Thermomechanical processing of metallic glasses: exter

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Citation Report

#	Article	IF	Citations
1	Flow-induced elastic anisotropy of metallic glasses. Acta Materialia, 2016, 112, 132-140.	3.8	30
2	The yielding transition in amorphous solids under oscillatory shear deformation. Nature Communications, 2017, 8, 14653.	5.8	144
3	Composition dependence of mechanically-induced structural rejuvenation in Zr-Cu-Al-Ni metallic glasses. Journal of Alloys and Compounds, 2017, 712, 250-255.	2.8	17
4	High stored energy of metallic glasses induced by high pressure. Applied Physics Letters, 2017, 110, .	1.5	40
5	Collective nonaffine displacements in amorphous materials during large-amplitude oscillatory shear. Physical Review E, 2017, 95, 023002.	0.8	41
6	Favored local structures in amorphous colloidal packings measured by microbeam X-ray diffraction. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 10344-10349.	3.3	16
7	Modulation of plastic flow in metallic glasses via nanoscale networks of chemical heterogeneities. Acta Materialia, 2017, 140, 116-129.	3.8	21
8	Linking macroscopic rejuvenation to nano-elastic fluctuations in a metallic glass. Acta Materialia, 2017, 138, 111-118.	3.8	76
9	Cold rolling improves the fracture toughness of a Zr-based bulk metallic glass. Journal of Alloys and Compounds, 2017, 694, 1109-1120.	2.8	23
10	On cryothermal cycling as a method for inducing structural changes in metallic glasses. NPG Asia Materials, 2018, 10, 137-145.	3.8	68
11	Tensile properties of Zr70Ni16Cu6Al8 BMG at room and cryogenic temperatures. Journal of Alloys and Compounds, 2018, 742, 952-957.	2.8	7
12	Mechanical rejuvenation in bulk metallic glass induced by thermo-mechanical creep. Acta Materialia, 2018, 148, 384-390.	3.8	61
13	Study of medium range reordering by plastic deformation in Cu46Zr46Al8. Journal of Alloys and Compounds, 2018, 744, 34-40.	2.8	0
14	Extreme rejuvenation and softening in a bulk metallic glass. Nature Communications, 2018, 9, 560.	5.8	186
15	Novel deformation-induced polymorphic crystallization and softening of Al-based amorphous alloys. Acta Materialia, 2018, 147, 90-99.	3.8	35
16	The yielding transition in periodically sheared binary glasses at finite temperature. Computational Materials Science, 2018, 150, 162-168.	1.4	31
17	Micro-plasticity and recent insights from intermittent and small-scale plasticity. Acta Materialia, 2018, 143, 338-363.	3.8	119
18	Fast secondary relaxation and plasticity initiation in metallic glasses. National Science Review, 2018, 5, 616-618.	4.6	23

#	Article	IF	Citations
19	Exceptionally high nanoscale wear resistance of a Cu47Zr45Al8 metallic glass with native and artificially grown oxide. Intermetallics, 2018, 93, 312-317.	1.8	31
20	Compression-Induced Polycrystal-Glass Transition in Binary Crystals. Physical Review X, 2018, 8, .	2.8	11
21	Optimizing physical aging in poly(ethylene terephthalate)-glycol (PETG). Journal of Non-Crystalline Solids, 2018, 502, 15-21.	1.5	21
22	Fundamental Link between Î² Relaxation, Excess Wings, and Cage-Breaking in Metallic Glasses. Journal of Physical Chemistry Letters, 2018, 9, 5877-5883.	2.1	44
23	Energy Storage in Metallic Glasses via Flash Annealing. Advanced Functional Materials, 2018, 28, 1805385.	7.8	34
24	Shear-band affected zone revealed by magnetic domains in a ferromagnetic metallic glass. Nature Communications, 2018, 9, 4414.	5.8	62
25	Making glassy solids ductile at room temperature by imparting flexibility into their amorphous structure. Materials Research Letters, 2018, 6, 570-583.	4.1	17
26	Elastic Fluctuations and Structural Heterogeneities in Metallic Glasses. Advanced Functional Materials, 2018, 28, 1800388.	7.8	48
27	Rejuvenation of a Metallic and Oxide Glass by Cooling from the Supercooled Liquid State at Laboratory Rates. Physica Status Solidi - Rapid Research Letters, 2018, 12, 1800167.	1.2	2
28	Femtosecond laser rejuvenation of nanocrystalline metals. Acta Materialia, 2018, 156, 183-195.	3.8	14
29	Correlation Between Plasticity and Atomic Structure Evolution of a Rejuvenated Bulk Metallic Glass. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2019, 50, 4743-4749.	1.1	25
30	Toughness enhancement and heterogeneous softening of a cryogenically cycled Zrâ€“Cuâ€“Niâ€“Alâ€“Nb bulk metallic glass. Acta Materialia, 2019, 176, 278-288.	3.8	62
31	Energy state and properties controlling of metallic glasses by surface rejuvenation. Intermetallics, 2019, 112, 106549.	1.8	3
32	Accelerated relaxation in disordered solids under cyclic loading with alternating shear orientation. Journal of Non-Crystalline Solids, 2019, 525, 119683.	1.5	20
33	Ultrafast extreme rejuvenation of metallic glasses by shock compression. Science Advances, 2019, 5, eaaw6249.	4.7	66
34	Extra rejuvenation of Zr55Cu30Al10Ni5 bulk metallic glass using elastostatic loading and cryothermal treatment interaction. Journal of Non-Crystalline Solids, 2019, 506, 39-45.	1.5	34
35	Dynamic relaxations and relaxation-property relationships in metallic glasses. Progress in Materials Science, 2019, 106, 100561.	16.0	257
36	Prominent role of chemical heterogeneity on cryogenic rejuvenation and thermomechanical properties of Laâ€“Alâ€“Ni metallic glass. Intermetallics, 2019, 111, 106497.	1.8	40

#	Article	IF	Citations
37	Aging and rejuvenation during elastostatic loading of amorphous alloys: A molecular dynamics simulation study. Computational Materials Science, 2019, 168, 125-130.	1.4	25
38	Heterogeneous structural changes correlated to local atomic order in thermal rejuvenation process of Cu-Zr metallic glass. Science and Technology of Advanced Materials, 2019, 20, 632-642.	2.8	40
39	Fast-heating-induced formation of metallic-glass/crystal composites with enhanced plasticity. Thermochimica Acta, 2019, 677, 198-205.	1.2	22
40	Understanding Glass through Differential Scanning Calorimetry. Chemical Reviews, 2019, 119, 7848-7939.	23.0	258
41	Atomistic modeling of heat treatment processes for tuning the mechanical properties of disordered solids. Journal of Non-Crystalline Solids, 2019, 518, 128-133.	1.5	18
42	Intermediate structural state for maximizing the rejuvenation effect in metallic glass via thermo-cycling treatment. Journal of Alloys and Compounds, 2019, 795, 493-500.	2.8	34
43	Modulating heterogeneity and plasticity in bulk metallic glasses: Role of interfaces on shear banding. International Journal of Plasticity, 2019, 119, 156-170.	4.1	88
44	Functional Applications of Metallic Glasses in Electrocatalysis. ChemCatChem, 2019, 11, 2401-2414.	1.8	51
45	Nanocalorimetry: Door opened for in situ material characterization under extreme non-equilibrium conditions. Progress in Materials Science, 2019, 104, 53-137.	16.0	44
46	Attractive In Situ Selfâ€Reconstructed Hierarchical Gradient Structure of Metallic Glass for High Efficiency and Remarkable Stability in Catalytic Performance. Advanced Functional Materials, 2019, 29, 1807857.	7.8	74
47	Stress breaks universal aging behavior in a metallic glass. Nature Communications, 2019, 10, 5006.	5.8	28
48	Structural relaxation of nanocrystalline PdAu alloy: Probing the spectrum of potential barriers. Journal of Applied Physics, 2019, 126, .	1.1	3
49	Main Î± relaxation and slow Î² relaxation processes in a La30Ce30Al15Co25 metallic glass. Journal of Materials Science and Technology, 2019, 35, 982-986.	5.6	31
50	Static and cyclic mechanical behaviours and fracture mechanisms of Zr-based metallic glass at elevated temperatures. Philosophical Magazine, 2019, 99, 835-852.	0.7	11
51	Rejuvenated metallic glass strips produced via twin-roll casting. Journal of Materials Science and Technology, 2020, 38, 73-79.	5.6	26
52	Relating fracture toughness to micro-pillar compression response for a laser powder bed additive manufactured bulk metallic glass. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 770, 138535.	2.6	48
53	Revealing hidden supercooled liquid states in Al-based metallic glasses by ultrafast scanning calorimetry: Approaching theoretical ceiling of liquid fragility. Science China Materials, 2020, 63, 157-164.	3.5	6
54	Consolidation of the Amorphous Zr₅₀Cu₅₀ Ribbons by Highâ€Pressure Torsion. Advanced Engineering Materials, 2020, 22, 1900694.	1.6	6

#	Article	IF	Citations
55	Rejuvenation in Hot-Drawn Micrometer Metallic Glassy Wires. Chinese Physics Letters, 2020, 37, 017103.	1.3	12
56	The effect of thermal history on the atomic structure and mechanical properties of amorphous alloys. Computational Materials Science, 2020, 174, 109477.	1.4	13
57	Emergent structural length scales in a model binary glass - The micro-second molecular dynamics time-scale regime. Journal of Alloys and Compounds, 2020, 821, 153209.	2.8	22
58	Lowâ€iridiumâ€Content IrNiTa Metallic Glass Films as Intrinsically Active Catalysts for Hydrogen Evolution Reaction. Advanced Materials, 2020, 32, e1906384.	11.1	79
59	Inherent relation between atomic-level stresses and nanoscale heterogeneity in Zr-based bulk metallic glass under a rejuvenation process. Physica B: Condensed Matter, 2020, 595, 412390.	1.3	17
60	Zr55Cu30Al10Ni5 amorphous alloy sheets with large plasticity fabricated by twin-roll strip casting. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 794, 139904.	2.6	6
61	Improved alkaline hydrogen evolution performance of a Fe78Si9B13 metallic glass electrocatalyst by ultrasonic vibrations. Intermetallics, 2020, 125, 106820.	1.8	12
62	Mechanical behavior of metallic glasses with pressure-promoted thermal rejuvenation. Journal of Alloys and Compounds, 2020, 848, 156597.	2.8	16
63	The rejuvenation and relaxation around the glass transition of a Ce-based metallic glass controlled by annealing, quenching and cryogenic treatments. Journal of Non-Crystalline Solids, 2020, 548, 120334.	1.5	4
64	Relaxation-to-rejuvenation transition of a Ce-based metallic glass by quenching/cryogenic treatment performed at sub-Tg. Journal of Alloys and Compounds, 2020, 825, 153997.	2.8	12
65	Stimulation of shear-transformation zones in metallic glasses by cryogenic thermal cycling. Journal of Non-Crystalline Solids, 2020, 548, 120299.	1.5	17
66	A delayed yielding transition in mechanically annealed binary glasses at finite temperature. Journal of Non-Crystalline Solids, 2020, 548, 120324.	1.5	8
67	Alternating Shear Orientation During Cyclic Loading Facilitates Yielding in Amorphous Materials. Journal of Materials Engineering and Performance, 2020, 29, 7328-7335.	1.2	11
68	Deformation map of metallic glass: Normal stress effect. Science China Materials, 2020, 63, 2620-2626.	3.5	2
69	Ultrasonic plasticity of metallic glass near room temperature. Applied Materials Today, 2020, 21, 100866.	2.3	15
70	Structural insights into metal-metalloid glasses from mass spectrometry. Scientific Reports, 2020, 10, 17467.	1.6	0
71	Nonmonotonous atomic motions in metallic glasses. Physical Review B, 2020, 102, .	1.1	10
72	Microscopic origin of shear banding as a localized driven glass transition in compressed colloidal pillars. Physical Review E, 2020, 102, 032605.	0.8	1

#	Article	IF	Citations
73	Strain, stress and stress relaxation in oxidized ZrCuAl-based bulk metallic glass. Acta Materialia, 2020, 200, 674-685.	3.8	8
74	Effect of the Free Volume on the Electronic Structure of Cu70Zr30 Metallic Glasses. Materials, 2020, 13, 4911.	1.3	2
75	Uniformity of the glassy state of iron-based metallic glassy particles and reproducibility of fabricating microparts. Materials and Design, 2020, 191, 108667.	3.3	3
76	Scaling of relaxation and excess entropy in plastically deformed amorphous solids. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 11887-11893.	3.3	14
77	Breakdown of One-to-One Correspondence in Energy and Volume in a High-Pressure Heat-Treated Zr-Based Metallic Glass During Annealing. Scientific Reports, 2020, 10, 7438.	1.6	2
78	Glass Stability Changes the Nature of Yielding under Oscillatory Shear. Physical Review Letters, 2020, 124, 225502.	2.9	60
79	Structural relaxation in amorphous materials under cyclic tension-compression loading. Journal of Non-Crystalline Solids, 2020, 540, 120098.	1.5	11
80	Rejuvenation through plastic deformation of a La-based metallic glass measured by fast-scanning calorimetry. Journal of Non-Crystalline Solids: X, 2020, 8, 100051.	0.5	6
81	Thermal rejuvenation of tellurite glasses by cooling from the supercooled liquid state at low rates. Scripta Materialia, 2020, 186, 39-42.	2.6	4
82	Rejuvenation and shear banding in model amorphous solids. Physical Review E, 2020, 101, 033001.	0.8	39
83	Structural relaxation of nanocrystalline PdAu alloy: Mapping pathways through the potential energy landscape. Journal of Applied Physics, 2020, 127, 125115.	1.1	2
84	Elastic Moduli of Nanoglasses and Melt-Spun Metallic Glasses by Ultrasonic Time-of-Flight Measurements. Transactions of the Indian Institute of Metals, 2020, 73, 1363-1371.	0.7	5
85	Structural dynamics and rejuvenation during cryogenic cycling in a Zr-based metallic glass. Acta Materialia, 2020, 196, 723-732.	3.8	38
86	Shadow glass transition as a thermodynamic signature of Î² relaxation in hyper-quenched metallic glasses. National Science Review, 2020, 7, 1896-1905.	4.6	58
87	Strain-hardening and suppression of shear-banding in rejuvenated bulk metallic glass. Nature, 2020, 578, 559-562.	13.7	203
88	Energy storage oscillation of metallic glass induced by high-intensity elastic stimulation. Applied Physics Letters, 2020, 116, .	1.5	13
89	3D pore structure characterization and hardness in a powder bed fusion-processed fully amorphous Zr-based bulk metallic glass. Materials Characterization, 2020, 162, 110178.	1.9	28
90	Two-way tuning of structural order in metallic glasses. Nature Communications, 2020, 11, 314.	5.8	29

#	Article	IF	Citations
91	Unified phase diagram of reversibleâ€“irreversible, jamming, and yielding transitions in cyclically sheared soft-sphere packings. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 10203-10209.	3.3	34
92	Structural heterogeneity originated plasticity in Zrâ€“Cuâ€“Al bulk metallic glasses. Intermetallics, 2020, 121, 106790.	1.8	22
93	Plastic deformation of a Zr-based bulk metallic glass fabricated by selective laser melting. Journal of Materials Science and Technology, 2021, 60, 139-146.	5.6	36
94	Discovery of novel quaternary bulk metallic glasses using a developed correlation-based neural network approach. Computational Materials Science, 2021, 186, 110025.	1.4	34
95	Accelerated rejuvenation in metallic glasses subjected to elastostatic compression along alternating directions. Journal of Non-Crystalline Solids, 2021, 556, 120562.	1.5	12
96	Ultrastability of metallic supercooled liquid induced by vibration. Scripta Materialia, 2021, 194, 113606.	2.6	10
97	Rejuvenation of granulated blast furnace slag (GBS) glass by ball milling. Journal of Non-Crystalline Solids, 2021, 556, 120557.	1.5	5
98	Enhancing ductility in bulk metallic glasses by straining during cooling. Communications Materials, 2021, 2, .	2.9	16
99	Evolution of Shear Bands in the Structure of a Zirconium-Based Amorphous Alloy during Rolling at Different Temperatures. Physics of Metals and Metallography, 2021, 122, 121-126.	0.3	1
100	Cryogenic cycling-induced changes in a Fe-based bulk metallic glass on the nanoscale surface layer. Materials Letters, 2021, 285, 129114.	1.3	1
101	Rejuvenation of a naturally aged bulk metallic glass by elastostatic loading. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 806, 140843.	2.6	12
102	Ultrafine shape memory alloys synthesized using a metastable metallic glass precursor with polymorphic crystallization. Applied Materials Today, 2021, 22, 100961.	2.3	3
103	Relaxation dynamics of Pdâ€“Niâ€“P metallic glass: decoupling of anelastic and viscous processes. Journal of Physics Condensed Matter, 2021, 33, 164004.	0.7	10
104	Tuning Glass Formation and Mechanical Properties of ZrCoAl(Nb) Bulk Metallic Glass with Nb Microalloying Process. Transactions of the Indian Institute of Metals, 2021, 74, 1603.	0.7	2
105	Microstructure and mechanical properties of Zr55Cu30Al10Ni5 amorphous alloy with high-energy states produced by strip casting. Journal of Alloys and Compounds, 2021, 861, 158542.	2.8	10
106	Unusually thick shear-softening surface of micrometer-size metallic glasses. Innovation(China), 2021, 2, 100106.	5.2	7
107	Micro-plasticity in a fragile model binary glass. Acta Materialia, 2021, 209, 116771.	3.8	16
108	Accessing a broader range of energy states in metallic glasses by variable-amplitude oscillatory shear. Journal of Non-Crystalline Solids, 2021, 560, 120746.	1.5	9

#	Article	IF	Citations
109	In situ correlation between metastable phase-transformation mechanism and kinetics in a metallic glass. Nature Communications, 2021, 12, 2839.	5.8	25
110	Intrinsic relaxation in a supercooled ZrTiNiCuBe glass forming liquid. Physical Review Materials, 2021, 5, .	0.9	7
111	Metallic Nanoglasses with Promoted Î²-Relaxation and Tensile Plasticity. Nano Letters, 2021, 21, 6051-6056.	4.5	25
112	Atomistic modelling of thermal-cycling rejuvenation in metallic glasses. Acta Materialia, 2021, 213, 116952.	3.8	32
113	3D printing of bulk metallic glasses. Materials Science and Engineering Reports, 2021, 145, 100625.	14.8	88
114	Reprint of: Nanocalorimetry: Door opened for in situ material characterization under extreme non-equilibrium conditions. Progress in Materials Science, 2021, 120, 100819.	16.0	1
115	Shear band healing in amorphous materials by small-amplitude oscillatory shear deformation. Journal of Non-Crystalline Solids, 2021, 566, 120874.	1.5	4
116	Interaction between parallel shear bands in a metallic glass. Journal of Non-Crystalline Solids, 2021, 566, 120882.	1.5	14
117	Inverse design of glass structure with deep graph neural networks. Nature Communications, 2021, 12, 5359.	5.8	19
118	Reduced strain rate sensitivity by structural rejuvenation in metallic glass under nanoindentation. Materials Letters, 2021, 298, 130037.	1.3	4
119	Advanced catalyst for hydrogen evolution reaction by dealloying Al-based nanocrystalline alloys. Journal of Alloys and Compounds, 2021, 880, 160548.	2.8	17
120	Modeling of glass transition process and elastic properties of Zr-Nb amorphous alloys. Journal of Non-Crystalline Solids, 2021, 571, 121052.	1.5	2
121	Characteristic of dynamic mechanical relaxation processes in Cu46Zr46Al8 and La43.4Ce18.6Ni24Al14 metallic glasses. Journal of Alloys and Compounds, 2021, 887, 161392.	2.8	2
122	Yielding transition in stable glasses periodically deformed at finite temperature. Computational Materials Science, 2021, 200, 110831.	1.4	5
123	Short- to long-term deformation behavior, failure, and service life of amorphous polymers under cyclic torsional and multiaxial loadings. International Journal of Plasticity, 2021, 147, 103106.	4.1	9
124	Enhanced dye degradation capability and reusability of Fe-based amorphous ribbons by surface activation. Journal of Materials Science and Technology, 2020, 53, 163-173.	5.6	25
125	Correlated disorder in a model binary glass through a local SU(2) bonding topology. Physical Review Materials, 2020, 4, .	0.9	8
126	Cooling under Applied Stress Rejuvenates Amorphous Alloys and Enhances Their Ductility. Metals, 2021, 11, 67.	1.0	6

#	Article	IF	Citations
127	Enhanced heterogeneity and plasticity in a Zr - Cu â€“ Al bulk metallic glass with micro-addition of oxygen. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 831, 142222.	2.6	18
128	Phase Transformations from Nanocrystalline to Amorphous (Zr70Ni25Al5)100-xWx (x; 0, 2, 10, 20, 35 at.) Tj ETQq1 1 0.784314 rgBT /C	1.9	3
129	Glass formation in binary alloys with different atomic symmetries. Physical Review Materials, 2020, 4, .	0.9	5
130	The Molecular dynamics simulations of the mechanical behavior of nanostructured and amorphous Al80Ti15Ni5 alloy. Revista Facultad De IngenierÃa, 0, , .	0.5	2
132	A new strategy to strength-toughen metals: Tailoring disorder. Theoretical and Applied Mechanics Letters, 2021, 11, 100310.	1.3	2
133	Wettability and Interfacial Reactions Between Metallic Glass Melts and Cu/Mo Used as Roller Materials for Twin-Roll Casting. Acta Metallurgica Sinica (English Letters), 2022, 35, 1221-1230.	1.5	2
134	Substantially enhanced plasticity of bulk metallic glasses by densifying local atomic packing. Nature Communications, 2021, 12, 6582.	5.8	51
135	Structural evolution under elastic cyclic loading in a Ti-based metallic glass. Journal of Non-Crystalline Solids, 2022, 577, 121263.	1.5	3
136	Cycle deformation enabled controllable mechanical polarity of bulk metallic glasses. Acta Materialia, 2022, 225, 117557.	3.8	4
137	Fast increase in ductility and strength of Zr-based bulk amorphous alloys induced by intermittent high-frequency vibration loading. Intermetallics, 2022, 142, 107467.	1.8	1
138	Local structure order around Ni in Hfâ€'Cuâ€'Ni glassy ribbons: XANES and EXAFS study at Ni Kâ€'edge. Physica B: Condensed Matter, 2022, 630, 413687.	1.3	1
139	Strain-hardening under uniaxial tension in a rejuvenated bulk metallic glass. Scripta Materialia, 2022, 212, 114572.	2.6	5
140	Relaxation and Strain-Hardening Relationships in Highly Rejuvenated Metallic Glasses. Materials, 2022, 15, 1702.	1.3	5
141	Recent development of chemically complex metallic glasses: from accelerated compositional design, additive manufacturing to novel applications. Materials Futures, 2022, 1, 012001.	3.1	18
142	A Free-Volume Model for Thermal Expansion of Metallic Glass. Chinese Physics Letters, 2022, 39, 036401.	1.3	4
143	Toughening 3D-printed Zr-based bulk metallic glass via synergistic defects engineering. Materials Research Letters, 2022, 10, 377-384.	4.1	11
144	High Mixing Entropy Enhanced Energy States in Metallic Glasses. Chinese Physics Letters, 2022, 39, 046401.	1.3	5
145	Atomistic study on simultaneous achievement of partial crystallization and rejuvenated glassy structure in thermal process of metallic glasses. Philosophical Magazine, 2022, 102, 1209-1230.	0.7	6

#	Article	IF	Citations
146	Stress-induced gradient rejuvenation framework and memory effect in a metallic glass. Scripta Materialia, 2022, 213, 114636.	2.6	7
147	Temperature-dependence of impact toughness of bulk metallic glass composites containing phase transformable Î²-Ti crystals. Acta Materialia, 2022, 229, 117827.	3.8	14
148	Effects of cryogenic thermal cycling on a La-based metallic glass: Relaxation or rejuvenation?. Journal of Alloys and Compounds, 2022, 909, 164741.	2.8	3
149	Viscosity and transport in a model fragile metallic glass. Physical Review Materials, 2021, 5, .	0.9	4
150	Effective Energy Density of Glass Rejuvenation. Acta Mechanica Solida Sinica, 2022, 35, 746-754.	1.0	5
151	The effect of Ni or Co additions on the structure of Zr60Cu30Al10 bulk metallic glass revealed by high-energy synchrotron radiation. Materials Today Communications, 2022, , 103531.	0.9	1
152	Nanostructured Metallic Glass in a Highly Upgraded Energy State Contributing to Efficient Catalytic Performance. Advanced Materials, 2022, 34, e2200850.	11.1	34
153	In situ study on medium-range order evolution during the polyamorphous phase transition in a Pd-Ni-P nanostructured glass. Journal of Materials Science and Technology, 2022, 125, 145-156.	5.6	9
154	Unraveling the microstructural heterogeneity and plasticity of Zr50Cu40Al10 bulk metallic glass by nanoindentation. International Journal of Plasticity, 2022, 154, 103305.	4.1	26
155	Deformation-induced medium-range order changes in bulk metallic glasses. Physical Review Materials, 2022, 6, .	0.9	4
156	Unraveling the threshold stress of structural rejuvenation of metallic glasses via thermo-mechanical creep. Science China: Physics, Mechanics and Astronomy, 2022, 65, .	2.0	12
157	Nanostructure evolution, thermal stability and hardness of amorphous Alâ€“Cu-Y (Co, La) (at.%) alloys. Journal of Non-Crystalline Solids, 2022, 589, 121663.	1.5	5
158	The effect of pressure-promoted thermal rejuvenation on the fracture energy of metallic glasses. Journal of Non-Crystalline Solids, 2022, 590, 121674.	1.5	6
159	Rejuvenation by triaxial compression in a brittle La-based bulk metallic glass. Materials Letters, 2022, 320, 132336.	1.3	1
160	Mechanical annealing and yielding transition in cyclically sheared binary glasses. Journal of Non-Crystalline Solids, 2022, 590, 121697.	1.5	5
161	Severe deformation-induced microstructural heterogeneities in Cu₆₄Zr₃₆ metallic glass. Modelling and Simulation in Materials Science and Engineering, 2022, 30, 065005.	0.8	4
162	Evolution path of metallic glasses under extensive cryogenic thermal cycling: Rejuvenation or relaxation?. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 850, 143551.	2.6	5
163	Synthesis, and characterization of metallic glassy Cuâ€“Zrâ€“Ni powders decorated with big cube Zr2Ni nanoparticles for potential antibiofilm coating applications. Scientific Reports, 2022, 12, .	1.6	1

#	Article	IF	Citations
164	Achieving structural rejuvenation in metallic glass by modulating Î² relaxation intensity via easy-to-operate mechanical cycling. International Journal of Plasticity, 2022, 157, 103402.	4.1	32
165	Extreme rejuvenation and superior stability in a metallic glass. Materials Today Physics, 2022, 27, 100782.	2.9	4
166	Significant rejuvenation of a deformed metallic glass contributed by shear band affected zones during cryogenic cycling. Materials Letters, 2022, 326, 132988.	1.3	1
167	Controlling the relaxation versus rejuvenation behavior in Zr-based bulk metallic glasses induced by elastostatic compression. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 855, 143906.	2.6	2
168	Aging and rejuvenation during high-temperature deformation in a metallic glass. Science China: Physics, Mechanics and Astronomy, 2022, 65, .	2.0	13
169	Uncovering the Inherent Size Dependence of Yield Strength and Failure Mechanism in Micron-Sized Metallic Glass. Materials, 2022, 15, 6362.	1.3	3
170	Discovery of a new criterion for predicting glass-forming ability based on symbolic regression and artificial neural network. Journal of Applied Physics, 2022, 132, .	1.1	8
171	Mechanical annealing and memories in a disordered solid. Science Advances, 2022, 8, .	4.7	4
172	Rejuvenation by enthalpy relaxation in metallic glasses. Acta Materialia, 2022, 241, 118376.	3.8	9
173	Shear Band Control for Improved Strength-Ductility Synergy in Metallic Glasses. Applied Mechanics Reviews, 2022, 74, .	4.5	8
174	Towards commonality between shear banding and glass-liquid transition in metallic glasses. Physical Review Materials, 2022, 6, .	0.9	1
175	Rejuvenation by compressive elasto-static loading: The role of static stress on a Zr-based metallic glass. Journal of Alloys and Compounds, 2023, 933, 167715.	2.8	6
176	Effects of Al addition and cryogenic cyclic treatment on impact toughness of phase-transformable Ti-based bulk metallic glass composites. Journal of Materials Science and Technology, 2023, 140, 210-220.	5.6	8
177	Relaxation dynamics in amorphous alloys under asymmetric cyclic shear deformation. Journal of Non-Crystalline Solids, 2023, 600, 121996.	1.5	2
178	Additive manufacturing of bulk metallic glass: Principles, materials and prospects. Materials Today Advances, 2022, 16, 100319.	2.5	9
179	Unexpected enhanced catalytic performance via highly dense interfaces in ultra-fine amorphous-nanocrystalline biphasic structure. Applied Materials Today, 2022, 29, 101689.	2.3	3
180	Anelastic-like nature of the rejuvenation of metallic glasses by cryogenic thermal cycling. Acta Materialia, 2023, 244, 118551.	3.8	16
181	Microbatteries with twin-Swiss-rolls redefine performance limits in the sub-square millimeter range. Nanoscale Horizons, 2022, 8, 127-132.	4.1	9

#	Article	IF	Citations
182	Metallic glacial glass. , 2023, 2, 20220049.		3
183	Towards quantitative determination of atomic structures of amorphous materials in three dimensions. , 2023, 2, 20220048.		3
184	Structural rejuvenation of a well-aged metallic glass. Fundamental Research, 2022, , .	1.6	2
185	Hidden and universal relaxation mode in metallic glasses of simple atomic structure. Physical Review B, 2022, 106, .	1.1	2
186	A regime beyond the Hallâ€“Petch and inverse-Hallâ€“Petch regimes in ultrafine-grained solids. Communications Physics, 2022, 5, .	2.0	4
187	Optimally rejuvenated model binary glasses. Physical Review Materials, 2022, 6, .	0.9	0
188	Tailoring the mechanical properties of bulk metallic glasses via cooling from the supercooled liquid region. Science China Technological Sciences, 2023, 66, 173-180.	2.0	2
189	Primary and secondary phase separation in Cuâ€“Zrâ€“Al bulk metallic glass by control of quenching conditions. Intermetallics, 2023, 156, 107853.	1.8	3
190	Energy-releasing and phase transitions of Ti-based bulk metallic glass composites during heating. Journal of Non-Crystalline Solids, 2023, 607, 122223.	1.5	0
191	Structural decomposition retarded crystal growth in the undercooled liquid of Zr70Al12.5Fe17.5 metallic glass-forming alloy. Materialia, 2023, 28, 101739.	1.3	0
192	Training Î² relaxation to rejuvenate metallic glasses. Journal of Materials Science and Technology, 2023, 158, 53-62.	5.6	4
193	Annealing Effects of Multidirectional Oscillatory Shear in Model Glass Formers. Physical Review Applied, 2023, 19, .	1.5	0
194	Homogenization of a metallic melt: Enhancing the thermal stability of glassy metal. Materials Today Physics, 2023, 31, 101004.	2.9	4
195	The Î² relaxation process of La-based amorphous alloy: Effect of annealing and strain amplitude. Wuli Xuebao/Acta Physica Sinica, 2023, 72, 076101.	0.2	1
196	Non-monotonic influence of cryogenic thermal cycling on rejuvenation and impact toughness of Ti-based bulk metallic glass composites. Scripta Materialia, 2023, 228, 115340.	2.6	3
197	Structural heterogeneity governing deformability of metallic glass. Matter, 2023, 6, 1160-1172.	5.0	7
198	äº^è²è•ã‚'å•–ã‹ãŸZr₅₅Al₁₀Cu₃₀Ni₅é‡'å±žã Zairyo/Journal of the Society of Materials Science, Japan, 2023, 72, 242-247.	0.1	0
199	Research progress on the shear band of metallic glasses. Journal of Alloys and Compounds, 2023, 955, 170164.	2.8	4

#	Article	IF	Citations
200	New pathways to control the evolution of the atomic motion in metallic glasses. Comptes Rendus Physique, 2023, 24, 1-11.	0.3	0
208	Recent Progress of Amorphous Nanomaterials. Chemical Reviews, 2023, 123, 8859-8941.	23.0	29
218	Metallic glasses. MRS Bulletin, 2023, 48, 1054-1061.	1.7	5