Qin Yu

List of Publications by Year
in descending order

		185998	149479
58	3,190	28	56
papers	citations	h-index	g-index

59	59	59	2000
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Bioinspired fish-scale-like magnesium composites strengthened by contextures of continuous titanium fibers: Lessons from nature. Journal of Magnesium and Alloys, 2023, 11, 869-881.	5.5	6
2	Bioinspired tungsten-copper composites with Bouligand-type architectures mimicking fish scales. Journal of Materials Science and Technology, 2022, 96, 21-30.	5.6	16
3	An experimental study of anisotropic fracture behavior of rolled AZ31B magnesium alloy under monotonic tension. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 831, 142193.	2.6	6
4	Fatigue-crack propagation behavior in a high-carbon chromium SUJ2 bearing steel: Role of microstructure. International Journal of Fatigue, 2022, 156, 106693.	2.8	11
5	On the torsional and coupled torsion-tension/compression behavior of magnesium alloy solid rod: A crystal plasticity evaluation. International Journal of Plasticity, 2022, 151, 103213.	4.1	11
6	Response to Comment on â€œCryoforged nanotwinned titanium with ultrahigh strength and ductilityâ€• Science, 2022, 376, eabo5247.	6.0	2
7	An experimental study of the mechanical behavior of rolled AZ31B magnesium alloy under combined axial-torsion loading. International Journal of Plasticity, 2022, 155, 103319.	4.1	9
8	On the damage tolerance of 3-D printed Mg-Ti interpenetrating-phase composites with bioinspired architectures. Nature Communications, 2022, 13, .	5.8	58
9	Effects of texture and twinning on the torsional behavior of magnesium alloy solid rod: A crystal plasticity approach in comparison with uniaxial tension/compression. International Journal of Mechanical Sciences, 2021, 191, 106062.	3.6	20
10	Twinning in rolled AZ31B magnesium alloy under free-end torsion. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 801, 140405.	2.6	19
11	Numerical Study of Multiaxial Loading Behavior of Mg Alloy AZ31 Extruded Bar. Minerals, Metals and Materials Series, 2021, , 101-105.	0.3	0
12	On the intrusion-like co-zone twin-twin structure: An in situ observation. Materials Letters, 2021, 286, 129140.	1.3	2
13	Twinning characteristics in rolled AZ31B magnesium alloy under three stress states. Materials Characterization, 2021, 175, 111050.	1.9	19
14	Compressive properties of 3-D printed Mgâ€“NiTi interpenetrating-phase composite: Effects of strain rate and temperature. Composites Part B: Engineering, 2021, 215, 108783.	5.9	16
15	4D-STEM Imaging of nanostructural heterogeneities in Ni-20Cr after corrosion in molten salt. Microscopy and Microanalysis, 2021, 27, 2134-2135.	0.2	1
16	In situ observations and measurements of plastic deformation, phase transformations and fracture with 4D-STEM. Microscopy and Microanalysis, 2021, 27, 1494-1495.	0.2	1
17	Cryoforged nanotwinned titanium with ultrahigh strength and ductility. Science, 2021, 373, 1363-1368.	6.0	155
18	A critical dislocation velocity for serration mechanism transition in a nickel-chromium solid solution alloy. International Journal of Plasticity, 2021, 145, 103071.	4.1	3

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19	Compression fatigue properties and damage mechanisms of a bioinspired nacre-like ceramic-polymer composite. Scripta Materialia, 2021, 203, 114089.	2.6	16
20	Dual-gradient structure leads to optimized combination of high fracture resistance and strength-ductility synergy with minimized final catastrophic failure. Journal of Materials Research and Technology, 2021, 15, 901-910.	2.6	7
21	On the exceptional damage-tolerance of gradient metallic materials. Materials Today, 2020, 32, 94-107.	8.3	89
22	Effects of cryogenic temperature and grain size on fatigue-crack propagation in the medium-entropy CrCoNi alloy. Acta Materialia, 2020, 200, 351-365.	3.8	76
23	Making ultrastrong steel tough by grain-boundary delamination. Science, 2020, 368, 1347-1352.	6.0	200
24	3D printed Mg-NiTi interpenetrating-phase composites with high strength, damping capacity, and energy absorption efficiency. Science Advances, 2020, 6, eaba5581.	4.7	87
25	Uniaxial Ratcheting of Extruded Mg-10Gd-3Y Alloy under Stress-Controlled Cyclic Tension. Journal of Materials Engineering and Performance, 2020, 29, 2103-2112.	1.2	8
26	On the impact toughness of gradient-structured metals. Acta Materialia, 2020, 193, 125-137.	3.8	70
27	Helical van der Waals crystals with discretized Eshelby twist. Nature, 2019, 570, 358-362.	13.7	91
28	Temperature and load-ratio dependent fatigue-crack growth in the CrMnFeCoNi high-entropy alloy. Journal of Alloys and Compounds, 2019, 794, 525-533.	2.8	74
29	Deformation of extruded ZK60 magnesium alloy under uniaxial loading in different material orientations. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 710, 206-213.	2.6	38
30	In situ observation of cross-grain twin pair formation in pure magnesium. Philosophical Magazine Letters, 2018, 98, 139-146.	0.5	16
31	Tunable stacking fault energies by tailoring local chemical order in CrCoNi medium-entropy alloys. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 8919-8924.	3.3	495
32	A discrete element method representation of an anisotropic elastic continuum. Journal of the Mechanics and Physics of Solids, 2018, 121, 363-386.	2.3	9
33	Characteristic cyclic plastic deformation in ZK60 magnesium alloy. International Journal of Plasticity, 2017, 91, 25-47.	4.1	68
34	Pre-compression effect on microstructure evolution of extruded pure polycrystalline magnesium during reversed tension load. Materials Characterization, 2017, 134, 41-48.	1.9	24
35	Developing a Crystal Plasticity Model for Metallic Materials Based on the Discrete Element Method. MRS Advances, 2017, 2, 2609-2614.	0.5	2
36	Cyclic deformation and fatigue of extruded AZ31B magnesium alloy under different strain ratios. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 649, 93-103.	2.6	37

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37	Use of Nanoindentation, Finite Element Simulations, and a Combined Experimental/Numerical Approach to Characterize Elastic Moduli of Individual Porous Silica Particles. Particulate Science and Technology, 2015, 33, 213-218.	1.1	2
38	Tension-compression-tension tertiary twins in coarse-grained polycrystalline pure magnesium at room temperature. Philosophical Magazine Letters, 2015, 95, 194-201.	0.5	12
39	Cyclic deformation and fatigue damage in single-crystal magnesium under fully reversed strain-controlled tensionâ€“compression in the [1 0<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.gif" overflow="scroll"><mml:mrow><mml:mover accent="true"><mml:mrow><mml:mn mathvariant="bold">1</mml:mn></mml:mrow><mml:mrow><mml:mo>Â¯</mml:mo></mml:mrow></mml:mover></mml:mrow></mm direction. Scripta Materialia, 2015, 96, 41-44.	2.6	58
40	Electron backscatter diffraction observations of twinningâ€“detwinning evolution in a magnesium alloy subjected to large strain amplitude cyclic loading. Materials & Design, 2015, 65, 762-765.	5.1	42
41	Co-zone {1Â¯012} Twin Interaction in Magnesium Single Crystal. Materials Research Letters, 2014, 2, 82-88.	4.1	89
42	An experimental study of cyclic plastic deformation of extruded ZK60 magnesium alloy under uniaxial loading at room temperature. International Journal of Plasticity, 2014, 53, 107-124.	4.1	122
43	Twinning-Associated Boundaries in Hexagonal Close-Packed Metals. Jom, 2014, 66, 95-101.	0.9	36
44	Tensile Elastic Behavior of a Zrâ€“Cuâ€“Agâ€“Al Bulk Metallic Glass. Journal of Materials Science and Technology, 2014, 30, 595-598.	5.6	8
45	Twinâ€“twin interactions in magnesium. Acta Materialia, 2014, 77, 28-42.	3.8	243
46	Loading history effect on fatigue crack growth of extruded AZ31B magnesium alloy. Engineering Fracture Mechanics, 2013, 114, 42-54.	2.0	26
47	An experimental study of fatigue crack propagation in extruded AZ31B magnesium alloy. International Journal of Fatigue, 2013, 47, 174-183.	2.8	37
48	Inverse Slip Accompanying Twinning and Detwinning during Cyclic Loading of Magnesium Single Crystal. Journal of Materials, 2013, 2013, 1-8.	0.1	8
49	Effect of strain ratio on cyclic deformation and fatigue of extruded AZ61A magnesium alloy. International Journal of Fatigue, 2012, 44, 225-233.	2.8	43
50	An experimental study on cyclic deformation and fatigue of extruded ZK60 magnesium alloy. International Journal of Fatigue, 2012, 36, 47-58.	2.8	87
51	Multiaxial fatigue of extruded AZ31B magnesium alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 546, 119-128.	2.6	88
52	Microstructure and deformation mechanism of Mg6Al1ZnA alloy experienced tensionâ€“compression cyclic loading. Scripta Materialia, 2011, 64, 233-236.	2.6	27
53	An experimental study of cyclic deformation of extruded AZ61A magnesium alloy. International Journal of Plasticity, 2011, 27, 768-787.	4.1	127
54	Multiaxial fatigue of extruded AZ61A magnesium alloy. International Journal of Fatigue, 2011, 33, 437-447.	2.8	91

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55	Fatigue damage development in pure polycrystalline magnesium under cyclic tensionâ€“compression loading. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2011, 528, 7816-7826.	2.6	74
56	Direct observation of twinningâ€“detwinningâ€“retwinning on magnesium single crystal subjected to strain-controlled cyclic tensionâ€“compression in [0â€‰0â€‰0â€‰1] direction. Philosophical Magazine Letters, 2011, 91, 757-765.	0.5	131
57	Effect of strain amplitude on tensionâ€“compression fatigue behavior of extruded Mg6Al1ZnA magnesium alloy. Scripta Materialia, 2010, 62, 778-781.	2.6	77
58	Compression Fatigue Properties and Damage Mechanisms of a Bioinspired Nacre-Like Ceramic-Polymer Composite. SSRN Electronic Journal, 0, , .	0.4	0