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	On the microstructureâ€“tensile property correlations in bulk metallic glass matrix composites with crystalline dendrites. Acta Materialia, 2012, 60, 5089-5100.	7.9	126
2	Tuning the microstructure and metastability of Î²-Ti for simultaneous enhancement of strength and ductility of Ti-based bulk metallic glass composites. Acta Materialia, 2019, 168, 24-36.	7.9	95
3	Resolving the porosity-unmelted inclusion dilemma during in-situ alloying of Ti34Nb via laser powder bed fusion. Acta Materialia, 2021, 204, 116522.	7.9	93
4	Wallner lines, crack velocity and mechanisms of crack nucleation and growth in a brittle bulk metallic glass. Acta Materialia, 2014, 80, 407-420.	7.9	64
5	Chestnut-like SnO2/C nanocomposites with enhanced lithium ion storage properties. Nano Energy, 2016, 30, 885-891.	16.0	64
6	Fracture in metallic glasses: mechanics and mechanisms. International Journal of Fracture, 2015, 191, 53-75.	2.2	63
7	On the hardness and elastic modulus of bulk metallic glass matrix composites. Scripta Materialia, 2010, 63, 768-771.	5.2	62
8	Insight from in situ microscopy into which precipitate morphology can enable high strength in magnesium alloys. Journal of Materials Science and Technology, 2018, 34, 1061-1066.	10.7	60
9	On the variability in fracture toughness of â€˜ductileâ€™ bulk metallic glasses. Scripta Materialia, 2015, 102, 75-78.	5.2	48
10	A quantitative connection between shear band mediated plasticity and fracture initiation toughness of metallic glasses. Acta Materialia, 2018, 150, 69-77.	7.9	48
11	Capacity extended bismuth-antimony cathode for high-performance liquid metal battery. Journal of Power Sources, 2018, 381, 38-45.	7.8	43
12	Temperature-dependence of mode I fracture toughness of a bulk metallic glass. Acta Materialia, 2018, 144, 325-336.	7.9	40
13	Effect of strain rate and temperature on the plastic deformation behaviour of a bulk metallic glass composite. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 534, 476-484.	5.6	39
14	Intermediate Temperature Brittleness in Metallic Glasses. Advanced Materials, 2017, 29, 1605537.	21.0	34
15	Shear fracture in bulk metallic glass composites. Acta Materialia, 2021, 213, 116963.	7.9	33
16	Fracture behavior of laser powder bed fusion fabricated Ti41Nb via in-situ alloying. Acta Materialia, 2022, 225, 117593.	7.9	33
17	Fracture toughness of 304L austenitic stainless steel produced by laser powder bed fusion. Scripta Materialia, 2021, 202, 114002.	5.2	30
18	Effects of notches on the deformation behavior of submicron sized metallic glasses: Insights from in situ experiments. Acta Materialia, 2018, 154, 172-181.	7.9	28

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19	Superior full-cell cycling and rate performance achieved by carbon coated hollow Fe3O4 nanoellipsoids for lithium ion battery. Electrochimica Acta, 2018, 288, 71-81.	5.2	24
20	Fracture of notched ductile bulk metallic glass bars subjected to tension-torsion: Experiments and simulations. Acta Materialia, 2019, 168, 309-320.	7.9	21
21	Fracture toughness of a rejuvenated Î²-Ti reinforced bulk metallic glass matrix composite. Journal of Materials Science and Technology, 2022, 106, 225-235.	10.7	19
22	Laser powder bed fusion of compositionally graded CoCrMo-Inconel 718. Additive Manufacturing, 2021, 40, 101926.	3.0	18
23	Influence of simultaneous alloying with Ca and Sc on the high temperature deformation mechanism, texture, and recrystallization behavior of Mg-Ca-Sc alloys. Materials Characterization, 2021, 179, 111343.	4.4	18
24	Discrete drops in the electrical contact resistance during nanoindentation of a bulk metallic glass. Applied Physics Letters, 2016, 108, 181903.	3.3	16
25	Cooperative Shear in Bulk Metallic Glass Composites Containing Metastable Î² -Ti Dendrites. Physical Review Letters, 2020, 125, 055501.	7.8	16
26	Mechanical Behavior of Laser Powder Bed Fusion Processed Inconel 625 Alloy. , 2021, 6, 975-990.		15
27	Statistical nature of the incipient plasticity in amorphous alloys. Scripta Materialia, 2020, 187, 360-365.	5.2	14
28	Temperature-dependence of impact toughness of bulk metallic glass composites containing phase transformable Î²-Ti crystals. Acta Materialia, 2022, 229, 117827.	7.9	14
29	Stress rupture embrittlement in cast Ni-based superalloy 625. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 793, 139811.	5.6	13
30	Multi-scale microstructural investigation of a laser 3D printed Ni-based superalloy. Additive Manufacturing, 2020, 34, 101220.	3.0	12
31	A real-time TEM study of the deformation mechanisms in Î²-Ti reinforced bulk metallic glass composites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 818, 141427.	5.6	12
32	Additive manufacturing of novel Ti-30Nb-2Zr biomimetic scaffolds for successful limb salvage. Materials Today: Proceedings, 2022, 64, 1711-1716.	1.8	12
33	A generalised hot cracking criterion for nickel-based superalloys additively manufactured by electron beam melting. Additive Manufacturing, 2021, 37, 101633.	3.0	11
34	A low-cost intermediate temperature Fe/Graphite battery for grid-scale energy storage. Energy Storage Materials, 2020, 25, 801-810.	18.0	10
35	A Comparative Study of Microstructures and Mechanical Behavior of Laser Metal Deposited and Electron Beam Melted Ti-6Al-4V. Journal of Materials Engineering and Performance, 2022, 31, 542-551.	2.5	10
36	In Situ Study of Deformation Twinning and Detwinning in Helium Irradiated Smallâ€Volume Copper. Advanced Engineering Materials, 2017, 19, 1700357.	3.5	9

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37	Reduced expansion and improved full-cell cycling of a SnO_x#C embedded structure for lithium-ion batteries. Journal of Materials Chemistry A, 2018, 6, 15738-15746.	10.3	9
38	Nanometer-scale precipitations in a selective electron beam melted nickel-based superalloy. Scripta Materialia, 2021, 194, 113661.	5.2	9
39	Role of metastable austenite in the fatigue resistance of 304L stainless steel produced by laser-based powder bed fusion. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 837, 142744.	5.6	9
40	Enhanced plasticity in laser additive manufactured Nb-reinforced bulk metallic glass composite. Journal of Alloys and Compounds, 2022, 918, 165539.	5.5	9
41	Room temperature dynamic indentation response of partially crystallized Zrâ€“Cu metallic glass. Journal of Alloys and Compounds, 2020, 834, 155161.	5.5	8
42	Effect of Ageing on Microstructure, Mechanical Properties and Creep Behavior of Alloy 740H. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2020, 51, 5169-5179.	2.2	7
43	On simultaneous enhancement in local yield strength and plasticity of short-term annealed bulk metallic glasses. Journal of Alloys and Compounds, 2022, 898, 162960.	5.5	7
44	Mechanical behavior and dynamic strain ageing in HaynesÂ®282 superalloy subjected to accelerated ageing. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 832, 142486.	5.6	7
45	Spherical indentation response of a Ni double gyroid nanolattice. Scripta Materialia, 2020, 188, 64-68.	5.2	5
46	Size effects and failure regimes in notched micro-cantilever beam fracture. Acta Materialia, 2022, 234, 118041.	7.9	5
47	Oxidation assisted recrystallization and cracking at grain boundaries in Nimonic 80ÂA during elevated temperature service. Corrosion Science, 2022, 205, 110452.	6.6	4
48	Synthesis and properties of flexible nanocable with carbon nanotube @ polymer hierarchical structure. Nanotechnology, 2017, 28, 095710.	2.6	1
49	Refined Tin Nanoparticles by Oxidationâ€“Reduction Treatment for Use in Potassium-Ion Batteries. ACS Applied Nano Materials, 2021, 4, 4432-4440.	5.0	1
50	Nanometer-Scale Microstructural Evolution and a Generalized Hot Cracking Criterion for Nickel-Based Single Crystal Superalloy Additively Manufactured by Electron Beam Melting. SSRN Electronic Journal, 0, , .	0.4	0
51	Selective Laser Melting of Compositionally Graded Alloys. SSRN Electronic Journal, 0, , .	0.4	0