Sichuang Xue

List of Publications by Year
in descending order

59 papers	2,011 citations	201674 27 h-index	254184 43 g-index
60 all docs	60 docs citations	60 times ranked	1744 citing authors

#	Article	IF	Citations
1	Making g-C3N4 ultra-thin nanosheets active for photocatalytic overall water splitting. Applied Catalysis B: Environmental, 2021, 282, 119557.	20.2	121
2	Composition-dependent crystal structure and martensitic transformation in Heusler Niâ€“Mnâ€“Sn alloys. Acta Materialia, 2013, 61, 4648-4656.	7.9	102
3	Highâ€Strength Nanotwinned Al Alloys with 9R Phase. Advanced Materials, 2018, 30, 1704629.	21.0	93
4	High temperature deformability of ductile flash-sintered ceramics via in-situ compression. Nature Communications, 2018, 9, 2063.	12.8	87
5	Nanoscale stacking faultâ€“assisted room temperature plasticity in flash-sintered TiO ₂. Science Advances, 2019, 5, eaaw5519.	10.3	82
6	Surface Functionalization of Layered Molybdenum Disulfide for the Selective Detection of Volatile Organic Compounds at Room Temperature. ACS Applied Materials & Interfaces, 2019, 11, 34135-34143.	8.0	79
7	Mechanical behavior of structurally gradient nickel alloy. Acta Materialia, 2018, 149, 57-67.	7.9	70
8	High-velocity projectile impact induced 9R phase in ultrafine-grained aluminium. Nature Communications, 2017, 8, 1653.	12.8	66
9	Martensitic transformation in rapidly solidified Heusler Ni49Mn39Sn12 ribbons. Acta Materialia, 2011, 59, 5692-5699.	7.9	63
10	Unusual size dependent strengthening mechanisms of Cu/amorphous CuNb multilayers. Acta Materialia, 2016, 120, 327-336.	7.9	61
11	Atomic ordering effect in Ni50Mn37Sn13 magnetocaloric ribbons. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 534, 568-572.	5.6	59
12	Tailoring the strength and ductility of T91 steel by partial tempering treatment. Acta Materialia, 2019, 169, 209-224.	7.9	59
13	Comparison of size dependent strengthening mechanisms in Ag/Fe and Ag/Ni multilayers. Acta Materialia, 2016, 114, 154-163.	7.9	56
14	Size dependent strengthening in high strength nanotwinned Al/Ti multilayers. Acta Materialia, 2019, 175, 466-476.	7.9	56
15	The formation mechanisms of growth twins in polycrystalline Al with high stacking fault energy. Acta Materialia, 2015, 101, 62-70.	7.9	48
16	Microstructure and mechanical behavior of nanotwinned AlTi alloys with 9R phase. Scripta Materialia, 2018, 148, 5-9.	5.2	48
17	High temperature thermal and mechanical stability of high-strength nanotwinned Al alloys. Acta Materialia, 2019, 165, 142-152.	7.9	45
18	In situ heavy ion irradiation studies of nanopore shrinkage and enhanced radiation tolerance of nanoporous Au. Scientific Reports, 2017, 7, 39484.	3.3	37

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19	Texture-directed twin formation propensity in Al with high stacking fault energy. Acta Materialia, 2018, 144, 226-234.	7.9	36
20	Self-assembled vertically aligned Ni nanopillars in CeO₂ with anisotropic magnetic and transport properties for energy applications. Nanoscale, 2018, 10, 17182-17188.	5.6	34
21	Thick grain boundary induced strengthening in nanocrystalline Ni alloy. Nanoscale, 2019, 11, 23449-23458.	5.6	34
22	High strength, deformable nanotwinned Alâ€“Co alloys. Materials Research Letters, 2019, 7, 33-39.	8.7	32
23	Ultra-strong nanotwinned Alâ€“Ni solid solution alloys with significant plasticity. Nanoscale, 2018, 10, 22025-22034.	5.6	30
24	Strain-induced suppression of the miscibility gap in nanostructured Mg₂Siâ€“Mg₂Sn solid solutions. Journal of Materials Chemistry A, 2018, 6, 17559-17570.	10.3	30
25	Characterization of precipitation in gradient Inconel 718 superalloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 804, 140718.	5.6	30
26	Superior twin stability and radiation resistance of nanotwinned Ag solid solution alloy. Acta Materialia, 2018, 151, 395-405.	7.9	27
27	Deformation mechanisms in FCC Co dominated by high-density stacking faults. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 736, 12-21.	5.6	27
28	9R phase enabled superior radiation stability of nanotwinned Cu alloys via in situ radiation at elevated temperature. Acta Materialia, 2019, 167, 248-256.	7.9	27
29	Hierarchical nanotwins in single-crystal-like nickel with high strength and corrosion resistance producedviaa hybrid technique. Nanoscale, 2020, 12, 1356-1365.	5.6	27
30	Response of solidification cellular structures in additively manufactured 316 stainless steel to heavy ion irradiation: anin situstudy. Materials Research Letters, 2019, 7, 290-297.	8.7	26
31	Layer thickness dependent strain rate sensitivity of Cu/amorphous CuNb multilayer. Applied Physics Letters, 2017, 110, .	3.3	25
32	Deformation behavior and phase transformation of nanotwinned Al/Ti multilayers. Applied Surface Science, 2020, 527, 146776.	6.1	25
33	â€œDuctileâ€•Fracture of Metallic Glass Nanolaminates. Advanced Materials Interfaces, 2017, 4, 1700510.	3.7	24
34	Ultra-high strength and plasticity mediated by partial dislocations and defect networks: Part I: Texture effect. Acta Materialia, 2020, 185, 181-192.	7.9	24
35	Thermal stability and deformability of annealed nanotwinned Al/Ti multilayers. Scripta Materialia, 2020, 186, 219-224.	5.2	24
36	Plastic anisotropy and tension-compression asymmetry in nanotwinned Alâ€“Fe alloys: An in-situ micromechanical investigation. International Journal of Plasticity, 2020, 132, 102760.	8.8	21

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37	Coupled solute effects enable anomalous high-temperature strength and stability in nanotwinned Al alloys. Acta Materialia, 2020, 200, 378-388.	7.9	19
38	Comparison of temperature dependent deformation mechanisms of 8YSZ thermal barrier coatings prepared by air-plasma-spray and D-gun thermal spray: An in situ study. Journal of the European Ceramic Society, 2019, 39, 3120-3128.	5.7	18
39	Athermal nature of the martensitic transformation in Heusler alloy Niâ€“Mnâ€“Sn. Intermetallics, 2013, 36, 90-95.	3.9	17
40	Tailoring plasticity of metallic glasses via interfaces in Cu/amorphous CuNb laminates. Journal of Materials Research, 2017, 32, 2680-2689.	2.6	17
41	Microstructural evolution of nanotwinned Al-Zr alloy with significant 9R phase. Materials Research Letters, 2021, 9, 91-98.	8.7	16
42	Heavy ion irradiation response of an additively manufactured 316LN stainless steel. Journal of Nuclear Materials, 2021, 546, 152745.	2.7	16
43	On the explanation for the time-dependence of B2 to R martensitic transformation in Ti50Ni47Fe3 shape memory alloy. Materials Letters, 2012, 72, 119-121.	2.6	15
44	Strengthening mechanisms and deformability of nanotwinned AlMg alloys. Journal of Materials Research, 2018, 33, 3739-3749.	2.6	15
45	In-situ high temperature micromechanical testing of ultrafine grained yttria-stabilized zirconia processed by spark plasma sintering. Acta Materialia, 2018, 155, 128-137.	7.9	14
46	An in situ study on Kr ionâ€“irradiated crystalline Cu/amorphous-CuNb nanolaminates. Journal of Materials Research, 2019, 34, 2218-2228.	2.6	14
47	In-situ studies on the mechanical properties of He ion irradiated nanotwinned Ag. Journal of Nuclear Materials, 2020, 540, 152392.	2.7	14
48	High-strength nanocrystalline intermetallics with room temperature deformability enabled by nanometer thick grain boundaries. Science Advances, 2021, 7, .	10.3	13
49	Design of super-strong and thermally stable nanotwinned Al alloys via solute synergy. Nanoscale, 2020, 12, 20491-20505.	5.6	12
50	Achieving ferromagnetic insulating properties in La_{0.9}Ba_{0.1}MnO₃ thin films through nanoengineering. Nanoscale, 2020, 12, 9255-9265.	5.6	12
51	First-principles calculations for understanding microstructures and mechanical properties of co-sputtered Al alloys. Nanoscale, 2021, 13, 14987-15001.	5.6	11
52	Tailoring the formation of twins in Al by introducing epitaxial layer interfaces. Scripta Materialia, 2021, 192, 1-6.	5.2	10
53	High-strength and tunable plasticity in sputtered Alâ€“Cr alloys with multistage phase transformations. International Journal of Plasticity, 2021, 137, 102915.	8.8	9
54	Particle-based hematite crystallization is invariant to initial particle morphology. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2112679119.	7.1	9

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55	Ultra-high strength and plasticity mediated by partial dislocations and defect networks: Part II: Layer thickness effect. Acta Materialia, 2021, 204, 116494.	7.9	7
56	Thermal Stability of Nanocrystalline Gradient Inconel 718 Alloy. Crystals, 2021, 11, 53.	2.2	5
57	Epitaxial nanotwinned metals and alloys: synthesis-twin structureâ€“property relations. CrystEngComm, 2021, 23, 6637-6649.	2.6	5
58	Rapidly directional solidification of highly undercooled Niâ€“Feâ€“Ga shape memory alloy melts. Journal of Alloys and Compounds, 2011, 509, 8333-8336.	5.5	4
59	Effect of deformation on the martensitic transformation of TiNi melt-spun ribbons. Journal of Alloys and Compounds, 2013, 561, 180-183.	5.5	4