46, 1186-1191.	0.3	6
48	Effects of Tempering Temperature on the Microstructure and Mechanical Properties of T92 Heat-Resistant Steel. Metals, 2019, 9, 194.	1.0	5
49	Proton irradiation induced defects in T92 steels: An investigation by TEM and positron annihilation spectroscopy. Nuclear Instruments & Methods in Physics Research B, 2019, 442, 59-66.	0.6	5
50	Microscopic stress and crystallographic orientation of hydrides precipitated in Zr-1Nb-0.01Cu cladding tube investigated by high-energy X-ray diffraction and EBSD. Journal of Nuclear Materials, 2020, 542, 152534.	1.3	5
51	Effect of Al addition on the microstructures and deformation behaviors of non-equiatomic FeMnCoCr metastable high entropy alloys. Applied Physics Letters, 2021, 119, .	1.5	5
52	Influence of warm rolling temperature on multi-scale lamellar structure and mechanical properties of medium carbon steel. Journal of Materials Research and Technology, 2022, 18, 3739-3750.	2.6	5
53	Influence of Mo Additions on the Mechanical Properties of Cast Duplex Stainless Steels before and after Thermal Aging. Metals, 2019, 9, 295.	1.0	4
54	Formation and characterization of circular δ -hydride in Zircaloy-4 under ion irradiation. Journal of Nuclear Materials, 2019, 513, 1-7.	1.3	4

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55	External-Field-Induced Phase Transformation and Associated Properties in a Ni ₅₀ Mn ₃₄ Fe ₃ In ₁₃ Metamagnetic Shape Memory Wire. <i>Metals</i> , 2021, 11, 309.	1.0	4
56	Micromechanical Behaviors of Fe ₂₀ Co ₃₀ Cr ₂₅ Ni ₂₅ High Entropy Alloys with Partially and Completely Recrystallized Microstructures Investigated by In-Situ High-Energy X-ray Diffraction. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2021, 52, 3674-3683.	1.1	4
57	Morphology and microstructure evolution of surface hydride in zirconium alloys during hydrogen desorption process. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 24247-24255.	3.8	4
58	Effects of long-term thermal aging on the microstructure and mechanical behaviors of 16MND5/Alloy 152 dissimilar metal weld. <i>Journal of Materials Research and Technology</i> , 2022, , .	2.6	4
59	Leak-before-break analysis of thermally aged nuclear pipe under different bending moments. <i>Nuclear Engineering and Technology</i> , 2015, 47, 712-718.	1.1	3
60	Characterization of Plastic Deformation Behavior of a Thermally Aged Duplex Stainless Steel. <i>Journal of Materials Engineering and Performance</i> , 2017, 26, 2814-2825.	1.2	3
61	Effects of Thermal Aging on the Low Cycle Fatigue Behaviors of Cast Duplex Stainless Steels. <i>Metals</i> , 2019, 9, 378.	1.0	3
62	The Application of Chemical Polishing in TEM Sample Preparation of Zirconium Alloys. <i>Materials</i> , 2020, 13, 1036.	1.3	3
63	Stress-induced reorientation of hydrides in Zr-1Nb-0.01Cu cladding tube studied by synchrotron X-ray diffraction and EBSD. <i>Journal of Nuclear Materials</i> , 2022, 558, 153374.	1.3	3
64	Ultra-wide-temperature-range superelasticity and intrinsic two-way shape memory effect in Co-Ni-Ga microwires. <i>Applied Physics Letters</i> , 2022, 120, 151903.	1.5	2
65	Multifunctional properties in both three and one-dimensional polycrystalline Cu-doped Co-Ni-Ga shape memory alloys. <i>Journal of Materials Research and Technology</i> , 2022, 19, 617-627.	2.6	2
66	The characterization of FIB-induced H ₂ -hydride in pure zirconium by HRTEM. <i>Materials Letters</i> , 2022, 320, 132338.	1.3	1
67	Thermal Aging of Primary Circuit Piping Materials in PWR Nuclear Power Plant. <i>Materials Research Society Symposia Proceedings</i> , 2009, 1215, 1.	0.1	0
68	Hot Tensile Deformation and Fracture Behavior of a Nitrogen Alloyed Ultralow Carbon Austenitic Stainless Steel. <i>Materials Transactions</i> , 2015, 56, 1984-1991.	0.4	0
69	Effect of Thermal Aging on Microstructural Evolution in Ferrite of Duplex Stainless Steel in Nuclear Power Plant Applications. <i>Materials Science Forum</i> , 0, 898, 818-825.	0.3	0
70	Micromechanical behaviors related to confined deformation in pure titanium. <i>MATEC Web of Conferences</i> , 2020, 321, 12018.	0.1	0
71	Achieving Excellent Superelasticity and Extraordinary Elastocaloric Effect in a Directionally Solidified Co-V-Ga Alloy. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
72	THE MICROSTRUCTURE AND TENSILE FRACTURE BEHAVIOR OF LONG TERM THERMAL AGED Z3CN20-09M STAINLESS STEEL. <i>Jinshu Xuebao/Acta Metallurgica Sinica</i> , 2013, 49, 175.	0.3	0

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73	Study on LBB Behavior of Nuclear Primary Pipes After Long-Term Thermal Aging. , 2014, , 501-508.		0