Yipeng Gao

List of Publications by Year in descending order

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69	1,612	236925	330143
papers	citations	25 h-index	37 g-index

72	72	72	1117
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A simulation study of the shape of Î²â€² precipitates in Mgâ€“Y and Mgâ€“Gd alloys. Acta Materialia, 2013, 61, 453-466.	7.9	150
2	Simulation study of precipitation in an Mgâ€“Yâ€“Nd alloy. Acta Materialia, 2012, 60, 4819-4832.	7.9	84
3	An origin of functional fatigue of shape memory alloys. Acta Materialia, 2017, 126, 389-400.	7.9	77
4	A simulation study of Î² 1 precipitation on dislocations in an Mgâ€“rare earth alloy. Acta Materialia, 2014, 77, 133-150.	7.9	60
5	Taming martensitic transformation via concentration modulation at nanoscale. Acta Materialia, 2017, 130, 196-207.	7.9	52
6	Shuffle-nanodomain regulated strain glass transition in Ti-24Nb-4Zr-8Sn alloy. Acta Materialia, 2020, 186, 415-424.	7.9	52
7	P-phase precipitation and its effect on martensitic transformation in (Ni,Pt)Ti shape memory alloys. Acta Materialia, 2012, 60, 1514-1527.	7.9	50
8	Microstructure Map for Self-Organized Phase Separation during Film Deposition. Physical Review Letters, 2012, 109, 086101.	7.8	49
9	Group theory description of transformation pathway degeneracy in structural phase transformations. Acta Materialia, 2016, 109, 353-363.	7.9	49
10	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
11	Pattern formation during cubic to orthorhombic martensitic transformations in shape memory alloys. Acta Materialia, 2014, 68, 93-105.	7.9	42
12	A universal symmetry criterion for the design of high performance ferroic materials. Acta Materialia, 2017, 127, 438-449.	7.9	42
13	Phase-Field Simulation of Orowan Strengthening by Coherent Precipitate Plates in an Aluminum Alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2015, 46, 3287-3301.	2.2	41
14	Effects of the austenitizing temperature on the mechanical properties of cold-rolled medium-Mn steel system. Journal of Alloys and Compounds, 2017, 691, 51-59.	5.5	41
15	Grand-potential-based phase-field model for multiple phases, grains, and chemical components. Physical Review E, 2018, 98, 023309.	2.1	40
16	Formation and self-organization of void superlattices under irradiation: A phase field study. Materialia, 2018, 1, 78-88.	2.7	39
17	Austenite grain refinement during load-biased thermal cycling of a Ni49.9Ti50.1 shape memory alloy. Acta Materialia, 2015, 91, 318-329.	7.9	37
18	Nano Î³â€²/Î³â€³ composite precipitates in Alloy 718. Applied Physics Letters, 2012, 100, .	3.3	33

#	Article	IF	Citations
19	Linear-superelastic metals by controlled strain release via nanoscale concentration-gradient engineering. Materials Today, 2020, 33, 17-23.	14.2	33
20	Defect strength and strain glass state in ferroelastic systems. Journal of Alloys and Compounds, 2016, 661, 100-109.	5.5	31
21	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
22	Mechanical behavior and microstructural analysis of NiTi-40Au shape memory alloys exhibiting work output above 400ÂÂ°C. Intermetallics, 2017, 86, 33-44.	3.9	27
23	Theoretical prediction and atomic kinetic Monte Carlo simulations of void superlattice self-organization under irradiation. Scientific Reports, 2018, 8, 6629.	3.3	27
24	Making metals linear super-elastic with ultralow modulus and nearly zero hysteresis. Materials Horizons, 2019, 6, 515-523.	12.2	27
25	Enhanced superplasticity achieved by disclination-dislocation reactions in a fine-grained low-alloyed magnesium system. International Journal of Plasticity, 2022, 154, 103300.	8.8	27
26	Intrinsic coupling between twinning plasticity and transformation plasticity in metastable Î² Ti-alloys: A symmetry and pathway analysis. Acta Materialia, 2020, 196, 488-504.	7.9	24
27	H-phase precipitation and its effects on martensitic transformation in NiTi-Hf high-temperature shape memory alloys. Acta Materialia, 2021, 208, 116651.	7.9	24
28	Determination of twinning path from broken symmetry: A revisit to deformation twinning in bcc metals. Acta Materialia, 2020, 196, 280-294.	7.9	23
29	Pattern formation during interfacial reaction in-between liquid Sn and Cu substrates â€“ A simulation study. Acta Materialia, 2016, 113, 245-258.	7.9	22
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	Regulation of Cathode Mass and Charge Transfer by Structural 3D Engineering for Protonic Ceramic Fuel Cell at 400ÂÂ°C. Advanced Functional Materials, 2021, 31, 2102907.	14.9	21
32	Symmetry and pathway analyses of the twinning modes in Niâ€“Ti shape memory alloys. Materialia, 2019, 6, 100320.	2.7	19
33	Enhanced ductility of Mgâ€“1Znâ€“0.2Zr alloy with dilute Ca addition achieved by activation of non-basal slip and twinning. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 813, 141128.	5.6	19
34	Rapid dislocation-mediated solute repartitioning towards strain-aging hardening in a fine-grained dilute magnesium alloy. Materials Research Letters, 2022, 10, 21-28.	8.7	17
35	Enhanced strength-ductility synergy achieved through twin boundary pinning in a bake-hardened Mgâ€“2Zn-0.5Ca alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 831, 142239.	5.6	14
36	A improved equation of state for Xe gas bubbles in Î³U-Mo fuels. Journal of Nuclear Materials, 2020, 530, 151961.	2.7	13

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37	Self-organized multigrain patterning with special grain boundaries produced by phase transformation cycling. Physical Review Materials, 2018, 2, .	2.4	13
38	Guided Self-Assembly of Nano-Precipitates into Mesocrystals. Scientific Reports, 2015, 5, 16530.	3.3	12
39	Formation of tetragonal gas bubble superlattice in bulk molybdenum under helium ion implantation. Scripta Materialia, 2018, 149, 26-30.	5.2	12
40	Deformation pathway and defect generation in crystals: a combined group theory and graph theory description. IUCrJ, 2019, 6, 96-104.	2.2	12
41	Ordering in liquid and its heredity impact on phase transformation of Mg-Al-Ca alloys. Journal of Magnesium and Alloys, 2023, 11, 2006-2017.	11.9	12
42	Enhanced twinning-induced plasticity effect by novel {315}Î±â€³/{332}Î² correlated deformation twins in a Ti-Nb alloy. International Journal of Plasticity, 2022, 148, 103132.	8.8	11
43	Non-conservative dynamics of lattice sites near a migrating interface in a diffusional phase transformation. Acta Materialia, 2017, 127, 481-490.	7.9	9
44	Ab initio theory of noble gas atoms in bcc transition metals. Physical Chemistry Chemical Physics, 2018, 20, 17048-17058.	2.8	9
45	Dissociated prismatic loop punching by bubble growth in FCC metals. Scientific Reports, 2021, 11, 12839.	3.3	8
46	A Provably Secure Signature Scheme based on Factoring and Discrete Logarithms. Applied Mathematics and Information Sciences, 2014, 8, 1553-1558.	0.5	8
47	Phase Transformation Graph and Transformation Pathway Engineering for Shape Memory Alloys. Shape Memory and Superelasticity, 2020, 6, 115-130.	2.2	7
48	Hidden pathway during fcc to bcc/bct transformations: Crystallographic origin of slip martensite in steels. Physical Review Materials, 2018, 2, .	2.4	7
49	Symmetry breaking during defect self-organization under irradiation. Materials Theory, 2020, 4, .	4.3	7
50	Thermal stability of helium bubble superlattice in Mo under TEM in-situ heating. Journal of Nuclear Materials, 2018, 505, 207-211.	2.7	6
51	An atomistic study of grain boundaries and surfaces in Î³U-Mo. Journal of Nuclear Materials, 2018, 507, 248-257.	2.7	6
52	Bifurcation and Pattern Symmetry Selection in Reaction-Diffusion Systems with Kinetic Anisotropy. Scientific Reports, 2019, 9, 7835.	3.3	6
53	Disordering of helium gas bubble superlattices in molybdenum under ion irradiation and thermal annealing. Journal of Nuclear Materials, 2020, 539, 152315.	2.7	6
54	A Cayley graph description of the symmetry breaking associated with deformation and structural phase transitions in metallic materials. Materialia, 2020, 9, 100588.	2.7	6

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55	Recent Advances in the Design of Novel Î²â€Titanium Alloys Using Integrated Theory, Computer Simulation, and Advanced Characterization. Advanced Engineering Materials, 2021, 23, 2100152.	3.5	6
56	Certificateâ€based verifiably encrypted RSA signatures. Transactions on Emerging Telecommunications Technologies, 2015, 26, 276-289.	3.9	5
57	Practical verifiably encrypted signatures based on discrete logarithms. Security and Communication Networks, 2016, 9, 5996-6003.	1.5	5
58	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
59	A Revisit to the Notation of Martensitic Crystallography. Crystals, 2018, 8, 349.	2.2	5
60	A generalized O-element approach for analyzing interface structures. Acta Materialia, 2019, 165, 508-519.	7.9	5
61	Practical verifiably encrypted signature based on Waters signatures. IET Information Security, 2015, 9, 185-193.	1.7	3
62	Defect dynamics in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si25.svg"><mml:mi>Î³</mml:mi></mml:math>-U, Mo, and their alloys. Journal of Nuclear Materials, 2021, 549, 152893.	2.7	3
63	Twinning path determined by broken symmetry: A revisit to deformation twinning in hexagonal close-packed titanium and zirconium. Physical Review Materials, 2020, 4, .	2.4	3
64	The effect of elastic anisotropy on the symmetry selection of irradiation-induced void superlattices in cubic metals. Computational Materials Science, 2022, 206, 111252.	3.0	3
65	Practical verifiably encrypted signatures without random oracles. Information Sciences, 2014, 278, 793-801.	6.9	2
66	Simulation study on exchange interaction and unique magnetization near ferromagnetic morphotropic phase boundary. Journal of Physics Condensed Matter, 2017, 29, 445802.	1.8	2
67	Regulation of Cathode Mass and Charge Transfer by Structural 3D Engineering for Protonic Ceramic Fuel Cell at 400ÂÂ°C (Adv. Funct. Mater. 33/2021). Advanced Functional Materials, 2021, 31, 2170244.	14.9	2
68	Certificate-based Fair Exchange Protocol of Schnorr Signatures in Chosen-key Model. Fundamenta Informaticae, 2015, 141, 95-114.	0.4	1
69	Defect-free plastic deformation through dimensionality reduction and self-annihilation of topological defects in crystalline solids. Physical Review Research, 2020, 2, .	3.6	1