

Yipeng Gao

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

69

papers

1,059

citations

20

h-index

30

g-index

72

ext. papers

1,343

ext. citations

5.8

avg. IF

4.86

L-index

| # | Paper | IF | Citations |
|----|--|------|-----------|
| 69 | Rapid dislocation-mediated solute repartitioning towards strain-aging hardening in a fine-grained dilute magnesium alloy. <i>Materials Research Letters</i> , 2022 , 10, 21-28 | 7.4 | 1 |
| 68 | Enhanced strength-ductility synergy achieved through twin boundary pinning in a bake-hardened Mg ₉₂ Zn-0.5Ca alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2022 , 831, 142239 | 5.3 | 2 |
| 67 | The effect of elastic anisotropy on the symmetry selection of irradiation-induced void superlattices in cubic metals. <i>Computational Materials Science</i> , 2022 , 206, 111252 | 3.2 | 0 |
| 66 | Enhanced superplasticity achieved by disclination-dislocation reactions in a fine-grained low-alloyed magnesium system. <i>International Journal of Plasticity</i> , 2022 , 154, 103300 | 7.6 | 0 |
| 65 | Enhanced twinning-induced plasticity effect by novel {315} _H /{332} _L correlated deformation twins in a Ti-Nb alloy. <i>International Journal of Plasticity</i> , 2021 , 148, 103132 | 7.6 | 2 |
| 64 | H-phase precipitation and its effects on martensitic transformation in NiTi-Hf high-temperature shape memory alloys. <i>Acta Materialia</i> , 2021 , 208, 116651 | 8.4 | 8 |
| 63 | Recent Advances in the Design of Novel Titanium Alloys Using Integrated Theory, Computer Simulation, and Advanced Characterization. <i>Advanced Engineering Materials</i> , 2021 , 23, 2100152 | 3.5 | 3 |
| 62 | Enhanced ductility of Mg ₉₂ Zn _{0.2} Zr alloy with dilute Ca addition achieved by activation of non-basal slip and twinning. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021 , 813, 141128 | 5.3 | 4 |
| 61 | Regulation of Cathode Mass and Charge Transfer by Structural 3D Engineering for Protonic Ceramic Fuel Cell at 400°C. <i>Advanced Functional Materials</i> , 2021 , 31, 2102907 | 15.6 | 4 |
| 60 | Defect dynamics in U, Mo, and their alloys. <i>Journal of Nuclear Materials</i> , 2021 , 549, 152893 | 3.3 | 1 |
| 59 | Dissociated prismatic loop punching by bubble growth in FCC metals. <i>Scientific Reports</i> , 2021 , 11, 12839 | 4.9 | 1 |
| 58 | Regulation of Cathode Mass and Charge Transfer by Structural 3D Engineering for Protonic Ceramic Fuel Cell at 400°C (Adv. Funct. Mater. 33/2021). <i>Advanced Functional Materials</i> , 2021 , 31, 2170244 | 15.6 | 2 |
| 57 | Determination of twinning path from broken symmetry: A revisit to deformation twinning in bcc metals. <i>Acta Materialia</i> , 2020 , 196, 280-294 | 8.4 | 12 |
| 56 | Phase Transformation Graph and Transformation Pathway Engineering for Shape Memory Alloys. <i>Shape Memory and Superelasticity</i> , 2020 , 6, 115-130 | 2.8 | 3 |
| 55 | Novel deformation twinning system in a cold rolled high-strength metastable- β Ti-5Al-5V-5Mo-3Cr-0.5Fe alloy. <i>Materialia</i> , 2020 , 9, 100614 | 3.2 | 10 |
| 54 | A Cayley graph description of the symmetry breaking associated with deformation and structural phase transitions in metallic materials. <i>Materialia</i> , 2020 , 9, 100588 | 3.2 | 3 |
| 53 | Twinning path determined by broken symmetry: A revisit to deformation twinning in hexagonal close-packed titanium and zirconium. <i>Physical Review Materials</i> , 2020 , 4, | 3.2 | 2 |

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| 52 | Defect-free plastic deformation through dimensionality reduction and self-annihilation of topological defects in crystalline solids. <i>Physical Review Research</i> , 2020 , 2, | 3.9 | 1 |
| 51 | Symmetry breaking during defect self-organization under irradiation. <i>Materials Theory</i> , 2020 , 4, | 2.2 | 4 |
| 50 | The role of nano-scaled structural non-uniformities on deformation twinning and stress-induced transformation in a cold rolled multifunctional Titanium alloy. <i>Scripta Materialia</i> , 2020 , 177, 181-185 | 5.6 | 24 |
| 49 | Shuffle-nanodomain regulated strain glass transition in Ti-24Nb-4Zr-8Sn alloy. <i>Acta Materialia</i> , 2020 , 186, 415-424 | 8.4 | 21 |
| 48 | A improved equation of state for Xe gas bubbles in U-Mo fuels. <i>Journal of Nuclear Materials</i> , 2020 , 530, 151961 | 3.3 | 3 |
| 47 | Linear-superelastic metals by controlled strain release via nanoscale concentration-gradient engineering. <i>Materials Today</i> , 2020 , 33, 17-23 | 21.8 | 12 |
| 46 | Intrinsic coupling between twinning plasticity and transformation plasticity in metastable β Ti-alloys: A symmetry and pathway analysis. <i>Acta Materialia</i> , 2020 , 196, 488-504 | 8.4 | 13 |
| 45 | Disordering of helium gas bubble superlattices in molybdenum under ion irradiation and thermal annealing. <i>Journal of Nuclear Materials</i> , 2020 , 539, 152315 | 3.3 | 4 |
| 44 | Making metals linear super-elastic with ultralow modulus and nearly zero hysteresis. <i>Materials Horizons</i> , 2019 , 6, 515-523 | 14.4 | 13 |
| 43 | Symmetry and pathway analyses of the twinning modes in NiTi shape memory alloys. <i>Materialia</i> , 2019 , 6, 100320 | 3.2 | 13 |
| 42 | Bifurcation and Pattern Symmetry Selection in Reaction-Diffusion Systems with Kinetic Anisotropy. <i>Scientific Reports</i> , 2019 , 9, 7835 | 4.9 | 3 |
| 41 | Deformation pathway and defect generation in crystals: a combined group theory and graph theory description. <i>IUCrJ</i> , 2019 , 6, 96-104 | 4.7 | 8 |
| 40 | A generalized O-element approach for analyzing interface structures. <i>Acta Materialia</i> , 2019 , 165, 508-518 | 8.4 | 4 |
| 39 | Formation of tetragonal gas bubble superlattice in bulk molybdenum under helium ion implantation. <i>Scripta Materialia</i> , 2018 , 149, 26-30 | 5.6 | 8 |
| 38 | Theoretical prediction and atomic kinetic Monte Carlo simulations of void superlattice self-organization under irradiation. <i>Scientific Reports</i> , 2018 , 8, 6629 | 4.9 | 20 |
| 37 | An atomistic study of grain boundaries and surfaces in U-Mo. <i>Journal of Nuclear Materials</i> , 2018 , 507, 248-257 | 3.3 | 5 |
| 36 | Grand-potential-based phase-field model for multiple phases, grains, and chemical components. <i>Physical Review E</i> , 2018 , 98, 023309 | 2.4 | 26 |
| 35 | Formation and self-organization of void superlattices under irradiation: A phase field study. <i>Materialia</i> , 2018 , 1, 78-88 | 3.2 | 27 |

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| 34 | Ab initio theory of noble gas atoms in bcc transition metals. <i>Physical Chemistry Chemical Physics</i> , 2018 , 20, 17048-17058 | 3.6 | 6 |
| 33 | Self-organized multigrain patterning with special grain boundaries produced by phase transformation cycling. <i>Physical Review Materials</i> , 2018 , 2, | 3.2 | 12 |
| 32 | Hidden pathway during fcc to bcc/bct transformations: Crystallographic origin of slip martensite in steels. <i>Physical Review Materials</i> , 2018 , 2, | 3.2 | 5 |
| 31 | A Revisit to the Notation of Martensitic Crystallography. <i>Crystals</i> , 2018 , 8, 349 | 2.3 | 4 |
| 30 | Thermal stability of helium bubble superlattice in Mo under TEM in-situ heating. <i>Journal of Nuclear Materials</i> , 2018 , 505, 207-211 | 3.3 | 3 |
| 29 | Non-conservative dynamics of lattice sites near a migrating interface in a diffusional phase transformation. <i>Acta Materialia</i> , 2017 , 127, 481-490 | 8.4 | 6 |
| 28 | A universal symmetry criterion for the design of high performance ferroic materials. <i>Acta Materialia</i> , 2017 , 127, 438-449 | 8.4 | 33 |
| 27 | Monte Carlo simulation of magnetic domain structure and magnetic properties near the morphotropic phase boundary. <i>Physical Chemistry Chemical Physics</i> , 2017 , 19, 7236-7244 | 3.6 | 4 |
| 26 | Taming martensitic transformation via concentration modulation at nanoscale. <i>Acta Materialia</i> , 2017 , 130, 196-207 | 8.4 | 31 |
| 25 | Mechanical behavior and microstructural analysis of NiTi-40Au shape memory alloys exhibiting work output above 400 °C. <i>Intermetallics</i> , 2017 , 86, 33-44 | 3.5 | 21 |
| 24 | An origin of functional fatigue of shape memory alloys. <i>Acta Materialia</i> , 2017 , 126, 389-400 | 8.4 | 56 |
| 23 | Simulation study on exchange interaction and unique magnetization near ferromagnetic morphotropic phase boundary. <i>Journal of Physics Condensed Matter</i> , 2017 , 29, 445802 | 1.8 | 1 |
| 22 | Crystallographic analysis and phase field simulation of transformation plasticity in a multifunctional FeTi alloy. <i>International Journal of Plasticity</i> , 2017 , 89, 110-129 | 7.6 | 24 |
| 21 | Effects of the austenitizing temperature on the mechanical properties of cold-rolled medium-Mn steel system. <i>Journal of Alloys and Compounds</i> , 2017 , 691, 51-59 | 5.7 | 30 |
| 20 | Group theory description of transformation pathway degeneracy in structural phase transformations. <i>Acta Materialia</i> , 2016 , 109, 353-363 | 8.4 | 45 |
| 19 | Practical verifiably encrypted signatures based on discrete logarithms. <i>Security and Communication Networks</i> , 2016 , 9, 5996-6003 | 1.9 | 4 |
| 18 | Defect strength and strain glass state in ferroelastic systems. <i>Journal of Alloys and Compounds</i> , 2016 , 661, 100-109 | 5.7 | 18 |
| 17 | Pattern formation during interfacial reaction in-between liquid Sn and Cu substrates – A simulation study. <i>Acta Materialia</i> , 2016 , 113, 245-258 | 8.4 | 14 |

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| 16 | Practical verifiably encrypted signature based on Waters signatures. <i>IET Information Security</i> , 2015 , 9, 185-193 | 1.4 | 2 |
| 15 | Phase-Field Simulation of Orowan Strengthening by Coherent Precipitate Plates in an Aluminum Alloy. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2015 , 46, 3287-3301 ³³ | 2.3 | 33 |
| 14 | Austenite grain refinement during load-biased thermal cycling of a Ni ₄₉ Ti _{50.1} shape memory alloy. <i>Acta Materialia</i> , 2015 , 91, 318-329 | 8.4 | 31 |
| 13 | Guided Self-Assembly of Nano-Precipitates into Mesocrystals. <i>Scientific Reports</i> , 2015 , 5, 16530 | 4.9 | 11 |
| 12 | Certificate-based verifiably encrypted RSA signatures. <i>Transactions on Emerging Telecommunications Technologies</i> , 2015 , 26, 276-289 | 1.9 | 2 |
| 11 | Certificate-based Fair Exchange Protocol of Schnorr Signatures in Chosen-key Model. <i>Fundamenta Informaticae</i> , 2015 , 141, 95-114 | 1 | |
| 10 | A simulation study of η precipitation on dislocations in an Mg ₉₂ rare earth alloy. <i>Acta Materialia</i> , 2014 , 77, 133-150 | 8.4 | 50 |
| 9 | Pattern formation during cubic to orthorhombic martensitic transformations in shape memory alloys. <i>Acta Materialia</i> , 2014 , 68, 93-105 | 8.4 | 33 |
| 8 | Practical verifiably encrypted signatures without random oracles. <i>Information Sciences</i> , 2014 , 278, 793-801 ⁷ | 8.1 | 2 |
| 7 | A Provably Secure Signature Scheme based on Factoring and Discrete Logarithms. <i>Applied Mathematics and Information Sciences</i> , 2014 , 8, 1553-1558 | 2.4 | 4 |
| 6 | A simulation study of the shape of η precipitates in Mg ₉₂ and Mg ₉₂ d alloys. <i>Acta Materialia</i> , 2013 , 61, 453-466 | 8.4 | 120 |
| 5 | Microstructure map for self-organized phase separation during film deposition. <i>Physical Review Letters</i> , 2012 , 109, 086101 | 7.4 | 42 |
| 4 | Simulation study of precipitation in an Mg ₉₂ d alloy. <i>Acta Materialia</i> , 2012 , 60, 4819-4832 | 8.4 | 74 |
| 3 | P-phase precipitation and its effect on martensitic transformation in (Ni,Pt)Ti shape memory alloys. <i>Acta Materialia</i> , 2012 , 60, 1514-1527 | 8.4 | 47 |
| 2 | Nano η/η composite precipitates in Alloy 718. <i>Applied Physics Letters</i> , 2012 , 100, 211913 | 3.4 | 24 |
| 1 | Correlated Nucleation of Precipitates in Magnesium Alloy WE54 2011 , 1-8 | | |