Masato Wakeda

List of Publications by Year
in descending order

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47 papers	1,563 citations	430843 18 h-index	302107 39 g-index
47 all docs	47 docs citations	47 times ranked	1061 citing authors

#	Article	IF	Citations
1	Atomistic study on simultaneous achievement of partial crystallization and rejuvenated glassy structure in thermal process of metallic glasses. Philosophical Magazine, 2022, 102, 1209-1230.	1.6	6
2	Pop-In Phenomenon as a Fundamental Plasticity Probed by Nanoindentation Technique. Materials, 2021, 14, 1879.	2.9	25
3	Relaxation Behavior and Heterogeneous Structures of Metallic Glasses. Zairyo/Journal of the Society of Materials Science, Japan, 2021, 70, 374-380.	0.2	0
4	Local Deformation Behavior of the Copper Harmonic Structure near Grain Boundaries Investigated through Nanoindentation. Materials, 2021, 14, 5663.	2.9	3
5	Multiscale analyses of the interaction between dislocation and Î£9 symmetric tilt grain boundaries in Feâ€“Si bicrystals by nanoindentation technique. International Journal of Plasticity, 2021, 145, 103047.	8.8	8
6	High-pressure annealing driven nanocrystal formation in Zr50Cu40Al10 metallic glass and strength increase. Communications Materials, 2020, 1, .	6.9	10
7	Anomalous solution softening by unique energy balance mediated by kink mechanism in tungsten-rhenium alloys. Journal of Applied Physics, 2020, 127, .	2.5	9
8	Structural relaxation affecting shear-transformation avalanches in metallic glasses. Physical Review E, 2019, 100, 043002.	2.1	11
9	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.	6.1	40
10	An atomistically informed kinetic Monte Carlo model for predicting solid solution strengthening of body-centered cubic alloys. International Journal of Plasticity, 2019, 122, 319-337.	8.8	26
11	Thermal Rejuvenation in Metallic Glasses. Zairyo/Journal of the Society of Materials Science, Japan, 2019, 68, 185-190.	0.2	1
12	Atomic study on the interaction between superlattice screw dislocation and Î³-Ni precipitate in Î³â€²-Ni3Al intermetallics. Intermetallics, 2018, 102, 1-5.	3.9	10
13	Thermal rejuvenation in metallic glasses. Science and Technology of Advanced Materials, 2017, 18, 152-162.	6.1	82
14	Chemical misfit origin of solute strengthening in iron alloys. Acta Materialia, 2017, 131, 445-456.	7.9	36
15	Mechanical properties of Fe-rich Si alloy from Hamiltonian. Npj Computational Materials, 2017, 3, .	8.7	20
16	Predictive modeling of Time-Temperature-Transformation diagram of metallic glasses based on atomistically-informed classical nucleation theory. Scientific Reports, 2017, 7, 7194.	3.3	15
17	Interaction analyses between substitutional solutes and carbon near the dislocation core in bcc-Fe. The Proceedings of the Computational Mechanics Conference, 2017, 2017.30, 162.	0.0	0
18	Theoretical Prediction of Macroscopic Yield Strength for Fe Alloy Based on Atomistic Study. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 2016, 80, 197-205.	0.4	7

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19	Properties of high-density, well-ordered, and high-energy metallic glass phase designed by pressurized quenching. Applied Physics Letters, 2016, 109, .	3.3	14
20	Prediction of pressure-promoted thermal rejuvenation in metallic glasses. Npj Computational Materials, 2016, 2, .	8.7	67
21	Atomistic Study on Medium-Range Order Structures in Amorphous Metals. Zairyo/Journal of the Society of Materials Science, Japan, 2015, 64, 156-162.	0.2	2
22	Numerical Study on Shear Deformation of Cu-Zr Metallic Glass - Molecular Dynamics Simulation and Radial Basis Function Analysis -. Zairyo/Journal of the Society of Materials Science, Japan, 2015, 64, 163-168.	0.2	0
23	Controlled Rejuvenation of Amorphous Metals with Thermal Processing. Scientific Reports, 2015, 5, 10545.	3.3	110
24	Recovery of less relaxed state in Zr-Al-Ni-Cu bulk metallic glass annealed above glass transition temperature. Applied Physics Letters, 2013, 103, .	3.3	56
25	Mechanics of Amorphous Metals (Elastic-Plastic Finite Element Analyses Using Inhomogeneous Defects) Tj ETQq1 1 0.784314 rgBT /Ove Engineers, Part A, 2013, 79, 1807-1817.	0.2	2
26	Atomistic Study of Interaction between Screw Dislocation and Si Atom in Fe-Si Alloy. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 2013, 77, 409-414.	0.4	8
27	Temperature Dependence of Viscosity in Supercooled Liquid of Cu-Zr Bulk Metallic Glass by Molecular Dynamics. Zairyo/Journal of the Society of Materials Science, Japan, 2013, 62, 172-178.	0.2	1
28	MeV Electron Irradiation Induced Solid-State Amorphization (SSA) in B2 Intermetallic Compounds. Zairyo/Journal of the Society of Materials Science, Japan, 2013, 62, 185-190.	0.2	2
29	Enhancement of Plasticity of Highly Density-Fluctuated Cu-Zr Amorphous Alloy. Materials Transactions, 2010, 51, 1504-1509.	1.2	1
30	Icosahedral clustering with medium-range order and local elastic properties of amorphous metals. Acta Materialia, 2010, 58, 3963-3969.	7.9	114
31	Electron-irradiation-induced solid-state amorphization caused by thermal relaxation of lattice defects. Intermetallics, 2010, 18, 441-450.	3.9	12
32	707 Thermoelastic Finite Element Stress Analysis in Two-Dimensional Functionally Graded Material Nose Cone to Thermal Stress Relaxation.. The Proceedings of Autumn Conference of Tohoku Branch, 2010, 2010.46, 205-206.	0.0	0
33	Mechanical Properties and Deformation Mechanism of Metallic Glasses. Zairyo/Journal of the Society of Materials Science, Japan, 2009, 58, 199-204.	0.2	2
34	Multiple shear banding in a computational amorphous alloy model. Applied Physics A: Materials Science and Processing, 2008, 91, 281-285.	2.3	26
35	Elastostatically induced structural disordering in amorphous alloys. Acta Materialia, 2008, 56, 5440-5450.	7.9	191
36	Effect of the Atomic Packing Density on the Structural Change Rate of Amorphous Alloys under Elastostatic Stress. Metals and Materials International, 2008, 14, 159-163.	3.4	20

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37	Homogeneous deformation of bulk amorphous alloys during elastostatic compression and its packing density dependence. Scripta Materialia, 2008, 59, 710-713.	5.2	18
38	Atomistic Formation Mechanism of Multiple Shear Bands in Amorphous Metals. Zairyo/Journal of the Society of Materials Science, Japan, 2008, 57, 119-125.	0.2	6
39	Origin of the plasticity in bulk amorphous alloys. Journal of Materials Research, 2007, 22, 3087-3097.	2.6	98
40	Computational Relationship of Deformation Behavior and Materials Strength of Amorphous Alloys to Short-Ranged Local Structures. Materials Science Forum, 2007, 539-543, 1911-1916.	0.3	1
41	Shear Banding Analyses of Amorphous Alloys with Crystalline Particles. Materials Science Forum, 2007, 561-565, 1323-1328.	0.3	1
42	Influence of Size and Number of Nanocrystals on Shear Band Formation in Amorphous Alloys. Materials Transactions, 2007, 48, 1001-1006.	1.2	6
43	Relationship between local geometrical factors and mechanical properties for Cuâ€“Zr amorphous alloys. Intermetallics, 2007, 15, 139-144.	3.9	201
44	Atomic packing density and its influence on the properties of Cuâ€“Zr amorphous alloys. Scripta Materialia, 2007, 57, 805-808.	5.2	165
45	Atomistic simulation of shear localization in Cuâ€“Zr bulk metallic glass. Intermetallics, 2006, 14, 1033-1037.	3.9	124
46	Effects of Atomic Deviatoric Distortion on Local Glass Transition of Metallic Glasses. Materials Transactions, 2005, 46, 2848-2855.	1.2	6
47	Existence of Local Network Structure in Binary Amorphous Metals and its Contribution to Elastic Properties. Advanced Materials Research, 0, 89-91, 604-608.	0.3	0