

# Yanyao Jiang

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

110 papers	4,264 citations	39 h-index	61 g-index
110 ext. papers	4,811 ext. citations	4.7 avg, IF	5.9 L-index

#	Paper	IF	Citations
110	An experimental study of anisotropic fracture behavior of rolled AZ31B magnesium alloy under monotonic tension. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2022</b> , 831, 142193	5.3	0
109	An experimental study of the mechanical behavior of rolled AZ31B magnesium alloy under combined axial-torsion loading. <i>International Journal of Plasticity</i> , <b>2022</b> , 155, 103319	7.6	0
108	Twinning characteristics in rolled AZ31B magnesium alloy under three stress states. <i>Materials Characterization</i> , <b>2021</b> , 175, 111050	3.9	9
107	Twinning in rolled AZ31B magnesium alloy under free-end torsion. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2021</b> , 801, 140405	5.3	9
106	On the intrusion-like co-zone twin-twin structure: An in situ observation. <i>Materials Letters</i> , <b>2021</b> , 286, 129140	3.3	1
105	Evaluation of elastic-viscoplastic self-consistent models for a rolled AZ31B magnesium alloy under monotonic loading along five different material orientations and free-end torsion. <i>Journal of Magnesium and Alloys</i> , <b>2021</b> ,	8.8	2
104	Effect of texture evolution on corrosion resistance of AZ80 magnesium alloy subjected to applied force in simulated body fluid. <i>Materials Research Express</i> , <b>2020</b> , 7, 015406	1.7	6
103	Cyclic shear deformation and fatigue of extruded Mg-Gd-Y magnesium alloy. <i>Journal of Materials Science and Technology</i> , <b>2020</b> , 39, 74-81	9.1	11
102	Cyclic deformation and fatigue behavior of 316L stainless steel processed by surface mechanical rolling treatment. <i>International Journal of Fatigue</i> , <b>2020</b> , 134, 105469	5	15
101	Compressive deformation of rolled AZ80 magnesium alloy along different material orientations. <i>Journal of Materials Science</i> , <b>2020</b> , 55, 4043-4053	4.3	6
100	An experimental study of anisotropic fatigue behavior of rolled AZ31B magnesium alloy. <i>Materials and Design</i> , <b>2020</b> , 186, 108266	8.1	10
99	Effects of initial {10-12} twins on cyclic deformation and fatigue of magnesium alloy at low strain amplitudes. <i>Materials Characterization</i> , <b>2019</b> , 149, 118-123	3.9	12
98	Cyclic deformation and fatigue behavior of additively manufactured 17% PH stainless steel. <i>International Journal of Fatigue</i> , <b>2019</b> , 123, 22-30	5	60
97	Secondary twin variant selection in four types of double twins in titanium. <i>Acta Materialia</i> , <b>2018</b> , 152, 58-76	8.4	55
96	Twin-Slip Interaction at Low Stress Stage Deformation in an AZ31 Mg Alloy. <i>Minerals, Metals and Materials Series</i> , <b>2018</b> , 193-198	0.3	
95	In situ observation of cross-grain twin pair formation in pure magnesium. <i>Philosophical Magazine Letters</i> , <b>2018</b> , 98, 139-146	1	12
94	Structural characteristics of {10012} non-cozone twin-twin interactions in magnesium. <i>Acta Materialia</i> , <b>2018</b> , 159, 65-76	8.4	31

93	Deformation of extruded ZK60 magnesium alloy under uniaxial loading in different material orientations. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2018</b> , 710, 206-213	5.3	30
92	Negligible effect of twin-slip interaction on hardening in deformation of a Mg-3Al-1Zn alloy. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2018</b> , 729, 285-293	5.3	26
91	Characteristic cyclic plastic deformation in ZK60 magnesium alloy. <i>International Journal of Plasticity</i> , <b>2017</b> , 91, 25-47	7.6	47
90	Fatigue of extruded AZ31B magnesium alloy under stress- and strain-controlled conditions including step loading. <i>Mechanics of Materials</i> , <b>2017</b> , 108, 77-86	3.3	20
89	Pre-compression effect on microstructure evolution of extruded pure polycrystalline magnesium during reversed tension load. <i>Materials Characterization</i> , <b>2017</b> , 134, 41-48	3.9	16
88	An experimental study of the orientation effect on fatigue crack propagation in rolled AZ31B magnesium alloy. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2016</b> , 676, 10-19	5.3	8
87	Cyclic deformation and fatigue of rolled AZ80 magnesium alloy along different material orientations. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2016</b> , 677, 58-67	5.3	42
86	Cyclic deformation and fatigue of extruded AZ31B magnesium alloy under different strain ratios. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2016</b> , 649, 93-103	5.3	24
85	Fatigue life and early cracking predictions of extruded AZ31B magnesium alloy using critical plane approaches. <i>International Journal of Fatigue</i> , <b>2016</b> , 88, 236-246	5	22
84	Deformation twinning in hexagonal materials. <i>MRS Bulletin</i> , <b>2016</b> , 41, 314-319	3.2	54
83	Aging effects on cyclic deformation and fatigue of extruded Mg <sub>97</sub> Al <sub>3</sub> alloy. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2015</b> , 641, 1-9	5.3	11
82	Tension-compression-tension tertiary twins in coarse-grained polycrystalline pure magnesium at room temperature. <i>Philosophical Magazine Letters</i> , <b>2015</b> , 95, 194-201	1	9
81	Cyclic deformation and fatigue damage in single-crystal magnesium under fully reversed strain-controlled tension-compression in the [1 010] direction. <i>Scripta Materialia</i> , <b>2015</b> , 96, 41-44	5.6	44
80	Electron backscatter diffraction observations of twinning-detwinning evolution in a magnesium alloy subjected to large strain amplitude cyclic loading. <i>Materials &amp; Design</i> , <b>2015</b> , 65, 762-765		37
79	Modeling of fatigue crack growth in a pressure vessel steel Q345R. <i>Engineering Fracture Mechanics</i> , <b>2015</b> , 135, 245-258	4.2	10
78	An experimental study of cyclic plastic deformation of extruded ZK60 magnesium alloy under uniaxial loading at room temperature. <i>International Journal of Plasticity</i> , <b>2014</b> , 53, 107-124	7.6	96
77	Twinning-Associated Boundaries in Hexagonal Close-Packed Metals. <i>Jom</i> , <b>2014</b> , 66, 95-101	2.1	34
76	Cyclic deformation and fatigue of extruded ZK60 magnesium alloy with aging effects. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2014</b> , 615, 262-272	5.3	35

75	A study of fatigue damage development in extruded Mg <sub>97</sub> Al <sub>3</sub> magnesium alloy. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2014</b> , 589, 209-216	5.3	31
74	Tensile Elastic Behavior of a Zr <sub>40</sub> Ti <sub>40</sub> Ag <sub>10</sub> Al Bulk Metallic Glass. <i>Journal of Materials Science and Technology</i> , <b>2014</b> , 30, 595-598	9.1	5
73	Fatigue of ZK60 magnesium alloy under uniaxial loading. <i>International Journal of Fatigue</i> , <b>2014</b> , 64, 74-83	5.3	46
72	Twin-Twin interactions in magnesium. <i>Acta Materialia</i> , <b>2014</b> , 77, 28-42	8.4	190
71	Co-zone {10012} Twin Interaction in Magnesium Single Crystal. <i>Materials Research Letters</i> , <b>2014</b> , 2, 82-88	7.4	75
70	Loading history effect on fatigue crack growth of extruded AZ31B magnesium alloy. <i>Engineering Fracture Mechanics</i> , <b>2013</b> , 114, 42-54	4.2	19
69	Corrosion fatigue crack growth of AISI 4340 steel. <i>International Journal of Fatigue</i> , <b>2013</b> , 48, 156-164	5	36
68	An experimental study of fatigue crack propagation in extruded AZ31B magnesium alloy. <i>International Journal of Fatigue</i> , <b>2013</b> , 47, 174-183	5	31
67	Cyclic deformation and fatigue of extruded Mg <sub>97</sub> Al <sub>3</sub> magnesium alloy. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2013</b> , 561, 403-410	5.3	40
66	Inverse Slip Accompanying Twinning and Detwinning during Cyclic Loading of Magnesium Single Crystal. <i>Journal of Materials</i> , <b>2013</b> , 2013, 1-8		6
65	Multiaxial fatigue of extruded AZ31B magnesium alloy. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2012</b> , 546, 119-128	5.3	73
64	Effect of strain ratio on cyclic deformation and fatigue of extruded AZ61A magnesium alloy. <i>International Journal of Fatigue</i> , <b>2012</b> , 44, 225-233	5	39
63	An experimental study on cyclic deformation and fatigue of extruded ZK60 magnesium alloy. <i>International Journal of Fatigue</i> , <b>2012</b> , 36, 47-58	5	75
62	Microstructure and deformation mechanism of Mg <sub>60</sub> Al <sub>10</sub> Zn <sub>30</sub> alloy experienced tension-compression cyclic loading. <i>Scripta Materialia</i> , <b>2011</b> , 64, 233-236	5.6	23
61	An experimental study of cyclic deformation of extruded AZ61A magnesium alloy. <i>International Journal of Plasticity</i> , <b>2011</b> , 27, 768-787	7.6	110
60	Stress-Corrosion Cracking of AISI 4340 Steel in Aqueous Environments. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , <b>2011</b> , 42, 434-447	2.3	10
59	Effect of Loading History on Stress Corrosion Cracking of 7075-T651 Aluminum Alloy in Saline Aqueous Environment. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , <b>2011</b> , 42, 448-460	2.3	8
58	Multiaxial fatigue of extruded AZ61A magnesium alloy. <i>International Journal of Fatigue</i> , <b>2011</b> , 33, 437-447	5.7	74

57	Fatigue damage development in pure polycrystalline magnesium under cyclic tension-compression loading. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2011</b> , 528, 7816-7826	5.3	65
56	Influence of the contact pressure on rolling contact fatigue initiation of 1070 steel. <i>Procedia Engineering</i> , <b>2011</b> , 10, 3000-3005		3
55	Direct observation of twinning-detwinning-detwinning on magnesium single crystal subjected to strain-controlled cyclic tension-compression in [0 0 0 1] direction. <i>Philosophical Magazine Letters</i> , <b>2011</b> , 91, 757-765	1	108
54	Effect of strain amplitude on tension-compression fatigue behavior of extruded Mg6Al1ZnA magnesium alloy. <i>Scripta Materialia</i> , <b>2010</b> , 62, 778-781	5.6	71
53	An Experimental Study of the Crack Growth Behavior of 16MnR Pressure Vessel Steel. <i>Journal of Pressure Vessel Technology, Transactions of the ASME</i> , <b>2009</b> , 131,	1.2	17
52	Fatigue life predictions by integrating EVICD fatigue damage model and an advanced cyclic plasticity theory. <i>International Journal of Plasticity</i> , <b>2009</b> , 25, 780-801	7.6	36
51	. <i>IEEE Transactions on Components and Packaging Technologies</i> , <b>2009</b> , 32, 53-62		10
50	Multiaxial Fatigue of 16MnR Steel. <i>Journal of Pressure Vessel Technology, Transactions of the ASME</i> , <b>2009</b> , 131,	1.2	38
49	Fatigue of AL6XN Stainless Steel. <i>Journal of Engineering Materials and Technology, Transactions of the ASME</i> , <b>2008</b> , 130,	1.8	34
48	Modeling of fatigue crack growth of stainless steel 304L. <i>Mechanics of Materials</i> , <b>2008</b> , 40, 961-973	3.3	23
47	Benchmark experiments and characteristic cyclic plasticity deformation. <i>International Journal of Plasticity</i> , <b>2008</b> , 24, 1481-1515	7.6	156
46	An experimental investigation on fatigue crack growth of AL6XN stainless steel. <i>Engineering Fracture Mechanics</i> , <b>2008</b> , 75, 2002-2019	4.2	30
45	Fatigue of 7075-T651 aluminum alloy. <i>International Journal of Fatigue</i> , <b>2008</b> , 30, 834-849	5	181
44	A study of fatigue crack growth of 7075-T651 aluminum alloy. <i>International Journal of Fatigue</i> , <b>2008</b> , 30, 1169-1180	5	89
43	Constitutive modeling of cyclic plasticity deformation of a pure polycrystalline copper. <i>International Journal of Plasticity</i> , <b>2008</b> , 24, 1890-1915	7.6	74
42	An experimental study of the formation of typical dislocation patterns in polycrystalline copper under cyclic shear. <i>Acta Materialia</i> , <b>2007</b> , 55, 1831-1842	8.4	10
41	An experimental evaluation of three critical plane multiaxial fatigue criteria. <i>International Journal of Fatigue</i> , <b>2007</b> , 29, 1490-1502	5	118
40	A study of fatigue crack growth with changing loading direction. <i>Engineering Fracture Mechanics</i> , <b>2007</b> , 74, 2014-2029	4.2	11

39	An Approach for Fatigue Life Prediction. <i>Journal of Engineering Materials and Technology, Transactions of the ASME</i> , <b>2007</b> , 129, 182-189	1.8	5
38	Finite Element Modeling of Self-Loosening of Bolted Joints. <i>Journal of Mechanical Design, Transactions of the ASME</i> , <b>2007</b> , 129, 218-226	3	45
37	Fatigue of polycrystalline copper with different grain sizes and texture. <i>International Journal of Plasticity</i> , <b>2006</b> , 22, 536-556	7.6	31
36	An Experimental Investigation of the Effects of Clamped Length and Loading Direction on Self-Loosening of Bolted Joints. <i>Journal of Pressure Vessel Technology, Transactions of the ASME</i> , <b>2006</b> , 128, 388-393	1.2	11
35	Fatigue life prediction of copper single crystals using a critical plane approach. <i>Engineering Fracture Mechanics</i> , <b>2006</b> , 73, 684-696	4.2	15
34	A study of loading path influence on fatigue crack growth under combined loading. <i>International Journal of Fatigue</i> , <b>2006</b> , 28, 19-27	5	14
33	Elastic-Plastic Finite Element Analysis of Nonsteady State Partial Slip Wheel-Rail Rolling Contact. <i>Journal of Tribology</i> , <b>2005</b> , 127, 713-721	1.8	15
32	A study of crack growth retardation due to artificially induced crack surface contact. <i>International Journal of Fatigue</i> , <b>2005</b> , 27, 1319-1327	5	12
31	An experimental study of inhomogeneous cyclic plastic deformation of 1045 steel under multiaxial cyclic loading. <i>International Journal of Plasticity</i> , <b>2005</b> , 21, 2174-2190	7.6	17
30	A reexamination of plasticity-induced crack closure in fatigue crack propagation. <i>International Journal of Plasticity</i> , <b>2005</b> , 21, 1720-1740	7.6	66
29	An experimental investigation on cyclic plastic deformation and substructures of polycrystalline copper. <i>International Journal of Plasticity</i> , <b>2005</b> , 21, 2191-2211	7.6	45
28	A Study of Inhomogeneous Plastic Deformation of 1045 Steel. <i>Journal of Engineering Materials and Technology, Transactions of the ASME</i> , <b>2004</b> , 126, 164-171	1.8	18
27	Modeling of Fatigue Crack Propagation. <i>Journal of Engineering Materials and Technology, Transactions of the ASME</i> , <b>2004</b> , 126, 77-86	1.8	57
26	A cyclic plasticity model for single crystals. <i>International Journal of Plasticity</i> , <b>2004</b> , 20, 2161-2178	7.6	40
25	Non-Metallic and Structurally Efficient Thermal Energy Storage Composites for Avionics Temperature Control, Part I: Thermal Characterization <b>2004</b> ,		7
24	An Experimental Investigation of the Effects of Clamped Length and Loading Direction on Self-Loosening of Bolted Joints <b>2004</b> , 129		1
23	An Experimental Study of Self-Loosening of Bolted Joints. <i>Journal of Mechanical Design, Transactions of the ASME</i> , <b>2004</b> , 126, 925-931	3	68
22	A Study of Early Stage Self-Loosening of Bolted Joints. <i>Journal of Mechanical Design, Transactions of the ASME</i> , <b>2003</b> , 125, 518-526	3	83

21	An Experimental Investigation on Self-Loosening of Bolted Joints <b>2003</b> , 17		8
20	A Continuum Model for Single Crystal Cyclic Plasticity. <i>Materials Research Society Symposia Proceedings</i> , <b>2003</b> , 779, 5301		
19	Elastic-Plastic Finite Element Analysis of Partial Slip Rolling Contact. <i>Journal of Tribology</i> , <b>2002</b> , 124, 20-268		42
18	An Experimental Investigation on Frictional Properties of Bolted Joints <b>2002</b> , 59		11
17	Three-Dimensional Elastic-Plastic Stress Analysis of Rolling Contact. <i>Journal of Tribology</i> , <b>2002</b> , 124, 699-788		62
16	An experimental study of the torque-tension relationship for bolted joints. <i>International Journal of Materials and Product Technology</i> , <b>2001</b> , 16, 417	1	32
15	Deformation analysis of notched components and assessment of approximate methods. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , <b>2001</b> , 24, 729-740	3	21
14	An Experimental Study of Inhomogeneous Cyclic Plastic Deformation. <i>Journal of Engineering Materials and Technology, Transactions of the ASME</i> , <b>2001</b> , 123, 274-280	1.8	13
13	Stress and Fatigue Analyses of Notched Shafts <b>1999</b> ,		2
12	A model for rolling contact failure. <i>Wear</i> , <b>1999</b> , 224, 38-49	3.5	124
11	Stress and fatigue analyses of an induction hardened component. <i>Metals and Materials International</i> , <b>1998</b> , 4, 520-523		2
10	An Investigation of Cyclic Transient Behavior and Implications on Fatigue Life Estimates. <i>Journal of Engineering Materials and Technology, Transactions of the ASME</i> , <b>1997</b> , 119, 161-170	1.8	39
9	Nonproportional cyclic deformation: critical experiments and analytical modeling. <i>International Journal of Plasticity</i> , <b>1997</b> , 13, 743-763	7.6	69
8	Rolling contact stress analysis with the application of a new plasticity model. <i>Wear</i> , <b>1996</b> , 191, 35-44	3.5	52
7	Comments on the Mroz multiple surface type plasticity models. <i>International Journal of Solids and Structures</i> , <b>1996</b> , 33, 1053-1068	3.1	33
6	Characteristics of the Armstrong-Frederick type plasticity models. <i>International Journal of Plasticity</i> , <b>1996</b> , 12, 387-415	7.6	140
5	Analysis of Residual Stresses and Cyclic Deformation for Induction Hardened Components <b>1995</b> ,		4
4	Cyclic ratchetting of 1070 steel under multiaxial stress states. <i>International Journal of Plasticity</i> , <b>1994</b> , 10, 579-608	7.6	137

- 3      Multiaxial cyclic ratchetting under multiple step loading. *International Journal of Plasticity*, **1994**, 10, 849-870      7.6      83
- 2      An Analytical Approach to Elastic-Plastic Stress Analysis of Rolling Contact. *Journal of Tribology*, **1994**, 116, 577-587      1.8      67
- 1      Thermal and mechanical characteristics of a multi-functional Thermal Energy Storage structure      4