# Yanyao Jiang

## List of Publications by Citations



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|---|---|---|---|
| 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 | Twin–twin interactions in magnesium. *Acta Materialia*, **2014**, 77, 28-42 | 8.4 | 190 |
| 109 | Fatigue of 7075-T651 aluminum alloy. *International Journal of Fatigue*, **2008**, 30, 834-849 | 5 | 181 |
| 108 | Benchmark experiments and characteristic cyclic plasticity deformation. *International Journal of Plasticity*, **2008**, 24, 1481-1515 | 7.6 | 156 |
| 107 | Characteristics of the Armstrong-Frederick type plasticity models. *International Journal of Plasticity*, **1996**, 12, 387-415 | 7.6 | 140 |
| 106 | Cyclic ratchetting of 1070 steel under multiaxial stress states. *International Journal of Plasticity*, **1994**, 10, 579-608 | 7.6 | 137 |
| 105 | A model for rolling contact failure. *Wear*, **1999**, 224, 38-49 | 3.5 | 124 |
| 104 | An experimental evaluation of three critical plane multiaxial fatigue criteria. *International Journal of Fatigue*, **2007**, 29, 1490-1502 | 5 | 118 |
| 103 | An experimental study of cyclic deformation of extruded AZ61A magnesium alloy. *International Journal of Plasticity*, **2011**, 27, 768-787 | 7.6 | 110 |
| 102 | Direct observation of twinning–detwinning–retwinning on magnesium single crystal subjected to strain-controlled cyclic tension–compression in [0 0 0 1] direction. *Philosophical Magazine Letters*, **2011**, 91, 757-765 | 1 | 108 |
| 101 | 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 | 7.6 | 96 |
| 100 | A study of fatigue crack growth of 7075-T651 aluminum alloy. *International Journal of Fatigue*, **2008**, 30, 1169-1180 | 5 | 89 |
| 99 | A Study of Early Stage Self-Loosening of Bolted Joints. *Journal of Mechanical Design, Transactions of the ASME*, **2003**, 125, 518-526 | 3 | 83 |
| 98 | Multiaxial cyclic ratchetting under multiple step loading. *International Journal of Plasticity*, **1994**, 10, 849-870 | 7.6 | 83 |
| 97 | Co-zone {1$\bar{1}$012} Twin Interaction in Magnesium Single Crystal. *Materials Research Letters*, **2014**, 2, 82-88 | 7.4 | 75 |
| 96 | An experimental study on cyclic deformation and fatigue of extruded ZK60 magnesium alloy. *International Journal of Fatigue*, **2012**, 36, 47-58 | 5 | 75 |
| 95 | Multiaxial fatigue of extruded AZ61A magnesium alloy. *International Journal of Fatigue*, **2011**, 33, 437-447 | 5 | 74 |
| 94 | Constitutive modeling of cyclic plasticity deformation of a pure polycrystalline copper. *International Journal of Plasticity*, **2008**, 24, 1890-1915 | 7.6 | 74 |

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| 93 | Multiaxial fatigue of extruded AZ31B magnesium alloy. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2012**, 546, 119-128 | 5.3 | 73 |
| 92 | Effect of strain amplitude on tension–compression fatigue behavior of extruded Mg6Al1ZnA magnesium alloy. *Scripta Materialia*, **2010**, 62, 778-781 | 5.6 | 71 |
| 91 | Nonproportional cyclic deformation: critical experiments and analytical modeling. *International Journal of Plasticity*, **1997**, 13, 743-763 | 7.6 | 69 |
| 90 | An Experimental Study of Self-Loosening of Bolted Joints. *Journal of Mechanical Design, Transactions of the ASME*, **2004**, 126, 925-931 | 3 | 68 |
| 89 | An Analytical Approach to Elastic-Plastic Stress Analysis of Rolling Contact. *Journal of Tribology*, **1994**, 116, 577-587 | 1.8 | 67 |
| 88 | A reexamination of plasticity-induced crack closure in fatigue crack propagation. *International Journal of Plasticity*, **2005**, 21, 1720-1740 | 7.6 | 66 |
| 87 | Fatigue damage development in pure polycrystalline magnesium under cyclic tension–compression loading. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2011**, 528, 7816-7826 | 5.3 | 65 |
| 86 | Three-Dimensional Elastic-Plastic Stress Analysis of Rolling Contact. *Journal of Tribology*, **2002**, 124, 699-708 | 1.8 | 62 |
| 85 | Cyclic deformation and fatigue behavior of additively manufactured 17-4 PH stainless steel. *International Journal of Fatigue*, **2019**, 123, 22-30 | 5 | 60 |
| 84 | Modeling of Fatigue Crack Propagation. *Journal of Engineering Materials and Technology, Transactions of the ASME*, **2004**, 126, 77-86 | 1.8 | 57 |
| 83 | Secondary twin variant selection in four types of double twins in titanium. *Acta Materialia*, **2018**, 152, 58-76 | 8.4 | 55 |
| 82 | Deformation twinning in hexagonal materials. *MRS Bulletin*, **2016**, 41, 314-319 | 3.2 | 54 |
| 81 | Rolling contact stress analysis with the application of a new plasticity model. *Wear*, **1996**, 191, 35-44 | 3.5 | 52 |
| 80 | Characteristic cyclic plastic deformation in ZK60 magnesium alloy. *International Journal of Plasticity*, **2017**, 91, 25-47 | 7.6 | 47 |
| 79 | Fatigue of ZK60 magnesium alloy under uniaxial loading. *International Journal of Fatigue*, **2014**, 64, 74-83 | 5 | 46 |
| 78 | Finite Element Modeling of Self-Loosening of Bolted Joints. *Journal of Mechanical Design, Transactions of the ASME*, **2007**, 129, 218-226 | 3 | 45 |
| 77 | An experimental investigation on cyclic plastic deformation and substructures of polycrystalline copper. *International Journal of Plasticity*, **2005**, 21, 2191-2211 | 7.6 | 45 |
| 76 | Cyclic deformation and fatigue damage in single-crystal magnesium under fully reversed strain-controlled tension–compression in the [1 01̄0] direction. *Scripta Materialia*, **2015**, 96, 41-44 | 5.6 | 44 |

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| 75 | Cyclic deformation and fatigue of rolled AZ80 magnesium alloy along different material orientations. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2016**, 677, 58-67 | 5.3 | 42 |
| 74 | Elastic-Plastic Finite Element Analysis of Partial Slip Rolling Contact. *Journal of Tribology*, **2002**, 124, 20-26 | 1.8 | 42 |
| 73 | Cyclic deformation and fatigue of extruded MgGdY magnesium alloy. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2013**, 561, 403-410 | 5.3 | 40 |
| 72 | A cyclic plasticity model for single crystals. *International Journal of Plasticity*, **2004**, 20, 2161-2178 | 7.6 | 40 |
| 71 | Effect of strain ratio on cyclic deformation and fatigue of extruded AZ61A magnesium alloy. *International Journal of Fatigue*, **2012**, 44, 225-233 | 5 | 39 |
| 70 | An Investigation of Cyclic Transient Behavior and Implications on Fatigue Life Estimates. *Journal of Engineering Materials and Technology, Transactions of the ASME*, **1997**, 119, 161-170 | 1.8 | 39 |
| 69 | Multiaxial Fatigue of 16MnR Steel. *Journal of Pressure Vessel Technology, Transactions of the ASME*, **2009**, 131, | 1.2 | 38 |
| 68 | Electron backscatter diffraction observations of twinning–detwinning evolution in a magnesium alloy subjected to large strain amplitude cyclic loading. *Materials & Design*, **2015**, 65, 762-765 | | 37 |
| 67 | Corrosion fatigue crack growth of AISI 4340 steel. *International Journal of Fatigue*, **2013**, 48, 156-164 | 5 | 36 |
| 66 | Fatigue life predictions by integrating EVICD fatigue damage model and an advanced cyclic plasticity theory. *International Journal of Plasticity*, **2009**, 25, 780-801 | 7.6 | 36 |
| 65 | Cyclic deformation and fatigue of extruded ZK60 magnesium alloy with aging effects. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2014**, 615, 262-272 | 5.3 | 35 |
| 64 | Twinning-Associated Boundaries in Hexagonal Close-Packed Metals. *Jom*, **2014**, 66, 95-101 | 2.1 | 34 |
| 63 | Fatigue of AL6XN Stainless Steel. *Journal of Engineering Materials and Technology, Transactions of the ASME*, **2008**, 130, | 1.8 | 34 |
| 62 | Comments on the Mroz multiple surface type plasticity models. *International Journal of Solids and Structures*, **1996**, 33, 1053-1068 | 3.1 | 33 |
| 61 | An experimental study of the torque-tension relationship for bolted joints. *International Journal of Materials and Product Technology*, **2001**, 16, 417 | 1 | 32 |
| 60 | Structural characteristics of {1012} non-cozone twin-twin interactions in magnesium. *Acta Materialia*, **2018**, 159, 65-76 | 8.4 | 31 |
| 59 | A study of fatigue damage development in extruded MgGdY magnesium alloy. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2014**, 589, 209-216 | 5.3 | 31 |
| 58 | An experimental study of fatigue crack propagation in extruded AZ31B magnesium alloy. *International Journal of Fatigue*, **2013**, 47, 174-183 | 5 | 31 |

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| 57 | Fatigue of polycrystalline copper with different grain sizes and texture. *International Journal of Plasticity*, **2006**, 22, 536-556 | 7.6 | 31 |
| 56 | An experimental investigation on fatigue crack growth of AL6XN stainless steel. *Engineering Fracture Mechanics*, **2008**, 75, 2002-2019 | 4.2 | 30 |
| 55 | 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 | 5.3 | 30 |
| 54 | Negligible effect of twin-slip interaction on hardening in deformation of a Mg-3Al-1Zn alloy. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing* , **2018**, 729, 285-293 | 5.3 | 26 |
| 53 | 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 | 5.3 | 24 |
| 52 | Microstructure and deformation mechanism of Mg6Al1ZnA alloy experienced tension□compression cyclic loading. *Scripta Materialia*, **2011**, 64, 233-236 | 5.6 | 23 |
| 51 | Modeling of fatigue crack growth of stainless steel 304L. *Mechanics of Materials*, **2008**, 40, 961-973 | 3.3 | 23 |
| 50 | Fatigue life and early cracking predictions of extruded AZ31B magnesium alloy using critical plane approaches. *International Journal of Fatigue*, **2016**, 88, 236-246 | 5 | 22 |
| 49 | Deformation analysis of notched components and assessment of approximate methods. *Fatigue and Fracture of Engineering Materials and Structures*, **2001**, 24, 729-740 | 3 | 21 |
| 48 | Fatigue of extruded AZ31B magnesium alloy under stress- and strain-controlled conditions including step loading. *Mechanics of Materials*, **2017**, 108, 77-86 | 3.3 | 20 |
| 47 | Loading history effect on fatigue crack growth of extruded AZ31B magnesium alloy. *Engineering Fracture Mechanics*, **2013**, 114, 42-54 | 4.2 | 19 |
| 46 | A Study of Inhomogeneous Plastic Deformation of 1045 Steel. *Journal of Engineering Materials and Technology, Transactions of the ASME*, **2004**, 126, 164-171 | 1.8 | 18 |
| 45 | An Experimental Study of the Crack Growth Behavior of 16MnR Pressure Vessel Steel. *Journal of Pressure Vessel Technology, Transactions of the ASME*, **2009**, 131, | 1.2 | 17 |
| 44 | An experimental study of inhomogeneous cyclic plastic deformation of 1045 steel under multiaxial cyclic loading. *International Journal of Plasticity*, **2005**, 21, 2174-2190 | 7.6 | 17 |
| 43 | Pre-compression effect on microstructure evolution of extruded pure polycrystalline magnesium during reversed tension load. *Materials Characterization*, **2017**, 134, 41-48 | 3.9 | 16 |
| 42 | Elastic-Plastic Finite Element Analysis of Nonsteady State Partial Slip Wheel-Rail Rolling Contact. *Journal of Tribology*, **2005**, 127, 713-721 | 1.8 | 15 |
| 41 | Fatigue life prediction of copper single crystals using a critical plane approach. *Engineering Fracture Mechanics*, **2006**, 73, 684-696 | 4.2 | 15 |
| 40 | Cyclic deformation and fatigue behavior of 316L stainless steel processed by surface mechanical rolling treatment. *International Journal of Fatigue*, **2020**, 134, 105469 | 5 | 15 |

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| 39 | A study of loading path influence on fatigue crack growth under combined loading. *International Journal of Fatigue*, **2006**, 28, 19-27 | 5 | 14 |
| 38 | An Experimental Study of Inhomogeneous Cyclic Plastic Deformation. *Journal of Engineering Materials and Technology, Transactions of the ASME*, **2001**, 123, 274-280 | 1.8 | 13 |
| 37 | Effects of initial {10-12} twins on cyclic deformation and fatigue of magnesium alloy at low strain amplitudes. *Materials Characterization*, **2019**, 149, 118-123 | 3.9 | 12 |
| 36 | In situ observation of cross-grain twin pair formation in pure magnesium. *Philosophical Magazine Letters*, **2018**, 98, 139-146 | 1 | 12 |
| 35 | A study of crack growth retardation due to artificially induced crack surface contact. *International Journal of Fatigue*, **2005**, 27, 1319-1327 | 5 | 12 |
| 34 | Aging effects on cyclic deformation and fatigue of extruded Mg□d□□r alloy. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2015**, 641, 1-9 | 5.3 | 11 |
| 33 | A study of fatigue crack growth with changing loading direction. *Engineering Fracture Mechanics*, **2007**, 74, 2014-2029 | 4.2 | 11 |
| 32 | An Experimental Investigation of the Effects of Clamped Length and Loading Direction on Self-Loosening of Bolted Joints. *Journal of Pressure Vessel Technology, Transactions of the ASME*, **2006**, 128, 388-393 | 1.2 | 11 |
| 31 | An Experimental Investigation on Frictional Properties of Bolted Joints **2002**, 59 | | 11 |
| 30 | Cyclic shear deformation and fatigue of extruded Mg-Gd-Y magnesium alloy. *Journal of Materials Science and Technology*, **2020**, 39, 74-81 | 9.1 | 11 |
| 29 | Modeling of fatigue crack growth in a pressure vessel steel Q345R. *Engineering Fracture Mechanics*, **2015**, 135, 245-258 | 4.2 | 10 |
| 28 | Stress-Corrosion Cracking of AISI 4340 Steel in Aqueous Environments. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2011**, 42, 434-447 | 2.3 | 10 |
| 27 | . *IEEE Transactions on Components and Packaging Technologies*, **2009**, 32, 53-62 | | 10 |
| 26 | An experimental study of the formation of typical dislocation patterns in polycrystalline copper under cyclic shear. *Acta Materialia*, **2007**, 55, 1831-1842 | 8.4 | 10 |
| 25 | An experimental study of anisotropic fatigue behavior of rolled AZ31B magnesium alloy. *Materials and Design*, **2020**, 186, 108266 | 8.1 | 10 |
| 24 | Tension-compression-tension tertiary twins in coarse-grained polycrystalline pure magnesium at room temperature. *Philosophical Magazine Letters*, **2015**, 95, 194-201 | 1 | 9 |
| 23 | Twinning characteristics in rolled AZ31B magnesium alloy under three stress states. *Materials Characterization*, **2021**, 175, 111050 | 3.9 | 9 |
| 22 | Twinning in rolled AZ31B magnesium alloy under free-end torsion. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2021**, 801, 140405 | 5.3 | 9 |

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| 21 | An experimental study of the orientation effect on fatigue crack propagation in rolled AZ31B magnesium alloy. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2016**, 676, 10-19 | 5.3 | 8 |
| 20 | Effect of Loading History on Stress Corrosion Cracking of 7075-T651 Aluminum Alloy in Saline Aqueous Environment. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2011**, 42, 448-460 | 2.3 | 8 |
| 19 | An Experimental Investigation on Self-Loosening of Bolted Joints **2003**, 17 | | 8 |
| 18 | Non-Metallic and Structurally Efficient Thermal Energy Storage Composites for Avionics Temperature Control, Part I: Thermal Characterization **2004**, | | 7 |
| 17 | Effect of texture evolution on corrosion resistance of AZ80 magnesium alloy subjected to applied force in simulated body fluid. *Materials Research Express*, **2020**, 7, 015406 | 1.7 | 6 |
| 16 | Inverse Slip Accompanying Twinning and Detwinning during Cyclic Loading of Magnesium Single Crystal. *Journal of Materials*, **2013**, 2013, 1-8 | | 6 |
| 15 | Compressive deformation of rolled AZ80 magnesium alloy along different material orientations. *Journal of Materials Science*, **2020**, 55, 4043-4053 | 4.3 | 6 |
| 14 | Tensile Elastic Behavior of a Zr□Cu□Ag□Al Bulk Metallic Glass. *Journal of Materials Science and Technology*, **2014**, 30, 595-598 | 9.1 | 5 |
| 13 | An Approach for Fatigue Life Prediction. *Journal of Engineering Materials and Technology, Transactions of the ASME*, **2007**, 129, 182-189 | 1.8 | 5 |
| 12 | Thermal and mechanical characteristics of a multi-functional Thermal Energy Storage structure | | 4 |
| 11 | Analysis of Residual Stresses and Cyclic Deformation for Induction Hardened Components **1995**, | | 4 |
| 10 | Influence of the contact pressure on rolling contact fatigue initiation of 1070 steel. *Procedia Engineering*, **2011**, 10, 3000-3005 | | 3 |
| 9 | Stress and Fatigue Analyses of Notched Shafts **1999**, | | 2 |
| 8 | 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. *Journal of Magnesium and Alloys*, **2021**, | 8.8 | 2 |
| 7 | Stress and fatigue analyses of an induction hardened component. *Metals and Materials International*, **1998**, 4, 520-523 | | 2 |
| 6 | An Experimental Investigation of the Effects of Clamped Length and Loading Direction on Self-Loosening of Bolted Joints **2004**, 129 | | 1 |
| 5 | On the intrusion-like co-zone twin-twin structure: An in situ observation. *Materials Letters*, **2021**, 286, 129140 | 3.3 | 1 |
| 4 | 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 | 5.3 | 0 |

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| 3 | An experimental study of the mechanical behavior of rolled AZ31B magnesium alloy under combined axial-torsion loading. *International Journal of Plasticity*, **2022**, 155, 103319 | 7.6 | 0 |
| 2 | Twin-Slip Interaction at Low Stress Stage Deformation in an AZ31 Mg Alloy. *Minerals, Metals and Materials Series*, **2018**, 193-198 | 0.3 | |
| 1 | A Continuum Model for Single Crystal Cyclic Plasticity. *Materials Research Society Symposia Proceedings*, **2003**, 779, 5301 | | |