Douglas C Hofmann

List of Publications by Year
in descending order

46	4,781	236925 25	233421 45
papers	citations	h-index	g-index

47	47	47	3561
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Controlling microstructure of FeCrMoBC amorphous metal matrix composites via laser directed energy deposition. Journal of Alloys and Compounds, 2021, 857, 157537.	5.5	15
2	Thermophysical Properties of an Fe 57.75 Ni 19.25 Mo 10 C 5 B 8 Glassâ€Forming Alloy Measured in Microgravity. Advanced Engineering Materials, 2021, 23, 2001143.	3.5	7
3	Structured fabrics with tunable mechanical properties. Nature, 2021, 596, 238-243.	27.8	155
4	Towards additively manufacturing excavating tools for future robotic space exploration. Engineering Reports, 2020, 2, e12219.	1.7	13
5	Measuring Demisability of Bulk Metallic Glasses for Potential Satellite Applications through Ablation Experiments. Advanced Engineering Materials, 2020, 22, 2000708.	3.5	10
6	Deformation behavior of metallic glass composites and plasticity accommodation at microstructural length-scales. Materials Today Communications, 2020, 24, 101237.	1.9	6
7	Shear localization and its dependence on microstructural length scales in metallic glass composites. Materialia, 2020, 9, 100598.	2.7	7
8	Welding and additive manufacturing with nanoparticle-enhanced aluminum 7075 wire. Journal of Alloys and Compounds, 2020, 834, 154987.	5.5	77
9	Architected lattices with adaptive energy absorption. Extreme Mechanics Letters, 2019, 33, 100557.	4.1	52
10	Synthesis of Amorphous/Crystalline Laminated Metals via Accumulative Roll Bonding. Jom, 2019, 71, 585-592.	1.9	5
11	Glass forming ability, flexural strength, and wear properties of additively manufactured Zr-based bulk metallic glasses produced through laser powder bed fusion. Additive Manufacturing, 2018, 21, 312-317.	3.0	56
12	Galvanic Corrosion and Mechanical Behavior of Fiber Metal Laminates of Metallic Glass and Carbon Fiber Composites. Advanced Engineering Materials, 2018, 20, 1700711.	3.5	34
13	Enhanced mechanical properties of additively manufactured bulk metallic glasses produced through laser foil printing from continuous sheetmetal feedstock. Additive Manufacturing, 2018, 19, 95-103.	3.0	24
14	Developing Processing Parameters and Characterizing Microstructure and Properties of an Additively Manufactured FeCrMoBC Metallic Glass Forming Alloy. Advanced Engineering Materials, 2018, 20, 1800433.	3.5	23
15	Shape-morphing architected sheets with non-periodic cut patterns. Soft Matter, 2018, 14, 9744-9749.	2.7	72
16	Three-Dimensionally Printed, Shaped, Engineered Material Inhomogeneous Lens Antennas for Next-Generation Spaceborne Weather Radar Systems. IEEE Antennas and Wireless Propagation Letters, 2018, 17, 2080-2084.	4.0	18
17	An experimental investigation on the notch toughness of Cu-Zr-based bulk metallic glasses with in-situ crystallization. Journal of Non-Crystalline Solids, 2017, 469, 70-78.	3.1	14
18	Optimizing Bulk Metallic Glasses for Robust, Highly Wearâ€Resistant Gears. Advanced Engineering Materials, 2017, 19, 1600541.	3.5	54

#	Article	IF	Citations
19	Castable Bulk Metallic Glass Strain Wave Gears: Towards Decreasing the Cost of High-Performance Robotics. Scientific Reports, 2016, 6, 37773.	3.3	54
20	Effect of zirconium purity on the glass-forming-ability and notch toughness of Cu43Zr43Al7Be7. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 674, 397-405.	5.6	3
21	Functionally graded material of 304L stainless steel and inconel 625 fabricated by directed energy deposition: Characterization and thermodynamic modeling. Acta Materialia, 2016, 108, 46-54.	7.9	432
22	Hypervelocity Impact Testing of a Metallic Glassâ€Stuffed Whipple Shield. Advanced Engineering Materials, 2015, 17, 1313-1322.	3.5	34
23	Infrared thermal processing history of a Ti-based bulk metallic glass matrix composite manufactured via semi-solid forging. Acta Materialia, 2015, 95, 192-200.	7.9	12
24	Lowâ€Density Highâ€Strength Bulk Metallic Glasses and Their Composites: A Review. Advanced Engineering Materials, 2015, 17, 761-780.	3.5	68
25	Compositionally graded metals: A new frontier of additive manufacturing. Journal of Materials Research, 2014, 29, 1899-1910.	2.6	187
26	New Methods for Developing and Manufacturing Compliant Mechanisms Utilizing Bulk Metallic Glass. Advanced Engineering Materials, 2014, 16, 850-856.	3.5	30
27	Hypervelocity Impact Phenomenon in Bulk Metallic Glasses and Composites**. Advanced Engineering Materials, 2014, 16, 85-93.	3.5	29
28	Controlling the length scale and distribution of the ductile phase in metallic glass composites through friction stir processing. Science and Technology of Advanced Materials, 2014, 15, 035011.	6.1	8
29	Developing Gradient Metal Alloys through Radial Deposition Additive Manufacturing. Scientific Reports, 2014, 4, 5357.	3.3	222
30	Investigating Amorphous Metal Composite Architectures as Spacecraft Shielding. Advanced Engineering Materials, 2013, 15, 27-33.	3.5	37
31	Effect of cooling rate on the volume fraction of B2 phases in a CuZrAlCo metallic glass matrix composite. Intermetallics, 2013, 39, 89-93.	3.9	26
32	Study of Mushy-Zone Development in Dendritic Microstructures with Glass-Forming Eutectic Matrices Using Electrostatic Levitation. ISRN Materials Science, 2013, 2013, 1-7.	1.0	1
33	Back Cover Advanced Engineering Materials 1-2/2013. Advanced Engineering Materials, 2013, 15, 70-70.	3.5	0
34	A damage-tolerant glass. Nature Materials, 2011, 10, 123-128.	27.5	562
35	Beating Crystallization in Glass-Forming Metals by Millisecond Heating and Processing. Science, 2011, 332, 828-833.	12.6	201
36	Effect of processing on Charpy impact toughness of metallic glass matrix composites. Journal of Materials Research, 2011, 26, 1260-1268.	2.6	14

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37	Metallic-glass-matrix composite structures with benchmark mechanical performance. Applied Physics Letters, 2010, 97, .	3.3	16
38	Shape Memory Bulk Metallic Glass Composites. Science, 2010, 329, 1294-1295.	12.6	196
39	Glassy steel optimized for glass-forming ability and toughness. Applied Physics Letters, 2009, 95, .	3.3	49
40	Near-threshold fatigue crack growth in bulk metallic glass composites. Journal of Materials Research, 2009, 24, 3611-3619.	2.6	18
41	Semi-solid induction forging of metallic glass matrix composites. Jom, 2009, 61, 11-17.	1.9	40
42	Solution to the problem of the poor cyclic fatigue resistance of bulk metallic glasses. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 4986-4991.	7.1	84
43	Designing metallic glass matrix composites with high toughness and tensile ductility. Nature, 2008, 451, 1085-1089.	27.8	1,302
44	Development of tough, low-density titanium-based bulk metallic glass matrix composites with tensile ductility. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 20136-20140.	7.1	308
45	Thermal history analysis of friction stir processed and submerged friction stir processed aluminum. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2007, 465, 165-175.	5.6	53
46	Submerged friction stir processing (SFSP): An improved method for creating ultra-fine-grained bulk materials. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2005, 402, 234-241.	5.6	153