# R T Qu

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/4003989/publications.pdf

Version: 2024-02-01

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|---|---|---|---|
| 65 papers | 1,865 citations | 218381 26 h-index | 276539 41 g-index |
| 66 all docs | 66 docs citations | 66 times ranked | 1087 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Progressive shear band propagation in metallic glasses under compression. Acta Materialia, 2015, 91, 19-33. | 3.8 | 125 |
| 2 | Macroscopic tensile plasticity of bulk metallic glass through designed artificial defects. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 534, 365-373. | 2.6 | 83 |
| 3 | A universal fracture criterion for high-strength materials. Scientific Reports, 2013, 3, . | 1.6 | 83 |
| 4 | Hybrid nanostructured aluminum alloy with super-high strength. NPG Asia Materials, 2015, 7, e229-e229. | 3.8 | 82 |
| 5 | Notch Effect of Materials: Strengthening or Weakening?. Journal of Materials Science and Technology, 2014, 30, 599-608. | 5.6 | 81 |
| 6 | Plastic deformability of metallic glass by artificial macroscopic notches. Acta Materialia, 2010, 58, 5420-5432. | 3.8 | 74 |
| 7 | Metallic glasses: Notch-insensitive materials. Scripta Materialia, 2012, 66, 733-736. | 2.6 | 73 |
| 8 | Tensile fracture criterion of metallic glass. Journal of Applied Physics, 2011, 109, . | 1.1 | 65 |
| 9 | Design of ductile bulk metallic glasses by adding â€œsoftâ€•atoms. Applied Physics Letters, 2012, 100, . | 1.5 | 60 |
| 10 | On the damage tolerance of 3-D printed Mg-Ti interpenetrating-phase composites with bioinspired architectures. Nature Communications, 2022, 13, . | 5.8 | 58 |
| 11 | Tensile fracture morphologies of bulk metallic glass. Journal of Applied Physics, 2010, 108, . | 1.1 | 53 |
| 12 | Microstructural percolation assisted breakthrough of trade-off between strength and ductility in CuZr-based metallic glass composites. Scientific Reports, 2014, 4, 4167. | 1.6 | 52 |
| 13 | Achieving macroscopic tensile plasticity of monolithic bulk metallic glass by surface treatment. Scripta Materialia, 2013, 68, 845-848. | 2.6 | 51 |
| 14 | Remarkably high fracture toughness of HfNbTaTiZr refractory high-entropy alloy. Journal of Materials Science and Technology, 2022, 123, 70-77. | 5.6 | 48 |
| 15 | Crack propagation mechanisms of AISI 4340 steels with different strength and toughness. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 729, 130-140. | 2.6 | 44 |
| 16 | Compressive fracture morphology and mechanism of metallic glass. Journal of Applied Physics, 2013, 114, . | 1.1 | 41 |
| 17 | Mechanical behavior of Al-based matrix composites reinforced with Mg58Cu28.5Gd11Ag2.5 metallic glasses. Advanced Powder Technology, 2014, 25, 635-639. | 2.0 | 41 |
| 18 | Yield strength and yield strain of metallic glasses and their correlations with glass transition temperature. Journal of Alloys and Compounds, 2015, 637, 44-54. | 2.8 | 40 |

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|---|---|---|---|
| 19 | Revealing the shear band cracking mechanism in metallic glass by X-ray tomography. Scripta Materialia, 2017, 133, 24-28. | 2.6 | 40 |
| 20 | Intrinsic impact toughness of relatively high strength alloys. Acta Materialia, 2018, 142, 226-235. | 3.8 | 35 |
| 21 | Generalized energy failure criterion. Scientific Reports, 2016, 6, 23359. | 1.6 | 34 |
| 22 | Direct observations on the evolution of shear bands into cracks in metallic glass. Journal of Materials Research, 2009, 24, 3130-3135. | 1.2 | 32 |
| 23 | Fracture mechanism of some brittle metallic glasses. Journal of Applied Physics, 2009, 105, 103519. | 1.1 | 32 |
| 24 | Shear band-mediated fatigue cracking mechanism of metallic glass at high stress level. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 627, 336-339. | 2.6 | 32 |
| 25 | Anisotropic mechanical behaviors and their structural dependences of crossed-lamellar structure in a bivalve shell. Materials Science and Engineering C, 2016, 59, 828-837. | 3.8 | 31 |
| 26 | Shear band propagation and plastic softening of metallic glass under cyclic compression. Journal of Alloys and Compounds, 2017, 695, 2016-2022. | 2.8 | 29 |
| 27 | Additive manufacturing of a martensitic Coâ€“Crâ€“Mo alloy: Towards circumventing the strengthâ€“ductility trade-off. Additive Manufacturing, 2021, 37, 101725. | 1.7 | 27 |
| 28 | Relation Between Strength and Hardness of High-Entropy Alloys. Acta Metallurgica Sinica (English) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 | 1.5 | 25 |
| 29 | Deformation behavior and enhanced plasticity of Ti-based metallic glasses with notches. Philosophical Magazine, 2010, 90, 3867-3877. | 0.7 | 24 |
| 30 | Size-dependent failure of the strongest bulk metallic glass. Acta Materialia, 2019, 178, 249-262. | 3.8 | 24 |
| 31 | On the fracture mechanisms of nacre: Effects of structural orientation. Journal of Biomechanics, 2019, 96, 109336. | 0.9 | 22 |
| 32 | Evolution of shear-band cracking in metallic glass under cyclic compression. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 696, 267-272. | 2.6 | 21 |
| 33 | Gradual shear band cracking and apparent softening of metallic glass under low temperature compression. Intermetallics, 2017, 87, 45-54. | 1.8 | 20 |
| 34 | Roomâ€Temperature Mechanical Properties of V<sub>20</sub>Nb<sub>20</sub>Mo<sub>20</sub>Ta<sub>20</sub>W<sub>20</sub> Highâ€Entropy Alloy. Advanced Engineering Materials, 2018, 20, 1800028. | 1.6 | 20 |
| 35 | Shear band fracture in metallic glass: Sample size effect. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 739, 377-382. | 2.6 | 20 |
| 36 | Elasticity dominates strength and failure in metallic glasses. Journal of Applied Physics, 2015, 117, . | 1.1 | 19 |

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| 37 | Shear band fracture in metallic glass: Hot or cold?. Scripta Materialia, 2019, 162, 136-140. | 2.6 | 19 |
| 38 | Flaw-insensitive fracture of a micrometer-sized brittle metallic glass. Acta Materialia, 2021, 218, 117219. | 3.8 | 17 |
| 39 | In situ observation of bending stressâ€"deflection response of metallic glass. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 582, 155-161. | 2.6 | 16 |
| 40 | Fatigue damage and fracture behavior of metallic glass under cyclic compression. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 717, 41-47. | 2.6 | 16 |
| 41 | Improving fatigue property of metallic glass by tailoring the microstructure to suppress shear band formation. Materialia, 2019, 7, 100407. | 1.3 | 15 |
| 42 | Precisely predicting and designing the elasticity of metallic glasses. Journal of Applied Physics, 2014, 115, . | 1.1 | 13 |
| 43 | Stepwise work hardening induced by individual grain boundary in Cu bicrystal micropillars. Scientific Reports, 2015, 5, 15631. | 1.6 | 13 |
| 44 | Designing metallic glasses with optimal combinations of glass-forming ability and mechanical properties. Journal of Materials Science and Technology, 2021, 67, 254-264. | 5.6 | 13 |
| 45 | The Minimum Energy Density Criterion for the Competition between Shear and Flat Fracture. Advanced Engineering Materials, 2018, 20, 1800150. | 1.6 | 11 |
| 46 | Compression-compression fatigue behavior of a Zr-based metallic glass with different free volume contents. Journal of Alloys and Compounds, 2019, 810, 151924. | 2.8 | 10 |
| 47 | Notch fatigue behavior: Metallic glass versus ultra-high strength steel. Scientific Reports, 2016, 6, 35557. | 1.6 | 9 |
| 48 | Shear banding stability and fracture of metallic glass: Effect of external confinement. Journal of the Mechanics and Physics of Solids, 2020, 138, 103922. | 2.3 | 9 |
| 49 | Shear band evolution during large plastic deformation of brittle and ductile metallic glasses. Philosophical Magazine Letters, 2010, 90, 573-579. | 0.5 | 8 |
| 50 | Enhanced plastic deformation in a metallic glass induced by notches. Philosophical Magazine Letters, 2010, 90, 875-882. | 0.5 | 7 |
| 51 | Compression behavior of inter-particle regions in high-strength Al84Ni7Gd6Co3 alloy. Materials Letters, 2016, 185, 25-28. | 1.3 | 7 |
| 52 | A new method to estimate the plane strain fracture toughness of materials. Fatigue and Fracture of Engineering Materials and Structures, 2019, 42, 415-424. | 1.7 | 7 |
| 53 | Failure surfaces of high-strength materials predicted by a universal failure criterion. International Journal of Fracture, 2018, 211, 237-252. | 1.1 | 5 |
| 54 | Anisotropy of tensile strength and fracture mode of perfect face-centered-cubic crystals. Journal of Applied Physics, 2015, 117, . | 1.1 | 4 |

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| 55 | Shear banding and fracture behaviors of a bulk metallic glass studied via in-situ bending experiments with notched and un-notched specimens. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 798, 140005. | 2.6 | 4 |
| 56 | Shear Band Evolution under Cyclic Loading and Fatigue Property in Metallic Glasses: A Brief Review. Materials, 2021, 14, 3595. | 1.3 | 4 |
| 57 | Locating the optimal microstructural state against dynamic perforation by evaluating the strain-rate dependences of strength and hardness. International Journal of Impact Engineering, 2021, 152, 103856. | 2.4 | 4 |
| 58 | Macroscopic Bifurcation and Fracture Mechanism of Polymethyl Methacrylate. Advanced Engineering Materials, 2015, 17, 1454-1464. | 1.6 | 3 |
| 59 | A new idea of modeling shear band in metallic glass based on the concept of distributed dislocation. Journal of Non-Crystalline Solids, 2022, 577, 121328. | 1.5 | 3 |
| 60 | Fracture and strength of a TiZr-based metallic glass at low temperatures. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 768, 138453. | 2.6 | 2 |
| 61 | Deformation map of metallic glass: Normal stress effect. Science China Materials, 2020, 63, 2620-2626. | 3.5 | 2 |
| 62 | Intrinsic Strength Asymmetry Between Tension and Compression of Perfect Face-Centered-Cubic Crystals. Acta Metallurgica Sinica (English Letters), 2016, 29, 755-762. | 1.5 | 1 |
| 63 | Understanding the tensile fracture of deeply-notched metallic glasses. International Journal of Solids and Structures, 2020, 207, 70-81. | 1.3 | 1 |
| 64 | Size-Dependent Failure of the Strongest Bulk Metallic Glass. SSRN Electronic Journal, 0, , . | 0.4 | 0 |
| 65 | Deformation Map of Metallic Glasses: Mean Stress Effect. SSRN Electronic Journal, 0, , . | 0.4 | 0 |