

# R T Qu

## List of Publications by Year in Descending Order

**Source:** <https://exaly.com/author-pdf/4003989/r-t-qu-publications-by-year.pdf>

**Version:** 2024-04-25

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

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

61  
papers

1,338  
citations

21  
h-index

35  
g-index

65  
ext. papers

1,613  
ext. citations

4.8  
avg, IF

4.84  
L-index

#	Paper	IF	Citations
61	A new idea of modeling shear band in metallic glass based on the concept of distributed dislocation. <i>Journal of Non-Crystalline Solids</i> , <b>2022</b> , 577, 121328	3.9	1
60	Remarkably high fracture toughness of HfNbTaTiZr refractory high-entropy alloy. <i>Journal of Materials Science and Technology</i> , <b>2022</b> , 123, 70-77	9.1	1
59	Locating the optimal microstructural state against dynamic perforation by evaluating the strain-rate dependences of strength and hardness. <i>International Journal of Impact Engineering</i> , <b>2021</b> , 152, 103856	4	0
58	Relation Between Strength and Hardness of High-Entropy Alloys. <i>Acta Metallurgica Sinica (English Letters)</i> , <b>2021</b> , 34, 1461	2.5	3
57	Designing metallic glasses with optimal combinations of glass-forming ability and mechanical properties. <i>Journal of Materials Science and Technology</i> , <b>2021</b> , 67, 254-264	9.1	4
56	Additive manufacturing of a martensitic CoCrMo alloy: Towards circumventing the strength-ductility trade-off. <i>Additive Manufacturing</i> , <b>2021</b> , 37, 101725	6.1	6
55	Flaw-insensitive fracture of a micrometer-sized brittle metallic glass. <i>Acta Materialia</i> , <b>2021</b> , 218, 117219	8.4	5
54	Shear banding stability and fracture of metallic glass: Effect of external confinement. <i>Journal of the Mechanics and Physics of Solids</i> , <b>2020</b> , 138, 103922	5	5
53	Understanding the tensile fracture of deeply-notched metallic glasses. <i>International Journal of Solids and Structures</i> , <b>2020</b> , 207, 70-81	3.1	
52	Deformation map of metallic glass: Normal stress effect. <i>Science China Materials</i> , <b>2020</b> , 63, 2620-2626	7.1	
51	Shear banding and fracture behaviors of a bulk metallic glass studied via in-situ bending experiments with notched and un-notched specimens. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2020</b> , 798, 140005	5.3	3
50	Size-dependent failure of the strongest bulk metallic glass. <i>Acta Materialia</i> , <b>2019</b> , 178, 249-262	8.4	14
49	On the fracture mechanisms of nacre: Effects of structural orientation. <i>Journal of Biomechanics</i> , <b>2019</b> , 96, 109336	2.9	7
48	Fracture and strength of a TiZr-based metallic glass at low temperatures. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2019</b> , 768, 138453	5.3	1
47	Improving fatigue property of metallic glass by tailoring the microstructure to suppress shear band formation. <i>Materialia</i> , <b>2019</b> , 7, 100407	3.2	11
46	Compression-compression fatigue behavior of a Zr-based metallic glass with different free volume contents. <i>Journal of Alloys and Compounds</i> , <b>2019</b> , 810, 151924	5.7	5
45	A new method to estimate the plane strain fracture toughness of materials. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , <b>2019</b> , 42, 415-424	3	2

44	Shear band fracture in metallic glass: Hot or cold?. <i>Scripta Materialia</i> , <b>2019</b> , 162, 136-140	5.6	11
43	Shear band fracture in metallic glass: Sample size effect. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2019</b> , 739, 377-382	5.3	15
42	Room-Temperature Mechanical Properties of V20Nb20Mo20Ta20W20 High-Entropy Alloy. <i>Advanced Engineering Materials</i> , <b>2018</b> , 20, 1800028	3.5	11
41	Fatigue damage and fracture behavior of metallic glass under cyclic compression. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2018</b> , 717, 41-47	5.3	10
40	The Minimum Energy Density Criterion for the Competition between Shear and Flat Fracture. <i>Advanced Engineering Materials</i> , <b>2018</b> , 20, 1800150	3.5	6
39	Failure surfaces of high-strength materials predicted by a universal failure criterion. <i>International Journal of Fracture</i> , <b>2018</b> , 211, 237-252	2.3	4
38	Intrinsic impact toughness of relatively high strength alloys. <i>Acta Materialia</i> , <b>2018</b> , 142, 226-235	8.4	20
37	Crack propagation mechanisms of AISI 4340 steels with different strength and toughness. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2018</b> , 729, 130-140	5.3	21
36	Revealing the shear band cracking mechanism in metallic glass by X-ray tomography. <i>Scripta Materialia</i> , <b>2017</b> , 133, 24-28	5.6	31
35	Evolution of shear-band cracking in metallic glass under cyclic compression. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2017</b> , 696, 267-272	5.3	17
34	Gradual shear band cracking and apparent softening of metallic glass under low temperature compression. <i>Intermetallics</i> , <b>2017</b> , 87, 45-54	3.5	19
33	Shear band propagation and plastic softening of metallic glass under cyclic compression. <i>Journal of Alloys and Compounds</i> , <b>2017</b> , 695, 2016-2022	5.7	21
32	Intrinsic Strength Asymmetry Between Tension and Compression of Perfect Face-Centered-Cubic Crystals. <i>Acta Metallurgica Sinica (English Letters)</i> , <b>2016</b> , 29, 755-762	2.5	1
31	Anisotropic mechanical behaviors and their structural dependences of crossed-lamellar structure in a bivalve shell. <i>Materials Science and Engineering C</i> , <b>2016</b> , 59, 828-837	8.3	21
30	Notch fatigue behavior: Metallic glass versus ultra-high strength steel. <i>Scientific Reports</i> , <b>2016</b> , 6, 35557	4.9	8
29	Generalized energy failure criterion. <i>Scientific Reports</i> , <b>2016</b> , 6, 23359	4.9	21
28	Compression behavior of inter-particle regions in high-strength Al84Ni7Gd6Co3 alloy. <i>Materials Letters</i> , <b>2016</b> , 185, 25-28	3.3	7
27	Shear band-mediated fatigue cracking mechanism of metallic glass at high stress level. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2015</b> , 627, 336-339	5.3	28

26	Yield strength and yield strain of metallic glasses and their correlations with glass transition temperature. <i>Journal of Alloys and Compounds</i> , <b>2015</b> , 637, 44-54	5.7	28
25	Progressive shear band propagation in metallic glasses under compression. <i>Acta Materialia</i> , <b>2015</b> , 91, 19-33	8.4	96
24	Elasticity dominates strength and failure in metallic glasses. <i>Journal of Applied Physics</i> , <b>2015</b> , 117, 014901	5.5	16
23	Stepwise work hardening induced by individual grain boundary in Cu bicrystal micropillars. <i>Scientific Reports</i> , <b>2015</b> , 5, 15631	4.9	9
22	Macroscopic Bifurcation and Fracture Mechanism of Polymethyl Methacrylate. <i>Advanced Engineering Materials</i> , <b>2015</b> , 17, 1454-1464	3.5	0
21	Anisotropy of tensile strength and fracture mode of perfect face-centered-cubic crystals. <i>Journal of Applied Physics</i> , <b>2015</b> , 117, 214906	2.5	2
20	Hybrid nanostructured aluminum alloy with super-high strength. <i>NPG Asia Materials</i> , <b>2015</b> , 7, e229-e229	10.3	70
19	Microstructural percolation assisted breakthrough of trade-off between strength and ductility in CuZr-based metallic glass composites. <i>Scientific Reports</i> , <b>2014</b> , 4, 4167	4.9	42
18	Mechanical behavior of Al-based matrix composites reinforced with Mg <sub>58</sub> Cu <sub>28.5</sub> Gd <sub>11</sub> Ag <sub>2.5</sub> metallic glasses. <i>Advanced Powder Technology</i> , <b>2014</b> , 25, 635-639	4.6	37
17	Notch Effect of Materials: Strengthening or Weakening?. <i>Journal of Materials Science and Technology</i> , <b>2014</b> , 30, 599-608	9.1	62
16	Precisely predicting and designing the elasticity of metallic glasses. <i>Journal of Applied Physics</i> , <b>2014</b> , 115, 203513	2.5	10
15	In situ observation of bending stress-deflection response of metallic glass. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2013</b> , 582, 155-161	5.3	13
14	Achieving macroscopic tensile plasticity of monolithic bulk metallic glass by surface treatment. <i>Scripta Materialia</i> , <b>2013</b> , 68, 845-848	5.6	45
13	Compressive fracture morphology and mechanism of metallic glass. <i>Journal of Applied Physics</i> , <b>2013</b> , 114, 193504	2.5	32
12	A universal fracture criterion for high-strength materials. <i>Scientific Reports</i> , <b>2013</b> , 3,	4.9	74
11	Metallic glasses: Notch-insensitive materials. <i>Scripta Materialia</i> , <b>2012</b> , 66, 733-736	5.6	65
10	Macroscopic tensile plasticity of bulk metallic glass through designed artificial defects. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2012</b> , 534, 365-373	5.3	75
9	Design of ductile bulk metallic glasses by adding soft atoms. <i>Applied Physics Letters</i> , <b>2012</b> , 100, 141901	3.4	53

8	Tensile fracture criterion of metallic glass. <i>Journal of Applied Physics</i> , <b>2011</b> , 109, 083544	2.5	55
7	Enhanced plastic deformation in a metallic glass induced by notches. <i>Philosophical Magazine Letters</i> , <b>2010</b> , 90, 875-882	1	4
6	Tensile fracture morphologies of bulk metallic glass. <i>Journal of Applied Physics</i> , <b>2010</b> , 108, 063509	2.5	50
5	Shear band evolution during large plastic deformation of brittle and ductile metallic glasses. <i>Philosophical Magazine Letters</i> , <b>2010</b> , 90, 573-579	1	7
4	Deformation behavior and enhanced plasticity of Ti-based metallic glasses with notches. <i>Philosophical Magazine</i> , <b>2010</b> , 90, 3867-3877	1.6	22
3	Plastic deformability of metallic glass by artificial macroscopic notches. <i>Acta Materialia</i> , <b>2010</b> , 58, 5420-5432	5.1	63
2	Direct observations on the evolution of shear bands into cracks in metallic glass. <i>Journal of Materials Research</i> , <b>2009</b> , 24, 3130-3135	2.5	31
1	Fracture mechanism of some brittle metallic glasses. <i>Journal of Applied Physics</i> , <b>2009</b> , 105, 103519	2.5	30