

Kui Du

List of Publications by Year in descending order

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81
papers

2,517
citations

186265

28
h-index

206112

48
g-index

82
all docs

82
docs citations

82
times ranked

3256
citing authors

#	ARTICLE	IF	CITATIONS
1	Discrete plasticity in sub-10-nm-sized gold crystals. <i>Nature Communications</i> , 2010, 1, 144.	12.8	289
2	Single-wall carbon nanotube network enabled ultrahigh sulfur-content electrodes for high-performance lithium-sulfur batteries. <i>Nano Energy</i> , 2017, 42, 205-214.	16.0	183
3	Effects of oxygen vacancies on the electrochemical performance of tin oxide. <i>Journal of Materials Chemistry A</i> , 2013, 1, 1536-1539.	10.3	125
4	Transition of dislocation nucleation induced by local stress concentration in nanotwinned copper. <i>Nature Communications</i> , 2015, 6, 7648.	12.8	112
5	Deformation-induced structural transition in body-centred cubic molybdenum. <i>Nature Communications</i> , 2014, 5, 3433.	12.8	95
6	Microstructure of Carbides at Grain Boundaries in Nickel Based Superalloys. <i>Journal of Materials Science and Technology</i> , 2012, 28, 1031-1038.	10.7	79
7	A modified sol-gel process for multiferroic nanocomposite films. <i>Journal of Applied Physics</i> , 2007, 102, .	2.5	78
8	Synthesis and characterization of ZnGeN ₂ grown from elemental Zn and Ge sources. <i>Journal of Crystal Growth</i> , 2008, 310, 1057-1061.	1.5	77
9	In situ scanning and transmission electron microscopy investigation on plastic deformation in a metastable β^2 titanium alloy. <i>Acta Materialia</i> , 2017, 133, 21-29.	7.9	74
10	Interstitial-boron solution strengthened WB ₃ + <i>x</i> . <i>Applied Physics Letters</i> , 2013, 103, .	3.3	72
11	Primary and Secondary Dealloying of Au(Pt)-Ag: Structural and Compositional Evolutions, and Volume Shrinkage. <i>Journal of the Electrochemical Society</i> , 2014, 161, C517-C526.	2.9	71
12	Deformation mechanisms in a Co-rich nickel based superalloy with different size of γ^2 precipitates. <i>Materials Letters</i> , 2015, 152, 272-275.	2.6	57
13	Deformation-induced dissolution and growth of precipitates in an Al-Mg-Er alloy during high-cycle fatigue. <i>Acta Materialia</i> , 2014, 81, 409-419.	7.9	56
14	Stacking fault effects on dynamic strain aging in a Ni-Co-based superalloy. <i>Scripta Materialia</i> , 2014, 87, 37-40.	5.2	52
15	Elastically confined martensitic transformation at the nano-scale in a multifunctional titanium alloy. <i>Acta Materialia</i> , 2017, 135, 330-339.	7.9	50
16	In situ atomic-scale observation of grain size and twin thickness effect limit in twin-structural nanocrystalline platinum. <i>Nature Communications</i> , 2020, 11, 1167.	12.8	48
17	Undulating Slip in Laves Phase and Implications for Deformation in Brittle Materials. <i>Physical Review Letters</i> , 2011, 106, 165505.	7.8	46
18	Cerium reduction at the interface between ceria and yttria-stabilised zirconia and implications for interfacial oxygen non-stoichiometry. <i>APL Materials</i> , 2014, 2, .	5.1	46

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19	Tracing the coupled atomic shear and shuffle for a cubic to a hexagonal crystal transition. Scripta Materialia, 2017, 133, 70-74.	5.2	43
20	Temperature effects on the transition from Lomer-Cottrell locks to deformation twinning in a Ni-Co-based superalloy. Scripta Materialia, 2016, 125, 24-28.	5.2	42
21	Diffusional-displacive transformation in a metastable β^2 titanium alloy and its strengthening effect. Acta Materialia, 2020, 195, 151-162.	7.9	40
22	Free-standing Monatomic Thick Two-dimensional Gold. Nano Letters, 2019, 19, 4560-4566.	9.1	39
23	Special segregation of Cu on the habit plane of lath-like β^2 and QP2 precipitates in Al-Mg-Si-Cu alloys. Scripta Materialia, 2018, 151, 33-37.	5.2	38
24	Direct observation of deformation twinning under stress gradient in body-centered cubic metals. Acta Materialia, 2018, 155, 56-68.	7.9	37
25	An ordered structure of Cu ₃ Sn in Cu-Sn alloy investigated by transmission electron microscopy. Journal of Alloys and Compounds, 2009, 469, 129-136.	5.5	35
26	Deformation twinning with zero macroscopic strain in a coarse-grained Ni-Co-based superalloy. Scripta Materialia, 2014, 77, 71-74.	5.2	35
27	Three-Dimensional Atomic Structure of Grain Boundaries Resolved by Atomic-Resolution Electron Tomography. Matter, 2020, 3, 1999-2011.	10.0	34
28	Quantitative comparison of image contrast and pattern between experimental and simulated high-resolution transmission electron micrographs. Ultramicroscopy, 2007, 107, 281-292.	1.9	29
29	Transformation induced crack deflection in a metastable titanium alloy and implications on transformation toughening. Acta Materialia, 2016, 118, 120-128.	7.9	29
30	Size-Dependent Grain-Boundary Structure with Improved Conductive and Mechanical Stabilities in Sub-10-nm Gold Crystals. Physical Review Letters, 2018, 120, 186102.	7.8	29
31	Structural Evolution and Electrical Properties of Sc ₂ O ₃ -Stabilized ZrO ₂ Aged at 850 Å°C in Air and Wet-Forming Gas Ambients. Journal of the American Ceramic Society, 2008, 91, 1626-1633.	3.8	28
32	Expansion of interatomic distances in platinum catalyst nanoparticles. Acta Materialia, 2010, 58, 836-845.	7.9	26
33	Facilitating effect of interfacial grooves on the rafting of nickel-based single crystal superalloy at high temperature. Scripta Materialia, 2019, 167, 71-75.	5.2	24
34	β^2 - to β^3 -Al ₂ O ₃ martensitic transformation induced by pulsed laser irradiation. Acta Materialia, 2010, 58, 3867-3876.	7.9	23
35	Motion of $1/3\langle 111 \rangle$ dislocations on β^3 {112} twin boundaries in nanotwinned copper. Journal of Applied Physics, 2014, 115, .	2.5	23
36	In situ electron microscopy investigation of void healing in an Al-Mg-Er alloy at a low temperature. Acta Materialia, 2014, 69, 236-245.	7.9	23

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37	Superplasticity in Gold Nanowires through the Operation of Multiple Slip Systems. <i>Advanced Functional Materials</i> , 2018, 28, 1805258.	14.9	21
38	Mechanism of eutectic growth in directional solidification of an Al ₂ O ₃ /Y ₃ Al ₅ O ₁₂ crystal. <i>Scripta Materialia</i> , 2016, 116, 44-48.	5.2	18
39	In-situ observation of deformation induced β phase transformation in a β -titanium alloy. <i>Materials Letters</i> , 2016, 182, 281-284.	2.6	18
40	Reversible displacive transformation with continuous transition interface in a metastable β titanium alloy. <i>Acta Materialia</i> , 2019, 174, 217-226.	7.9	18
41	High speed dynamic deformation of polysynthetic twinned titanium aluminide intermetallic compound. <i>Acta Materialia</i> , 2018, 152, 269-277.	7.9	16
42	Creep deformation of a nickel-based single crystal superalloy under high stress at 1033ÅK. <i>Journal of Alloys and Compounds</i> , 2018, 735, 813-820.	5.5	15
43	Free-Standing Two-Dimensional Gold Membranes Produced by Extreme Mechanical Thinning. <i>ACS Nano</i> , 2020, 14, 17091-17099.	14.6	15
44	Screw-rotation twinning through helical movement of triple-partials. <i>Applied Physics Letters</i> , 2012, 101, 121901.	3.3	14
45	Shear deformation determined by short-range configuration of atoms in topologically close-packed crystal. <i>Acta Materialia</i> , 2019, 179, 396-405.	7.9	13
46	Abnormal grain growth of BaTiO ₃ by 2D nucleation and lateral growth. <i>Journal of the European Ceramic Society</i> , 2008, 28, 1821-1825.	5.7	11
47	Competitive growth of Al ₂ O ₃ / YAG / ZrO ₂ eutectic ceramics during directional solidification: Effect of interfacial energy. <i>Journal of the American Ceramic Society</i> , 2018, 102, 2176.	3.8	11
48	Quantitative assessment of nanoparticle size distributions from HRTEM images. <i>International Journal of Materials Research</i> , 2006, 97, 928-933.	0.3	11
49	Medium range order of bulk metallic glasses determined by variable resolution fluctuation electron microscopy. <i>Micron</i> , 2012, 43, 827-831.	2.2	10
50	Approximants of Al-Cr-Fe-Si decagonal quasicrystals described by single structural block. <i>Journal of Alloys and Compounds</i> , 2015, 647, 797-801.	5.5	10
51	Thermally stable coherent domain boundaries in complex-structured Cr ₂ Nb intermetallics. <i>Philosophical Magazine</i> , 2016, 96, 58-70.	1.6	10
52	Interactions between dislocations and twins in deformed titanium aluminide crystals. <i>Journal of Materials Science and Technology</i> , 2019, 35, 402-408.	10.7	10
53	Interplay of chemistry and deformation-induced defects on facilitating topologically-close-packed phase precipitation in nickel-base superalloys. <i>Acta Materialia</i> , 2022, 236, 118109.	7.9	10
54	Thermal stability of stacked self-assembled InP quantum dots in GaInP. <i>Journal of Applied Physics</i> , 2002, 91, 3255-3260.	2.5	9

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55	Formation of nickel nanoparticles in nickel “ ceramic anodes during operation of solid-oxide fuel cells. International Journal of Materials Research, 2008, 99, 548-552.	0.3	9
56	Deformation induced twinning and phase transition in an interstitial intermetallic compound niobium boride. Acta Materialia, 2019, 165, 459-470.	7.9	8
57	Pyramidal dislocation induced strain relaxation in hexagonal structured InGaN/AlGaIn/GaN multilayer. Journal of Applied Physics, 2012, 112, .	2.5	6
58	Geometric and Chemical Composition Effects on Healing Kinetics of Voids in Mg-bearing Al Alloys. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2016, 47, 2410-2420.	2.2	6
59	Shuffle and glide mechanisms of prismatic dislocations in a hexagonal C_{14} -type Laves-phase intermetallic compound. Physical Review B, 2020, 102, .		
60	Phase Transition to Heptagonal-Cluster-Packed Structure of Gold Nanoribbons. Journal of the American Chemical Society, 2022, 144, 1158-1163.	13.7	6
61	Nanometer to micrometer scaled inhomogeneous etching of bulk metallic glasses by ion sputtering. Intermetallics, 2013, 34, 75-82.	3.9	5
62	Reversible twin boundary migration between $\pm\epsilon^3$ martensites in a Ti-Nb-Zr-Sn alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 688, 169-173.	5.6	5
63	TEM and STEM investigation of grain boundaries and second phases in barium titanate. Philosophical Magazine, 2007, 87, 5447-5459.	1.6	4
64	Direct Observation of a Screw Dislocation Normal to the Beam by Z -Contrast STEM. Journal of the American Ceramic Society, 2012, 95, 466-468.	3.8	4
65	Atomic structure and chemistry of a[100] dislocation cores in $La_2/3Sr_{1/3}MnO_3$ films. Micron, 2017, 96, 72-76.	2.2	4
66	Transmission Electron Microscopy. Springer Tracts in Modern Physics, 2018, , 69-203.	0.1	4
67	In situ observation of twin-assisted grain growth in nanometer-scaled metal. Micron, 2020, 131, 102825.	2.2	4
68	Correction of aberration for a high-resolution electron hologram by means of the amplitude contrast criterion of image wave. Micron, 2002, 33, 15-21.	2.2	3
69	Atomic-scale microstructure of $Hf_2Al_4C_5$ ceramic synthesized by spark plasma sintering. Journal of the American Ceramic Society, 2017, 100, 3208-3216.	3.8	3
70	3D atomic imaging of low-coordinated active sites in solid-state dealloyed hierarchical nanoporous gold. Journal of Materials Chemistry A, 2021, 9, 25513-25521.	10.3	3
71	Image matching between experimental and simulated high-resolution electron micrographs of sapphire on the orientation. Journal of Microscopy, 2008, 232, 137-144.	1.8	2
72	On the accuracy of maximum entropy reconstruction of high-resolution Z-contrast STEM images. Micron, 2009, 40, 247-254.	2.2	2

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73	High Reversible Strain in Nanotwinned Metals. ACS Applied Materials & Interfaces, 2021, 13, 46088-46096.	8.0	2
74	Measurement of crystal thickness and orientation from selected-area Fourier transformation of a high-resolution electron hologram. Micron, 2006, 37, 67-72.	2.2	1
75	Cerium Reduction at the Interface between Ceria and Ytria-stabilised Zirconia and Implications for Interfacial Oxygen Non-stoichiometry. Microscopy and Microanalysis, 2014, 20, 420-421.	0.4	1
76	Vertical Strain Engineering of Epitaxial La _{2/3} Sr _{1/3} MnO ₃ Thin Films by Spontaneously Embedding ZrO ₂ Nanopillar Arrays. Advanced Materials Interfaces, 2021, 8, 2001355.	3.7	1
77	Simple hexagonal structured gold with eight-coordination formed with ordered structural vacancies. Acta Materialia, 2022, 229, 117844.	7.9	1
78	Three Dimensional Structure of Grain Boundaries in Nanometals. Microscopy and Microanalysis, 2020, 26, 1138-1138.	0.4	0
79	Quantitative assessment of nanoparticle size distributions from HRTEM images. International Journal of Materials Research, 2022, 97, 928-933.	0.3	0
80	Dissociation of Tilt Dislocation Walls in Au. Acta Metallurgica Sinica (English Letters), 0, , .	2.9	0
81	Direct Atomic Observation of Reversible Orientation Switch in Monoatomic-Layered Gold Membrane Conducted by Dynamic Vortex. ACS Applied Materials & Interfaces, 2022, 14, 32379-32386.	8.0	0