Jean-Marc Pelletier

List of Publications by Year
in descending order

97	3,085	186265 28	182427 51
papers	citations	h-index	g-index

97	97	97	1407
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Effect of physical aging and cyclic loading on power-law creep of high-entropy metallic glass. Journal of Materials Science and Technology, 2022, 115, 1-9.	10.7	6
2	A hierarchically correlated flow defect model for metallic glass: Universal understanding of stress relaxation and creep. International Journal of Plasticity, 2022, 154, 103288.	8.8	29
3	Effect of minor addition on dynamic mechanical relaxation in ZrCu-based metallic glasses. Journal of Non-Crystalline Solids, 2021, 553, 120496.	3.1	7
4	Dynamic mechanical behavior of (La0.7Ce0.3)65Al10Co25 bulk metallic glass: Influence of the physical aging and heat treatment. Journal of Alloys and Compounds, 2021, 869, 159271.	5.5	6
5	Identifying the high entropy characteristic in La-based metallic glasses. Applied Physics Letters, 2021, 119, .	3.3	3
6	Dynamic mechanical relaxation behavior of Zr35Hf17.5Ti5.5Al12.5Co7.5Ni12Cu10 high entropy bulk metallic glass. Journal of Materials Science and Technology, 2021, 83, 248-255.	10.7	32
7	Modelling and physical analysis of the high-temperature rheological behavior of a metallic glass. International Journal of Plasticity, 2021, 146, 103107.	8.8	28
8	Dynamic mechanical response of ZrCu-based bulk metallic glasses. International Journal of Mechanical Sciences, 2021, 211, 106770.	6.7	11
9	Effect of Zener-Hollomon parameter on the flow behavior of Zr-based metallic glass. Journal of Alloys and Compounds, 2020, 819, 152987.	5.5	4
10	Strong metallic glass: TiZrHfCuNiBe high entropy alloy. Journal of Alloys and Compounds, 2020, 820, 153119.	5.5	19
11	Dynamic mechanical behaviors of a metastable <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.svg"><mml:mrow><mml:mi mathvariant="bold">Î²</mml:mi></mml:mrow></mml:math>-type bulk metallic glass composite. Journal of Alloys and Compounds, 2020, 819, 153040.	5.5	10
12	Unified perspective on structural heterogeneity of a LaCe-based metallic glass from versatile dynamic stimuli. Intermetallics, 2020, 125, 106922.	3.9	8
13	Relaxation of internal friction and shear viscosity in Zr57Nb5Al10Cu15.4Ni12.6 metallic glass. Intermetallics, 2020, 124, 106846.	3.9	9
14	Aspect ratio effects on the serrated flow dynamic of TiZrHfCuNiBe high entropy metallic glass. Intermetallics, 2020, 119, 106726.	3.9	17
15	Dynamic Mechanical Relaxation in LaCe-Based Metallic Glasses: Influence of the Chemical Composition. Metals, 2019, 9, 1013.	2.3	7
16	Rate-dependent plastic deformation of TiZrHfCuNiBe high entropy bulk metallic glass. Journal of Alloys and Compounds, 2019, 785, 542-552.	5.5	17
17	Structural heterogeneities and mechanical behavior of amorphous alloys. Progress in Materials Science, 2019, 104, 250-329.	32.8	428
18	Three-dimensional structure and formation mechanisms of Y2O3 hollow-precipitates in a Cu-based metallic glass. Materials and Design, 2019, 168, 107660.	7.0	13

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19	Main Î± relaxation and slow Î² relaxation processes in a La30Ce30Al15Co25 metallic glass. Journal of Materials Science and Technology, 2019, 35, 982-986.	10.7	31
20	Creep in bulk metallic glasses. Transition from linear to non linear regime. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 743, 185-189.	5.6	19
21	Enhanced compressive plasticity in a Cu-Zr-Al â€“ Based metallic glass composite. Journal of Alloys and Compounds, 2019, 782, 59-68.	5.5	19
22	Physical mechanism of internal friction behavior of Î²-type bulk metallic glass composites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 739, 193-197.	5.6	10
23	Metallic Glasses. Springer Handbooks, 2019, , 617-643.	0.6	6
24	Viscoelasticity of Cu- and La-based bulk metallic glasses: Interpretation based on the quasi-point defects theory. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 719, 164-170.	5.6	15
25	Distinctive slow Î² relaxation and structural heterogeneity in (LaCe)-based metallic glass. Journal of Alloys and Compounds, 2018, 742, 536-541.	5.5	11
26	Effects of iron addition on the dynamic mechanical relaxation of Zr55Cu30Ni5Al10 bulk metallic glasses. Journal of Alloys and Compounds, 2018, 749, 262-267.	5.5	16
27	Manufacturing of Cu-based metallic glasses matrix composites by spark plasma sintering. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 711, 405-414.	5.6	21
28	The dynamic mechanical characteristics of Zr-based bulk metallic glasses and composites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 711, 356-363.	5.6	12
29	Mechanical relaxation behavior of Zr64.13Cu15.75Ni10.12Al10 bulk metallic glass. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 738, 57-62.	5.6	3
30	Improvement of mechanical, thermal, and corrosion properties of Ni- and Al-free Cuâ€“Zrâ€“Ti metallic glass with yttrium addition. Materialia, 2018, 1, 249-257.	2.7	8
31	Experimental analysis to the structural relaxation of Ti48Zr20V12Cu5Be15 metallic glass matrix composite. Journal of Alloys and Compounds, 2018, 769, 443-452.	5.5	6
32	On the Potential of Bulk Metallic Glasses for Dental Implantology: Case Study on Ti40Zr10Cu36Pd14. Materials, 2018, 11, 249.	2.9	30
33	Relaxation of Ni-free Ti40Zr10Cu36Pd14 bulk metallic glass under mechanical stress. Intermetallics, 2018, 102, 6-10.	3.9	5
34	Slow Î² relaxation in La-based metallic glasses based on mechanical spectroscopy measurements. Journal of Iron and Steel Research International, 2017, 24, 397-401.	2.8	1
35	Arrhenius activation of Zr65Cu18Ni7Al10 bulk metallic glass in the supercooled liquid region. Intermetallics, 2017, 86, 88-93.	3.9	8
36	Physical aging effects on the dynamic relaxation behavior and mechanical properties of Cu46Zr46Al8 metallic glass. Journal of Alloys and Compounds, 2017, 726, 195-200.	5.5	10

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37	Abnormal internal friction in the in-situ Ti60Zr15V10Cu5Be10 metallic glass matrix composite. Journal of Alloys and Compounds, 2017, 724, 921-931.	5.5	33
38	Characterization and modeling of dynamic relaxation of a Zr-based bulk metallic glass. Journal of Alloys and Compounds, 2017, 690, 212-220.	5.5	17
39	Understanding of micro-alloying on plasticity in Cu 46 Zr 47â^'x Al 7 Dy x (0â‰ÂxÂâ‰Â8) bulk metallic glasses under compression: Based on mechanical relaxations and theoretical analysis. International Journal of Plasticity, 2016, 82, 62-75.	8.8	153
40	Main and secondary relaxations in an Au-based bulk metallic glass investigated by mechanical spectroscopy. Journal of Alloys and Compounds, 2016, 684, 530-536.	5.5	12
41	Mechanical properties of Ti16.7Zr16.7Hf16.7Cu16.7Ni16.7Be16.7 high-entropy bulk metallic glass. Journal of Non-Crystalline Solids, 2016, 452, 57-61.	3.1	46
42	Bulk metallic glasses: â€œDefectsâ€•determines performance. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 675, 379-385.	5.6	8
43	Influence of spark plasma sintering parameters on the mechanical properties of Cu50Zr45Al5 bulk metallic glass obtained using metallic glass powder. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 677, 116-124.	5.6	24
44	Dynamics of the strong metallic glass Zn38Mg12Ca32Yb18. Journal of Non-Crystalline Solids, 2016, 447, 85-90.	3.1	16
45	Thermal activation in the Zr 65 Cu 18 Ni 7 Al 10 metallic glass by creep deformation and stress relaxation. Scripta Materialia, 2016, 113, 180-184.	5.2	19
46	Insight on the process ability of bulk metallic glasses by thermo-mechanical analysis and dynamic mechanical analysis. Journal of Alloys and Compounds, 2015, 628, 357-363.	5.5	12
47	Characteristics of stress relaxation kinetics of La 60 Ni 15 Al 25 bulk metallic glass. Acta Materialia, 2015, 98, 43-50.	7.9	89
48	Non-isothermal crystallization transformation kinetics analysis and isothermal crystallization kinetics in super-cooled liquid region (SLR) of (Ce0.72Cu0.28)90â^'xAl10Fex (x=0, 5 or 10) bulk metallic glasses. Journal of Non-Crystalline Solids, 2015, 415, 42-50.	3.1	32
49	Bulk metallic glasses based on precious metals: Thermal treatments and mechanical properties. Intermetallics, 2015, 63, 73-79.	3.9	15
50	Main (Î±) relaxation and excess wing in Zr 50 Cu 40 Al 10 bulk metallic glass investigated by mechanical spectroscopy. Journal of Non-Crystalline Solids, 2015, 407, 106-109.	3.1	19
51	Influence of thermal treatments and plastic deformation on the atomic mobility in Zr50.7Cu28Ni9Al12.3 bulk metallic glass. Journal of Alloys and Compounds, 2014, 615, S85-S89.	5.5	16
52	Dynamic universal characteristic of the main (Î±) relaxation in bulk metallic glasses. Journal of Alloys and Compounds, 2014, 589, 263-270.	5.5	39
53	Effect of physical aging on Johari-Goldstein relaxation in La-based bulk metallic glass. Journal of Chemical Physics, 2014, 141, 104510.	3.0	35
54	Characteristics of the Structural and Johariâ€“Goldstein Relaxations in Pd-Based Metallic Glass-Forming Liquids. Journal of Physical Chemistry B, 2014, 118, 3720-3730.	2.6	52

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55	Microstructural, thermal and mechanical behavior of co-sputtered binary Zrâ€“Cu thin film metallic glasses. Thin Solid Films, 2014, 561, 53-59.	1.8	52
56	Dynamic Mechanical Relaxation in Bulk Metallic Glasses: A Review. Journal of Materials Science and Technology, 2014, 30, 523-545.	10.7	229
57	Impact of the structural state on the mechanical properties in a Zrâ€“Coâ€“Al bulk metallic glass. Journal of Alloys and Compounds, 2014, 607, 139-149.	5.5	45
58	Influence of the poly(ethylene oxide)/polybutadiene IPN morphology on the ionic conductivity of ionic liquid. European Polymer Journal, 2013, 49, 2670-2679.	5.4	11
59	Relaxation of Bulk Metallic Glasses Studied by Mechanical Spectroscopy. Journal of Physical Chemistry B, 2013, 117, 13658-13666.	2.6	79
60	Analysis of atomic mobility in a Cu38Zr46Ag8Al8 bulk metallic glass. Journal of Alloys and Compounds, 2013, 549, 370-374.	5.5	25
61	High temperature deformation in a lanthanum based bulk metallic glass showing a pronounced secondary relaxation. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 586, 57-61.	5.6	18
62	Isochronal and isothermal crystallization in Zr55Cu30Ni5 Al10 bulk metallic glass. Transactions of Nonferrous Metals Society of China, 2012, 22, 577-584.	4.2	37
63	Kinetics of structural relaxation in bulk metallic glasses by mechanical spectroscopy: Determination of the stretching parameter Î²KWW. Intermetallics, 2012, 28, 40-44.	3.9	29
64	Modification of atomic mobility in a Ti-based bulk metallic glass by plastic deformation or thermal annealing. Intermetallics, 2012, 28, 128-137.	3.9	54
65	Enthalpy relaxation in Cu46Zr45Al7Y2 and Zr55Cu30Ni5Al10 bulk metallic glasses by differential scanning calorimetry (DSC). Intermetallics, 2011, 19, 9-18.	3.9	74
66	On calorimetric study of the fragility in bulk metallic glasses with low glass transition temperature: (Ce0.72Cu0.28)90â^'x Al10Fex (xÂ=Â0, 5 or 10) and Zn38Mg12Ca32Yb18. Intermetallics, 2011, 19, 1367-1373.	3.9	24
67	Crystallization kinetics in Cu46Zr45Al7Y2 bulk metallic glass by differential scanning calorimetry (DSC). Journal of Non-Crystalline Solids, 2011, 357, 2590-2594.	3.1	107
68	Elastic and viscoelastic properties of glassy, quasicrystalline and crystalline phases in Zr65Cu5Ni10Al7.5Pd12.5 alloys. Acta Materialia, 2011, 59, 2797-2806.	7.9	43
69	High temperature homogeneous plastic flow behavior of a Zr based bulk metallic glass matrix composite. Journal of Alloys and Compounds, 2010, 495, 50-54.	5.5	14
70	Thermal stability of cerium-based bulk metallic glasses. Influence of iron addition. Journal of Alloys and Compounds, 2010, 504, 357-361.	5.5	18
71	Pd-Cu-Ni-P Bulk Metallic Glass: A Very Low Damping Material. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2008, 39, 1791-1796.	2.2	6
72	Increase in molecular mobility of an amorphous polymer deformed below T_g. Journal of Polymer Science, Part B: Polymer Physics, 2008, 46, 497-505.	2.1	8

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73	Influence of structural relaxation on atomic mobility in a Zr41.2Ti13.8Cu125Ni10.0Be22.5 (Vit1) bulk metallic glass. Journal of Non-Crystalline Solids, 2008, 354, 3666-3670.	3.1	25
74	Mechanical properties of bulk metallic glasses: Elastic, visco-elastic and visco-plastic components in the deformation. Journal of Non-Crystalline Solids, 2007, 353, 3750-3753.	3.1	22
75	Poly(ethylene oxide)/polybutadiene based IPNs synthesis and characterization. Polymer, 2007, 48, 696-703.	3.8	50
76	Polybutadiene/poly(ethylene oxide) based IPNs, Part II: Mechanical modelling and LiClO4 loading as tools for IPN morphology investigation. Polymer, 2007, 48, 7476-7483.	3.8	21
77	The viscoelastic properties of bulk Zr55Cu25Ni5Al10Nb5 metallic glass. Journal of Alloys and Compounds, 2006, 413, 181-187.	5.5	21
78	Mechanical spectroscopy: some applications to material science. International Journal of Materials and Product Technology, 2006, 26, 312.	0.2	6
79	Viscoelasticity of metallic, polymeric and oxide glasses. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2006, 442, 250-255.	5.6	14
80	Deformation and crystallization of a Zr41.2Ti13.8Cu12.5Ni10Be22.5 bulk metallic glass in the supercooled liquid region. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2006, 435-436, 405-411.	5.6	11
81	Molecular mobility of crosslinked elastomers stretched above Tg. Polymer, 2006, 47, 3477-3485.	3.8	24
82	Characterization of the Drastic Increase in Molecular Mobility of a Deformed Amorphous Polymer. Physical Review Letters, 2006, 97, 207801.	7.8	42
83	Study of internal friction behavior in a Zr base bulk amorphous alloy around the glass transition. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2005, 403, 328-333.	5.6	13
84	Dynamic mechanical properties in a Zr46.8Ti13.8Cu12.5Ni10Be27.5 bulk metallic glass. Journal of Alloys and Compounds, 2005, 393, 223-230.	5.5	36
85	Mechanical properties over the glass transition of Zr41.2Ti13.8Cu12.5Ni10Be22.5 bulk metallic glass. Journal of Non-Crystalline Solids, 2005, 351, 2224-2231.	3.1	40
86	Correlation between microstructure and internal friction in a Zr41.2â€“Ti13.8â€“Cu12.5â€“Ni8â€“ Be22.5â€–Fe2 bulk metallic glass. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2004, 379, 197-203.	5.6	15
87	Phase separation before crystallization in Zrâ€“Tiâ€“Cuâ€–Niâ€–Be bulk metallic glasses: influence of the chemical composition. Journal of Non-Crystalline Solids, 2004, 345-346, 169-172.	3.1	12
88	Phase separation and crystallization in the Zr41.2â€–Ti13.8â€–Cu12.5â€–Ni10â€–Be22.5 bulk metallic glass determined by physical measurements and electron microscopy. Journal of Non-Crystalline Solids, 2003, 325, 133-141.	3.1	43
89	High Temperature Deformation in the Amorphous or Partially Crystallized Zr41.2Ti13.8Cu12.5Ni10Be22.5 Bulk Metallic Glass. Materials Research Society Symposia Proceedings, 2002, 754, 1.	0.1	1
90	Viscoelasticity and viscosity of Pdâ€“Niâ€–Cuâ€–P bulk metallic glasses. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2002, 336, 190-195.	5.6	121

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91	Mechanical response of an oxide glass to mechanical loadingâ€"shear and volume relaxation effects: physical analysis. Acta Materialia, 2000, 48, 1397-1408.	7.9	22
92	Relaxation of non-crystalline solids under mechanical stress. Journal of Non-Crystalline Solids, 2000, 274, 181-187.	3.1	52
93	Physical properties of bulk amorphous glasses: influence of physical aging and onset of crystallisation. Journal of Non-Crystalline Solids, 2000, 274, 301-306.	3.1	26
94	Evidence for a residual elastic modulus in inorganic glasses by mechanical spectroscopy. Journal of Non-Crystalline Solids, 1999, 258, 119-130.	3.1	14
95	Reversible and irreversible changes in amorphous alloys: Detection by thermoelectric power measurements. Materials Science and Engineering, 1986, 77, 175-179.	0.1	3
96	Precipitation effects on thermopower in Al-Cu alloys. Acta Metallurgica, 1984, 32, 1069-1078.	2.1	42
97	Influence of short range ordering and clustering on transport properties. Acta Metallurgica, 1982, 30, 1851-1859.	2.1	14