

Baran Sarac

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

65

papers

888

citations

14

h-index

27

g-index

77

ext. papers

1,163

ext. citations

6.4

avg, IF

4.53

L-index

#	Paper	IF	Citations
65	Designing tensile ductility in metallic glasses. <i>Nature Communications</i> , 2013 , 4, 2158	17.4	135
64	Structure-property relationships in nanoporous metallic glasses. <i>Acta Materialia</i> , 2016 , 106, 199-207	8.4	77
63	Honeycomb Structures of Bulk Metallic Glasses. <i>Advanced Functional Materials</i> , 2012 , 22, 3161-3169	15.6	66
62	. <i>Journal of Microelectromechanical Systems</i> , 2011 , 20, 28-36	2.5	63
61	Origin of large plasticity and multiscale effects in iron-based metallic glasses. <i>Nature Communications</i> , 2018 , 9, 1333	17.4	61
60	Rapid and partial crystallization to design ductile CuZr-based bulk metallic glass composites. <i>Materials and Design</i> , 2018 , 139, 132-140	8.1	36
59	Materials by design: An experimental and computational investigation on the microanatomy arrangement of porous metallic glasses. <i>Acta Materialia</i> , 2014 , 77, 411-422	8.4	32
58	From brittle to ductile: Density optimization for Zr-BMG cellular structures. <i>Scripta Materialia</i> , 2013 , 68, 921-924	5.6	22
57	Evaluation of hydrogen storage performance of ZrTiVNiCrFe in electrochemical and gas-solid reactions. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 5347-5355	6.7	22
56	Cooperative deformation behavior between the shear band and boundary sliding of an Al-based nanostructure-dendrite composite. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2018 , 735, 81-88	5.3	19
55	Electrosorption of Hydrogen in Pd-Based Metallic Glass Nanofilms. <i>ACS Applied Energy Materials</i> , 2018 , 1, 2630-2646	6.1	19
54	Micro-patterning by thermoplastic forming of Ni-free Ti-based bulk metallic glasses. <i>Materials and Design</i> , 2017 , 120, 204-211	8.1	17
53	Electrocatalytic Behavior of Hydrogenated Pd-Metallic Glass Nanofilms: Butler-Volmer, Tafel, and Impedance Analyses. <i>Electrocatalysis</i> , 2020 , 11, 94-109	2.7	17
52	Atomic origin for rejuvenation of a Zr-based metallic glass at cryogenic temperature. <i>Journal of Alloys and Compounds</i> , 2017 , 718, 254-259	5.7	16
51	Hierarchical surface patterning of Ni- and Be-free Ti- and Zr-based bulk metallic glasses by thermoplastic net-shaping. <i>Materials Science and Engineering C</i> , 2017 , 73, 398-405	8.3	14
50	Hydrogen storage performance of the multi-principal-component CoFeMnTiVZr alloy in electrochemical and gas-solid reactions.. <i>RSC Advances</i> , 2020 , 10, 24613-24623	3.7	14
49	Towards the Better: Intrinsic Property Amelioration in Bulk Metallic Glasses. <i>Scientific Reports</i> , 2016 , 6, 27271	4.9	14

48	Property optimization of porous metallic glasses via structural design. <i>Materials Letters</i> , 2014 , 134, 306-310	3.10	14
47	Activation volume and energy of bulk metallic glasses determined by nanoindentation. <i>Materials and Design</i> , 2018 , 155, 116-124	8.1	14
46	Structural, elastic and electronic properties of CoZr in B2 and B33 structures under high pressure. <i>Journal of Alloys and Compounds</i> , 2017 , 705, 445-455	5.7	13
45	Structural modifications in sub-T _g annealed CuZr-based metallic glass. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017 , 707, 245-252	5.3	13
44	Mechanical and Structural Investigation of Porous Bulk Metallic Glasses. <i>Metals</i> , 2015 , 5, 920-933	2.3	12
43	Ultrahigh hydrogen-sorbing palladium metallic-glass nanostructures. <i>Materials Horizons</i> , 2019 , 6, 1481-1487	4.74	11
42	Micropatterning kinetics of different glass-forming systems investigated by thermoplastic net-shaping. <i>Scripta Materialia</i> , 2017 , 137, 127-131	5.6	10
41	Tuning the glass forming ability and mechanical properties of Ti-based bulk metallic glasses by Ga additions. <i>Journal of Alloys and Compounds</i> , 2019 , 793, 552-563	5.7	10
40	Dual self-organised shear banding behaviours and enhanced ductility in phase separating Zr-based bulk metallic glasses. <i>Philosophical Magazine</i> , 2018 , 98, 1744-1764	1.6	10
39	Effective electrocatalytic methanol oxidation of Pd-based metallic glass nanofilms. <i>Nanoscale</i> , 2020 , 12, 22586-22595	7.7	10
38	Annealing-assisted high-pressure torsion in Zr ₅₅ Cu ₃₀ Al ₁₀ Ni ₅ metallic glass. <i>Journal of Alloys and Compounds</i> , 2019 , 784, 1323-1333	5.7	10
37	Hardening of shear band in metallic glass. <i>Scientific Reports</i> , 2017 , 7, 7076	4.9	9
36	Interfacial structure and wear properties of selective laser melted Ti/(TiC+TiN) composites with high content of reinforcements. <i>Journal of Alloys and Compounds</i> , 2021 , 870, 159436	5.7	9
35	Metallic Glass Films with Nanostructured Periodic Density Fluctuations Supported on Si/SiO ₂ as an Efficient Hydrogen Sorber. <i>Chemistry - A European Journal</i> , 2020 , 26, 8244-8253	4.8	8
34	Stability of shear banding process in bulk metallic glasses and composites. <i>Journal of Materials Research</i> , 2017 , 32, 2560-2569	2.5	8
33	Thermally-triggered Dual In-situ Self-healing Metallic Materials. <i>Scientific Reports</i> , 2018 , 8, 2120	4.9	7
32	Elastostatic reversibility in thermally formed bulk metallic glasses: nanobeam diffraction fluctuation electron microscopy. <i>Nanoscale</i> , 2018 , 10, 1081-1089	7.7	7
31	Oligoether Ester-Functionalized ProDOT Copolymers on Si/Monolayer Graphene as Capacitive Thin Film Electrodes. <i>Journal of the Electrochemical Society</i> , 2020 , 167, 070543	3.9	6

30	Designing a multifunctional Ti-2Cu-4Ca porous biomaterial with favorable mechanical properties and high bioactivity. <i>Journal of Alloys and Compounds</i> , 2017 , 727, 338-345	5.7	6
29	Polymorphic Transformation and Magnetic Properties of Rapidly Solidified FeCoNiSiB High-Entropy Alloys. <i>Materials</i> , 2019 , 12,	3.5	6
28	Fabrication of Metastable Crystalline Nanocomposites by Flash Annealing of CuZrAl Metallic Glass Using Joule Heating. <i>Nanomaterials</i> , 2020 , 10,	5.4	5
27	Mg-Based Metallic Glass-Polymer Composites: Investigation of Structure, Thermal Properties, and Biocompatibility. <i>Metals</i> , 2020 , 10, 867	2.3	5
26	Surface-governed electrochemical hydrogenation in FeNi-based metallic glass. <i>Journal of Power Sources</i> , 2020 , 475, 228700	8.9	4
25	Effects of Ni and Co alloying on thermal, magnetic and structural properties of Fe-(Ni,Co)-P-C metallic glass ribbons. <i>Journal of Alloys and Compounds</i> , 2021 , 872, 159620	5.7	4
24	Microstructures, Martensitic Transformation, and Mechanical Behavior of Rapidly Solidified Ti-Ni-Hf and Ti-Ni-Si Shape Memory Alloys. <i>Journal of Materials Engineering and Performance</i> , 2018 , 27, 1005-1015	1.6	3
23	Structure-dynamics relationships in cryogenically deformed bulk metallic glass.. <i>Nature Communications</i> , 2022 , 13, 127	17.4	3
22	Influence of combinatorial annealing and plastic deformation treatments on the intrinsic properties of Cu ₄₆ Zr ₄₆ Al ₈ bulk metallic glass. <i>Intermetallics</i> , 2020 , 127, 106986	3.5	3
21	Effect of high pressure torsion on crystallization and magnetic properties of Fe _{73.9} Cu ₁ Nb ₃ Si _{15.5} B _{6.6} . <i>Journal of Magnetism and Magnetic Materials</i> , 2021 , 525, 167679	2.8	3
20	Functionalized highly electron-rich redox-active electropolymerized 3,4-propylenedioxythiophenes as precursors and targets for bioelectronics and supercapacitors. <i>Molecular Systems Design and Engineering</i> , 2021 , 6, 214-233	4.6	3
19	Microfabrication: Honeycomb Structures of Bulk Metallic Glasses (Adv. Funct. Mater. 15/2012). <i>Advanced Functional Materials</i> , 2012 , 22, 3160-3160	15.6	2
18	Thermomechanical and structural characterization of polybutadiene/poly(ethylene oxide)/ CNT stretchable electrospun fibrous membranes. <i>Polymers for Advanced Technologies</i> , 2021 , 32, 248-261	3.2	2
17	X-ray Diffraction Computed Nanotomography Applied to Solve the Structure of Hierarchically Phase-Separated Metallic Glass. <i>ACS Nano</i> , 2021 , 15, 2386-2398	16.7	2
16	Nanoporous PdCuBi Amorphous Thin Films for Electrochemical Hydrogen Storage and Sensing. <i>ACS Applied Energy Materials</i> , 2021 , 4, 2672-2680	6.1	2
15	Enhancement of Interfacial Hydrogen Interactions with Nanoporous Gold-Containing Metallic Glass. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 42613-42623	9.5	2
14	Effect of nanoparticles on morphology and size of primary silicon and property of selective laser melted Al-high Si content alloys. <i>Vacuum</i> , 2021 , 191, 110405	3.7	2
13	Stability, elasticity and electronic structures of Co-Zr binary intermetallic compounds. <i>Philosophical Magazine</i> , 2020 , 100, 874-893	1.6	1

12	Origin of Electrocatalytic Activity in Amorphous Nickel-Metalloid Electrodeposits. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 23689-23701	9.5	1
11	Cryo-Casting for Controlled Decomposition of CuZrAl Bulk Metallic Glass into Nanomaterials: Implications for Design Optimization. <i>ACS Applied Nano Materials</i> , 2021 , 4, 7771-7780	5.6	1
10	Multilayer crystal-amorphous Pd-based nanosheets on Si/SiO ₂ with interface-controlled ion transport for efficient hydrogen storage. <i>International Journal of Hydrogen Energy</i> , 2022 , 47, 6777-6788	6.7	0
9	Transition metal-based high entropy alloy microfiber electrodes: Corrosion behavior and hydrogen activity. <i>Corrosion Science</i> , 2021 , 193, 109880	6.8	0
8	Deformation-Mode-Sensitive Behavior of CuZr-Based Bulk Metallic Glasses Under Dynamic Loading. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2021 , 52, 8-13	2.3	0
7	Electrospun polyacrylonitrile/2-(acryloyloxy)ethyl ferrocenecarboxylate polymer blend nanofibers. <i>Molecular Systems Design and Engineering</i> , 2021 , 6, 476-492	4.6	0
6	Effective Methanol Oxidation with Platinum Nanoparticles-Decorated Poly(2-bromomethyl-2-methyl-3,4-propylenedioxythiophene)-Coated Glassy Carbon Electrode. <i>Journal of the Electrochemical Society</i> , 2021 , 168, 086503	3.9	0
5	Porosity and thickness effect of PdCuBi metallic glasses on electrocatalytic hydrogen production and storage. <i>Materials and Design</i> , 2021 , 210, 110099	8.1	0
4	Thermoplasticity of metallic glasses: Processing and applications. <i>Progress in Materials Science</i> , 2022 , 127, 100941	42.2	0
3	Fabrication Methods of Artificial Microstructures. <i>Springer Theses</i> , 2015 , 17-28	0.1	
2	General Conclusions and Outlook. <i>Springer Theses</i> , 2015 , 81-88	0.1	
1	Artificial Microstructure Approach. <i>Springer Theses</i> , 2015 , 37-80	0.1	