Wei-Zhong Han

List of Publications by Year
in descending order

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47	1,777	304743	265206
papers	citations	22 h-index	42 g-index

47	47	47	1443
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Design of Radiation Tolerant Materials Via Interface Engineering. Advanced Materials, 2013, 25, 6975-6979.	21.0	307
2	High-strength and thermally stable bulk nanolayered composites due to twin-induced interfaces. Nature Communications, 2013, 4, 1696.	12.8	298
3	Radiation-Induced Helium Nanobubbles Enhance Ductility in Submicron-Sized Single-Crystalline Copper. Nano Letters, 2016, 16, 4118-4124.	9.1	102
4	Liquid-Like, Self-Healing Aluminum Oxide during Deformation at Room Temperature. Nano Letters, 2018, 18, 2492-2497.	9.1	91
5	Radiation-Induced Helium Bubbles in Metals. Materials, 2019, 12, 1036.	2.9	71
6	From â€œSmaller is Strongerâ€• to â€œSizeâ€‐Independent Strength Plateauâ€• Towards Measuring the Ideal Strength of Iron. Advanced Materials, 2015, 27, 3385-3390.	21.0	62
7	Nanobubble Fragmentation and Bubble-Free-Channel Shear Localization in Helium-Irradiated Submicron-Sized Copper. Physical Review Letters, 2016, 117, 215501.	7.8	61
8	Defect-interface interactions in irradiated Cu/Ag nanocomposites. Acta Materialia, 2018, 160, 211-223.	7.9	61
9	Mechanism of hardening and damage initiation in oxygen embrittlement of body-centred-cubic niobium. Acta Materialia, 2019, 168, 331-342.	7.9	60
10	Irradiation damage of single crystal, coarse-grained, and nanograined copper under helium bombardment at 450 Â°C. Journal of Materials Research, 2013, 28, 2763-2770.	2.6	53
11	Hierarchical microstructures enabled excellent low-temperature strength-ductility synergy in bulk pure tungsten. Acta Materialia, 2022, 228, 117765.	7.9	51
12	Relative mobility of screw versus edge dislocations controls the ductile-to-brittle transition in metals. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	35
13	Mechanism of brittle-to-ductile transition in tungsten under small-punch testing. Acta Materialia, 2021, 220, 117332.	7.9	30
14	Hierarchical 3D Nanolayered Duplex-Phase Zr with High Strength, Strain Hardening, and Ductility. Physical Review Letters, 2019, 122, 255501.	7.8	29
15	Small-volume aluminum alloys with native oxide shell deliver unprecedented strength and toughness. Acta Materialia, 2017, 126, 202-209.	7.9	28
16	Oxygen solutes induced anomalous hardening, toughening and embrittlement in body-centered cubic vanadium. Acta Materialia, 2020, 196, 122-132.	7.9	27
17	Comparative study of radiation defects in ion irradiated bulk and thin-foil tungsten. Acta Materialia, 2020, 186, 162-171.	7.9	26
18	Achieving room-temperature brittle-to-ductile transition in ultrafine layered Fe-Al alloys. Science Advances, 2020, 6, .	10.3	26

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19	Designing solid solution hardening to retain uniform ductility while quadrupling yield strength. Acta Materialia, 2019, 179, 107-118.	7.9	25
20	Effect of ordered helium bubbles on deformation and fracture behavior of Î±-Zr. Journal of Materials Science and Technology, 2019, 35, 1466-1472.	10.7	25
21	Helium Nanobubbles Enhance Superelasticity and Retard Shear Localization in Small-Volume Shape Memory Alloy. Nano Letters, 2017, 17, 3725-3730.	9.1	24
22	Two-dimensional vacancy platelets as precursors for basal dislocation loops in hexagonal zirconium. Nature Communications, 2020, 11, 5766.	12.8	23
23	Helium bubbles enhance strength and ductility in small-volume Al-4Cu alloys. Scripta Materialia, 2019, 165, 112-116.	5.2	22
24	Design of high strength and wear-resistance Î²-Ti alloy via oxygen-charging. Acta Materialia, 2022, 227, 117686.	7.9	22
25	Atomic-Scale Hidden Point-Defect Complexes Induce Ultrahigh-Irradiation Hardening in Tungsten. Nano Letters, 2021, 21, 5798-5804.	9.1	21
26	Deformation of small-volume Al-4Cu alloy under electron beam irradiation. Acta Materialia, 2017, 141, 183-192.	7.9	20
27	Cracking behavior of helium-irradiated small-volume copper. Scripta Materialia, 2018, 147, 1-5.	5.2	20
28	Helium irradiation-induced ultrahigh hardening in niobium. Acta Materialia, 2022, 226, 117656.	7.9	19
29	Precipitation characteristics and distributions of subsurface hydrides in zirconium. Acta Materialia, 2021, 216, 117146.	7.9	15
30	Bi-metal interface-mediated defects distribution in neon ion bombarded Cu/Ag nanocomposites. Scripta Materialia, 2019, 171, 1-5.	5.2	13
31	Twin hopping in nanolayered Zr-2.5Nb. Materials Research Letters, 2020, 8, 307-313.	8.7	12
32	Interface-facilitated stable plasticity in ultra-fine layered FeAl/FeAl2 micro-pillar at high temperature. Journal of Materials Science and Technology, 2021, 73, 61-65.	10.7	10
33	A Comparative Study of Microstructures and Mechanical Behavior of Laser Metal Deposited and Electron Beam Melted Ti-6Al-4V. Journal of Materials Engineering and Performance, 2022, 31, 542-551.	2.5	10
34	In Situ Study of Deformation Twinning and Detwinning in Helium Irradiated Smallâ€Volume Copper. Advanced Engineering Materials, 2017, 19, 1700357.	3.5	9
35	Graphene-coated tungsten nanowires deliver unprecedented modulus and strength. Materials Research Letters, 2019, 7, 47-52.	8.7	9
36	Revealing the Dynamics of Helium Bubbles Using In Situ Techniques. Jom, 2020, 72, 2352-2362.	1.9	7

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37	In-situ study of initiation and extension of nano-thick defect-free channels in irradiated nickel. Journal of Materials Science and Technology, 2020, 58, 114-119.	10.7	7
38	Interfaces Reduce Dislocation Loop Formation in Irradiated Nanolayered Zr-2.5Nb. Scripta Materialia, 2021, 200, 113902.	5.2	7
39	Effect of external stress on hydride reorientation in zirconium. Acta Materialia, 2022, 235, 118100.	7.9	7
40	Revealing the synergistic effect of invisible helium clusters in helium irradiation hardening in tungsten. Scripta Materialia, 2022, 219, 114850.	5.2	6
41	Enhanced oxidation resistance in refractory niobium by surface Ti+/Si+ implantation. Corrosion Science, 2020, 163, 108297.	6.6	5
42	Transmission electron microscopy characterization of dislocation loops in irradiated zirconium. Tungsten, 2021, 3, 470-481.	4.8	5
43	Mechanism of interaction between interface and radiation defects in metal. Wuli Xuebao/Acta Physica Sinica, 2019, 68, 137901.	0.5	4
44	Dislocationâ€Mediated Hydride Precipitation in Zirconium. Small, 2022, 18, e2105881.	10.0	4
45	Texture evolution and temperature-dependent deformation modes in ambient- and cryogenic-rolled nanolayered Zr-2.5Nb. Acta Materialia, 2022, 234, 118023.	7.9	4
46	Fracture Along Deformation Twin Boundary in Smallâ€Volume Fe 40 Mn 40 Co 10 Cr 10 High Entropy Alloy. Advanced Engineering Materials, 2019, 21, 1801266.	3.5	2
47	Thermal stable hierarchical 3D nanolayered Zr-2.5Nb. Journal of Materials Research, 2021, 36, 2630-2638.	2.6	2