Dong Wang

List of Publications by Year
in descending order

92 papers	3,503 citations	147801 31 h-index	149698 56 g-index
93 all docs	93 docs citations	93 times ranked	2064 citing authors

#	Article	IF	Citations
1	Enhanced mechanical properties of Ti-5Al-5Mo-5V-3Cr-1Zr by bimodal lamellar precipitate microstructures via two-step aging. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 829, 142117.	5.6	28
2	A new Î±Â+ÂÎ² Ti-alloy with refined microstructures and enhanced mechanical properties in the as-cast state. Scripta Materialia, 2022, 207, 114260.	5.2	31
3	Role of point defects in the formation of relaxor ferroelectrics. Acta Materialia, 2022, 225, 117558.	7.9	20
4	New Degree of Freedom in Determining Superior Piezoelectricity at the Lead-Free Morphotropic Phase Boundary: The Invisible Ferroelectric Crossover. ACS Applied Materials & Interfaces, 2022, 14, 1434-1442.	8.0	6
5	Reentrant strain glass transition in Ti-Ni-Cu shape memory alloy. Acta Materialia, 2022, 226, 117618.	7.9	14
6	Improved Energy Storage Properties Achieved in (K, Na)NbO₃â€‘Based Relaxor Ferroelectric Ceramics via a Combinatorial Optimization Strategy. Advanced Functional Materials, 2022, 32, .	14.9	79
7	Quasiâ€Linear Superelasticity with Ultralow Modulus in Tensile Cyclic Deformed TiNi Strain Glass. Advanced Engineering Materials, 2022, 24, .	3.5	3
8	Strain Glass State, Strain Glass Transition, and Controlled Strain Release. Annual Review of Materials Research, 2022, 52, 159-187.	9.3	10
9	Heterogeneous precipitate microstructure in titanium alloys for simultaneous improvement of strength and ductility. Journal of Materials Science and Technology, 2022, 124, 150-163.	10.7	10
10	Strain states and unique properties in cold-rolled TiNi shape memory alloys. Acta Materialia, 2022, 231, 117890.	7.9	24
11	Low-energy irradiation induced giant quasilinear superelasticity over wide temperature range in NiTi shape memory alloys. Physical Review Materials, 2022, 6, .	2.4	0
12	Highâ€Performance Strain of Leadâ€Free Relaxorâ€Ferroelectric Piezoceramics by the Morphotropic Phase Boundary Modification. Advanced Functional Materials, 2022, 32, .	14.9	16
13	Stabilized piezoelectricity upon ferro-ferro phase transition achieved by aging induced domain memory effect in acceptor doped lead-free ceramics. Scripta Materialia, 2022, 219, 114872.	5.2	0
14	A lightweight strain glass alloy showing nearly temperature-independent low modulus and high strength. Nature Materials, 2022, 21, 1003-1007.	27.5	18
15	Kinetic arrest behavior in Ni-Co-Mn-Sn alloys within the phase boundary between martensite and strain glass. Scripta Materialia, 2021, 194, 113671.	5.2	10
16	Existence of a quadruple point in a binary ferroelectric phase diagram. Physical Review B, 2021, 103, .	3.2	8
17	Tailoring thermal expansion coefficient from positive through zero to negative in the compositional crossover alloy Ti50(Pd40Cr10) by uniaxial tensile stress. Materials and Design, 2021, 199, 109431.	7.0	3
18	Heterogeneous Microstructure Enhanced Comprehensive Mechanical Properties in Titanium Alloys. Jom, 2021, 73, 3082-3091.	1.9	2

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19	Trirelaxor Ferroelectric Material with Giant Dielectric Permittivity over a Wide Temperature Range. ACS Applied Materials & Interfaces, 2021, 13, 33272-33281.	8.0	21
20	A novel two-stage martensitic transformation induced by nanoscale concentration modulation in a TiNb-based shape memory alloy. Computational Materials Science, 2021, 200, 110843.	3.0	2
21	Large electrostrain with nearly-vanished hysteresis in eco-friendly perovskites by building coexistent glasses near quadruple point. Nano Energy, 2021, 90, 106519.	16.0	20
22	In situ design of advanced titanium alloy with concentration modulations by additive manufacturing. Science, 2021, 374, 478-482.	12.6	168
23	The role of nano-scaled structural non-uniformities on deformation twinning and stress-induced transformation in a cold rolled multifunctional Î²-titanium alloy. Scripta Materialia, 2020, 177, 181-185.	5.2	45
24	Shuffle-nanodomain regulated strain glass transition in Ti-24Nb-4Zr-8Sn alloy. Acta Materialia, 2020, 186, 415-424.	7.9	52
25	Linear-superelastic metals by controlled strain release via nanoscale concentration-gradient engineering. Materials Today, 2020, 33, 17-23.	14.2	33
26	Polarization Spinodal at Ferroelectric Morphotropic Phase Boundary. Physical Review Letters, 2020, 125, 127602.	7.8	14
27	A New Strategy for Large Dynamic Piezoelectric Responses in Leadâ€Free Ferroelectrics: The Relaxor/Morphotropic Phase Boundary Crossover. Advanced Functional Materials, 2020, 30, 2004641.	14.9	38
28	Revealing the atomistic mechanisms of strain glass transition in ferroelastics. Acta Materialia, 2020, 194, 134-143.	7.9	14
29	Novel transformation pathway and heterogeneous precipitate microstructure in Ti-alloys. Acta Materialia, 2020, 196, 409-417.	7.9	35
30	Novel deformation twinning system in a cold rolled high-strength metastable-Î² Ti-5Al-5V-5Mo-3Cr-0.5Fe alloy. Materialia, 2020, 9, 100614.	2.7	21
31	Non-conventional transformation pathways and ultrafine lamellar structures in Î³-TiAl alloys. Acta Materialia, 2020, 189, 25-34.	7.9	34
32	Exploration of Nano-scale Structural Instabilities in Metastable Î² Titanium Alloys Using Advanced Electron Microscopy. MATEC Web of Conferences, 2020, 321, 12001.	0.2	1
33	Making metals linear super-elastic with ultralow modulus and nearly zero hysteresis. Materials Horizons, 2019, 6, 515-523.	12.2	27
34	Reversible Domain-Wall-Motion-Induced Low-Hysteretic Piezoelectric Response in Ferroelectrics. Journal of Physical Chemistry C, 2019, 123, 15434-15440.	3.1	9
35	Secondary hardening behavior in Ti alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 759, 640-647.	5.6	8
36	Tilt strain glass in Sr and Nb co-doped LaAlO3 ceramics. Acta Materialia, 2019, 168, 250-260.	7.9	12

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37	Adaptive Volume Control in Titanium Alloy for High Temperature Performance. Materials, 2019, 12, 3950.	2.9	4
38	Nano-scale structural non-uniformities in gum like Ti-24Nb-4Zr-8Sn metastable Î²-Ti alloy. Scripta Materialia, 2019, 158, 95-99.	5.2	45
39	Phase field simulation of martensitic transformation in pre-strained nanocomposite shape memory alloys. Acta Materialia, 2019, 164, 99-109.	7.9	32
40	Laminated Modulation of Tricritical Ferroelectrics Exhibiting Highly Enhanced Dielectric Permittivity and Temperature Stability. Advanced Functional Materials, 2019, 29, 1807162.	14.9	25
41	Phase Field Model and Computer Simulation of Strain Glasses. Springer Series in Materials Science, 2018, , 253-272.	0.6	0
42	Re-entrant relaxorâ€"ferroelectric composite showing exceptional electromechanical properties. NPG Asia Materials, 2018, 10, 1029-1036.	7.9	36
43	Strain Glasses. Springer Series in Materials Science, 2018, , 183-203.	0.6	6
44	Effect of strain on the Curie temperature and band structure of low-dimensional SbSI. Applied Physics Letters, 2018, 112, .	3.3	10
45	Ferroelectric Domain Walls Approaching Morphotropic Phase Boundary. Journal of Physical Chemistry C, 2017, 121, 2243-2250.	3.1	22
46	Monte Carlo simulation of magnetic domain structure and magnetic properties near the morphotropic phase boundary. Physical Chemistry Chemical Physics, 2017, 19, 7236-7244.	2.8	5
47	High temperature-stability of (Pb 0.9 La 0.1)(Zr 0.65 Ti 0.35)O 3 ceramic for energy-storage applications at finite electric field strength. Scripta Materialia, 2017, 137, 114-118.	5.2	31
48	Taming martensitic transformation via concentration modulation at nanoscale. Acta Materialia, 2017, 130, 196-207.	7.9	52
49	Ferroic glasses. Npj Computational Materials, 2017, 3, .	8.7	27
50	Origin of the modulus anomaly over a wide temperature range of Mn0.70Fe0.25Cu0.05 alloy. Computational Materials Science, 2017, 140, 89-94.	3.0	3
51	Simulation study on exchange interaction and unique magnetization near ferromagnetic morphotropic phase boundary. Journal of Physics Condensed Matter, 2017, 29, 445802.	1.8	2
52	Glass-Glass Transitions by Means of an Acceptor-Donor Percolating Electric-Dipole Network. Physical Review Applied, 2017, 8, .	3.8	17
53	Crystallographic analysis and phase field simulation of transformation plasticity in a multifunctional Î²-Ti alloy. International Journal of Plasticity, 2017, 89, 110-129.	8.8	31
54	Novel B19â€² strain glass with large recoverable strain. Physical Review Materials, 2017, 1, .	2.4	20

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55	Origin of ultrahigh piezoelectric activity of [001]-oriented ferroelectric single crystals at the morphotropic phase boundary. Applied Physics Letters, 2016, 108, 012904.	3.3	12
56	Sandwichlike strain glass phase diagram of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Ti</mml:mi><mml:mn>49</mml:mn></mml: Physical Review B, 2016, 94, .	3.2	11
57	Accelerating ferroic ageing dynamics upon cooling. NPG Asia Materials, 2016, 8, e319-e319.	7.9	7
58	Defect strength and strain glass state in ferroelastic systems. Journal of Alloys and Compounds, 2016, 661, 100-109.	5.5	31
59	Superelasticity and Tunable Thermal Expansion across a Wide Temperature Range. Journal of Materials Science and Technology, 2016, 32, 705-709.	10.7	72
60	Phase transition behaviours near the triple point for Pb-free (1 â˘' x)Ba(Zr _{0.2} Ti) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 547 piezoceramics. Europhysics Letters, 2016, 115, 37001.	2.0	37
61	Large room-temperature electrocaloric effect in lead-free BaHf Ti O3 ceramics under low electric field. Acta Materialia, 2016, 115, 58-67.	7.9	162
62	Role of Ï‰ phase in the formation of extremely refined intragranular Î± precipitates in metastable Î²-titanium alloys. Acta Materialia, 2016, 103, 850-858.	7.9	201
63	Nanoscaled Martensitic Domains in Ferroelastic Systems: Strain Glass. Current Nanoscience, 2016, 12, 192-201.	1.2	2
64	Modeling and Simulation of Microstructure Evolution during Heat Treatment of Titanium Alloys. , 2016, , 573-603.		3
65	Glass-ferroic composite caused by the crystallization of ferroic glass. Physical Review B, 2015, 92, .	3.2	12
66	A new mechanism for low and temperature-independent elastic modulus. Scientific Reports, 2015, 5, 11477.	3.3	33
67	Quantifying the abnormal strain state in ferroelastic materials: A moment invariant approach. Acta Materialia, 2015, 94, 172-180.	7.9	8
68	Origin of an Isothermal<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>R</mml:mi></mml:mrow></mml:math>-Martensite Formation in Ni-rich Ti-Ni Solid Solution: Crystallization of Strain Glass. Physical Review Letters, 2015, 114, 055701.	7.8	48
69	Phase transition sequence in Pb-free 0.96(K0.5Na0.5)0.95Li0.05Nb0.93 Sb0.07O3â˘'0.04BaZrO3 ceramic with large piezoelectric response. Applied Physics Letters, 2015, 107, .	3.3	37
70	Pattern formation during cubic to orthorhombic martensitic transformations in shape memory alloys. Acta Materialia, 2014, 68, 93-105.	7.9	42
71	Superelasticity of slim hysteresis over a wide temperature range by nanodomains of martensite. Acta Materialia, 2014, 66, 349-359.	7.9	81
72	Integrated Computational Materials Engineering (ICME) Approach to Design of Novel Microstructures for Ti-Alloys. Jom, 2014, 66, 1287-1298.	1.9	27

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73	Pseudospinodal mechanism for fine Î±/Î² microstructures in Î²-Ti alloys. Acta Materialia, 2014, 64, 188-197.	7.9	81
74	Strain glass transition in a multifunctional Î²-type Ti alloy. Scientific Reports, 2014, 4, 3995.	3.3	76
75	Strain Glass as a Novel Multi-functional Material. Springer Series in Materials Science, 2014, , 271-288.	0.6	2
76	Unique properties associated with normal martensitic transition and strain glass transition â€" A simulation study. Journal of Alloys and Compounds, 2013, 577, S102-S106.	5.5	4
77	Formation of monoclinic nanodomains at the morphotropic phase boundary of ferroelectric systems. Physical Review B, 2013, 88, .	3.2	46
78	The effect of point defects on ferroelastic phase transition of lanthanum-doped calcium titanate ceramics. Journal of Alloys and Compounds, 2013, 577, S468-S471.	5.5	7
79	Time-dependent ferroelectric transition in Pb(1âˆ'<i>x</i>)(Zr0.4Ti0.6)(1âˆ'<i>x</i>/4)O3â€‰âˆ'â€‰<i>x</i>La system. Applied Physics Letters, 2013, 102, .	3.3	14
80	New intrinsic mechanism on gum-like superelasticity of multifunctional alloys. Scientific Reports, 2013, 3, 2156.	3.3	57
81	Spontaneous strain glass to martensite transition in ferromagnetic Ni-Co-Mn-Ga strain glass. Applied Physics Letters, 2013, 102, .	3.3	22
82	Evidence for crossover martensite in Ti₅₀Ni₄₅Fe₅: An intermediate state between normal martensite and strain glass. Europhysics Letters, 2012, 100, 58001.	2.0	13
83	Large piezoelectricity and dielectric permittivity in BaTiO ₃ -xBaSnO ₃ system: The role of phase coexisting. Europhysics Letters, 2012, 98, 27008.	2.0	206
84	Phase diagram of polar states in doped ferroelectric systems. Physical Review B, 2012, 86, .	3.2	52
85	Modeling magnetic nanotubes using a chain of ellipsoid-rings approach. Journal of Applied Physics, 2012, 111, 063912.	2.5	6
86	Microstructure basis for strong piezoelectricity in Pb-free Ba(Zr0.2Ti0.8)O3-(Ba0.7Ca0.3)TiO3 ceramics. Applied Physics Letters, 2011, 99, .	3.3	241
87	Spontaneous strain glass to martensite transition in a Ti<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>50</mml:mn></mml:msub></mml:math>Ni<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mrow><mml:mn>44.5</mml:mn></mml:mrow></mml:msub></mml:math>Fe<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:	3.2	51
88	Strain glass in Fe-doped Tiâ€"Ni. Acta Materialia, 2010, 58, 6206-6215.	7.9	152
89	Strain glass in doped Ti50(Ni50âˆ'xDx) (D=Co, Cr, Mn) alloys: Implication for the generality of strain glass in defect-containing ferroelastic systems. Acta Materialia, 2010, 58, 5433-5442.	7.9	120
90	Phase diagram of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>Ti</mml:mtext></mml:mrow><mml:mrow><mml:mn>50</mml:m Crossover from martensite to strain glass. Physical Review B, 2010, 81, .	3.2	81

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91	Modeling Abnormal Strain States in Ferroelastic Systems: The Role of Point Defects. Physical Review Letters, 2010, 105, 205702.	7.8	128
92	Strain glass in ferroelastic systems: Premartensitic tweed versus strain glass. Philosophical Magazine, 2010, 90, 141-157.	1.6	114