

# R L Narayan

## List of Publications by Year in descending order

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Version: 2024-02-01

51  
papers

1,348  
citations

361413

20  
h-index

361022

35  
g-index

51  
all docs

51  
docs citations

51  
times ranked

1067  
citing authors

#	ARTICLE	IF	CITATIONS
1	A Comparative Study of Microstructures and Mechanical Behavior of Laser Metal Deposited and Electron Beam Melted Ti-6Al-4V. <i>Journal of Materials Engineering and Performance</i> , 2022, 31, 542-551.	2.5	10
2	Fracture toughness of a rejuvenated $\hat{\text{T}}^2\text{-Ti}$ reinforced bulk metallic glass matrix composite. <i>Journal of Materials Science and Technology</i> , 2022, 106, 225-235.	10.7	19
3	On simultaneous enhancement in local yield strength and plasticity of short-term annealed bulk metallic glasses. <i>Journal of Alloys and Compounds</i> , 2022, 898, 162960.	5.5	7
4	Mechanical behavior and dynamic strain ageing in Haynes $\hat{\text{A}}^{\text{®}}282$ superalloy subjected to accelerated ageing. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2022, 832, 142486.	5.6	7
5	Fracture behavior of laser powder bed fusion fabricated Ti41Nb via in-situ alloying. <i>Acta Materialia</i> , 2022, 225, 117593.	7.9	33
6	Role of metastable austenite in the fatigue resistance of 304L stainless steel produced by laser-based powder bed fusion. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2022, 837, 142744.	5.6	9
7	Temperature-dependence of impact toughness of bulk metallic glass composites containing phase transformable $\hat{\text{T}}^2\text{-Ti}$ crystals. <i>Acta Materialia</i> , 2022, 229, 117827.	7.9	14
8	Enhanced plasticity in laser additive manufactured Nb-reinforced bulk metallic glass composite. <i>Journal of Alloys and Compounds</i> , 2022, 918, 165539.	5.5	9
9	Size effects and failure regimes in notched micro-cantilever beam fracture. <i>Acta Materialia</i> , 2022, 234, 118041.	7.9	5
10	Additive manufacturing of novel Ti-30Nb-2Zr biomimetic scaffolds for successful limb salvage. <i>Materials Today: Proceedings</i> , 2022, 64, 1711-1716.	1.8	12
11	Oxidation assisted recrystallization and cracking at grain boundaries in Nimonic 80 $\hat{\text{A}}$ during elevated temperature service. <i>Corrosion Science</i> , 2022, 205, 110452.	6.6	4
12	A generalised hot cracking criterion for nickel-based superalloys additively manufactured by electron beam melting. <i>Additive Manufacturing</i> , 2021, 37, 101633.	3.0	11
13	Nanometer-scale precipitations in a selective electron beam melted nickel-based superalloy. <i>Scripta Materialia</i> , 2021, 194, 113661.	5.2	9
14	Resolving the porosity-unmelted inclusion dilemma during in-situ alloying of Ti34Nb via laser powder bed fusion. <i>Acta Materialia</i> , 2021, 204, 116522.	7.9	93
15	Laser powder bed fusion of compositionally graded CoCrMo-Inconel 718. <i>Additive Manufacturing</i> , 2021, 40, 101926.	3.0	18
16	Refined Tin Nanoparticles by Oxidation $\hat{\text{A}}$ Reduction Treatment for Use in Potassium-Ion Batteries. <i>ACS Applied Nano Materials</i> , 2021, 4, 4432-4440.	5.0	1
17	A real-time TEM study of the deformation mechanisms in $\hat{\text{T}}^2\text{-Ti}$ reinforced bulk metallic glass composites. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021, 818, 141427.	5.6	12
18	Shear fracture in bulk metallic glass composites. <i>Acta Materialia</i> , 2021, 213, 116963.	7.9	33

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19	Influence of simultaneous alloying with Ca and Sc on the high temperature deformation mechanism, texture, and recrystallization behavior of Mg-Ca-Sc alloys. <i>Materials Characterization</i> , 2021, 179, 111343.	4.4	18
20	Mechanical Behavior of Laser Powder Bed Fusion Processed Inconel 625 Alloy. , 2021, 6, 975-990.		15
21	Fracture toughness of 304L austenitic stainless steel produced by laser powder bed fusion. <i>Scripta Materialia</i> , 2021, 202, 114002.	5.2	30
22	A low-cost intermediate temperature Fe/Graphite battery for grid-scale energy storage. <i>Energy Storage Materials</i> , 2020, 25, 801-810.	18.0	10
23	Spherical indentation response of a Ni double gyroid nanolattice. <i>Scripta Materialia</i> , 2020, 188, 64-68.	5.2	5
24	Effect of Ageing on Microstructure, Mechanical Properties and Creep Behavior of Alloy 740H. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2020, 51, 5169-5179.	2.2	7
25	Cooperative Shear in Bulk Metallic Glass Composites Containing Metastable $\hat{\text{I}}^2$ -Ti Dendrites. <i>Physical Review Letters</i> , 2020, 125, 055501.	7.8	16
26	Room temperature dynamic indentation response of partially crystallized Zr $\hat{\text{I}}$ -Cu metallic glass. <i>Journal of Alloys and Compounds</i> , 2020, 834, 155161.	5.5	8
27	Statistical nature of the incipient plasticity in amorphous alloys. <i>Scripta Materialia</i> , 2020, 187, 360-365.	5.2	14
28	Stress rupture embrittlement in cast Ni-based superalloy 625. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020, 793, 139811.	5.6	13
29	Multi-scale microstructural investigation of a laser 3D printed Ni-based superalloy. <i>Additive Manufacturing</i> , 2020, 34, 101220.	3.0	12
30	Tuning the microstructure and metastability of $\hat{\text{I}}^2$ -Ti for simultaneous enhancement of strength and ductility of Ti-based bulk metallic glass composites. <i>Acta Materialia</i> , 2019, 168, 24-36.	7.9	95
31	Fracture of notched ductile bulk metallic glass bars subjected to tension-torsion: Experiments and simulations. <i>Acta Materialia</i> , 2019, 168, 309-320.	7.9	21
32	Capacity extended bismuth-antimony cathode for high-performance liquid metal battery. <i>Journal of Power Sources</i> , 2018, 381, 38-45.	7.8	43
33	Insight from in situ microscopy into which precipitate morphology can enable high strength in magnesium alloys. <i>Journal of Materials Science and Technology</i> , 2018, 34, 1061-1066.	10.7	60
34	A quantitative connection between shear band mediated plasticity and fracture initiation toughness of metallic glasses. <i>Acta Materialia</i> , 2018, 150, 69-77.	7.9	48
35	Temperature-dependence of mode I fracture toughness of a bulk metallic glass. <i>Acta Materialia</i> , 2018, 144, 325-336.	7.9	40
36	Superior full-cell cycling and rate performance achieved by carbon coated hollow Fe $\text{3O}_4$ nanoellipsoids for lithium ion battery. <i>Electrochimica Acta</i> , 2018, 288, 71-81.	5.2	24

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37	Effects of notches on the deformation behavior of submicron sized metallic glasses: Insights from in situ experiments. <i>Acta Materialia</i> , 2018, 154, 172-181.	7.9	28
38	Reduced expansion and improved full-cell cycling of a SnO <sub>x</sub> /C embedded structure for lithium-ion batteries. <i>Journal of Materials Chemistry A</i> , 2018, 6, 15738-15746.	10.3	9
39	Synthesis and properties of flexible nanocable with carbon nanotube @ polymer hierarchical structure. <i>Nanotechnology</i> , 2017, 28, 095710.	2.6	1
40	Intermediate Temperature Brittleness in Metallic Glasses. <i>Advanced Materials</i> , 2017, 29, 1605537.	21.0	34
41	In Situ Study of Deformation Twinning and Detwinning in Helium Irradiated Small-Volume Copper. <i>Advanced Engineering Materials</i> , 2017, 19, 1700357.	3.5	9
42	Discrete drops in the electrical contact resistance during nanoindentation of a bulk metallic glass. <i>Applied Physics Letters</i> , 2016, 108, 181903.	3.3	16
43	Chestnut-like SnO <sub>2</sub> /C nanocomposites with enhanced lithium ion storage properties. <i>Nano Energy</i> , 2016, 30, 885-891.	16.0	64
44	Fracture in metallic glasses: mechanics and mechanisms. <i>International Journal of Fracture</i> , 2015, 191, 53-75.	2.2	63
45	On the variability in fracture toughness of "ductile" bulk metallic glasses. <i>Scripta Materialia</i> , 2015, 102, 75-78.	5.2	48
46	Wallner lines, crack velocity and mechanisms of crack nucleation and growth in a brittle bulk metallic glass. <i>Acta Materialia</i> , 2014, 80, 407-420.	7.9	64
47	On the microstructure-tensile property correlations in bulk metallic glass matrix composites with crystalline dendrites. <i>Acta Materialia</i> , 2012, 60, 5089-5100.	7.9	126
48	Effect of strain rate and temperature on the plastic deformation behaviour of a bulk metallic glass composite. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2012, 534, 476-484.	5.6	39
49	On the hardness and elastic modulus of bulk metallic glass matrix composites. <i>Scripta Materialia</i> , 2010, 63, 768-771.	5.2	62
50	Nanometer-Scale Microstructural Evolution and a Generalized Hot Cracking Criterion for Nickel-Based Single Crystal Superalloy Additively Manufactured by Electron Beam Melting. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
51	Selective Laser Melting of Compositionally Graded Alloys. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0