# Xiang-Dong Ding

List of Publications by Year
in descending order



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|---|---|---|---|
| 218 papers | 7,930 citations | 71004 43 h-index | 75989 78 g-index |
| 220 all docs | 220 docs citations | 220 times ranked | 7302 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Microstructure and yield phenomenon of an extruded Mg-Y-Cu alloy with LPSO phase. Journal of Rare Earths, 2023, 41, 454-461. | 2.5 | 10 |
| 2 | Temperature-field history dependence of the elastocaloric effect for a strain glass alloy. Journal of Materials Science and Technology, 2022, 103, 8-14. | 5.6 | 7 |
| 3 | Multiple Avalanche Processes in Acoustic Emission Spectroscopy: Multibranching of the Energyâˆ'Amplitude Scaling. Physica Status Solidi (B): Basic Research, 2022, 259, 2100465. | 0.7 | 11 |
| 4 | Ultrahigh carrier mobility contributes to remarkably enhanced thermoelectric performance in n-type PbSe. Energy and Environmental Science, 2022, 15, 346-355. | 15.6 | 45 |
| 5 | Probing the dynamic response of ferroelectric and ferroelastic materials by simultaneous detection of elastic and piezoelectric properties. Journal of Alloys and Compounds, 2022, 903, 163857. | 2.8 | 4 |
| 6 | Surface relaxation and initial surface corrosion of strained Mo(100) surface. Applied Surface Science, 2022, 586, 152648. | 3.1 | 3 |
| 7 | Quasiâ€Linear Superelasticity with Ultralow Modulus in Tensile Cyclic Deformed TiNi Strain Glass. Advanced Engineering Materials, 2022, 24, . | 1.6 | 3 |
| 8 | Van der Waals force-induced intralayer ferroelectric-to-antiferroelectric transition via interlayer sliding in bilayer group-IV monochalcogenides. Npj Computational Materials, 2022, 8, . | 3.5 | 20 |
| 9 | Internal friction in complex ferroelastic twin patterns. Acta Materialia, 2022, 228, 117787. | 3.8 | 11 |
| 10 | Low-fatigue and large room-temperature elastocaloric effect in a bulk Ti<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si16.svg"><mml:msub><mml:mrow /><mml:mrow><mml:mn>49.2</mml:mn></mml:mrow></mml:msub></mml:math>Ni<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si17.svg"><mml:msub><mml:mrow /><mml:mrow><mml:mn>40.8</mml:mn></mml:mrow></mml:msub></mml:math>Cu<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si18.svg"><mml:msub><mml:mrow /><mml: | 3.8 | 17 |
| 11 | Strain states and unique properties in cold-rolled TiNi shape memory alloys. Acta Materialia, 2022, 231, 117890. | 3.8 | 24 |
| 12 | Uniting tensile ductility with ultrahigh strength via composition undulation. Nature, 2022, 604, 273-279. | 13.7 | 80 |
| 13 | Molecular dynamics simulations of ultralow hysteretic behavior in super-elastic shape memory alloys. Acta Materialia, 2022, 232, 117973. | 3.8 | 4 |
| 14 | The interfacial adhesion of contacting pairs in van der Waals materials. Applied Surface Science, 2022, 598, 153739. | 3.1 | 3 |
| 15 | Mechanical properties and deformation mechanisms of a novel fine-grained Mg-Gd-Y-Ag-Zr-Ce alloy with high strength-ductility synergy. Journal of Materials Science and Technology, 2021, 66, 64-73. | 5.6 | 31 |
| 16 | Pseudoelasticity in twinned Î±-Fe nanowires under bending. Computational Materials Science, 2021, 188, 110128. | 1.4 | 6 |
| 17 | Determining Multiâ€Component Phase Diagrams with Desired Characteristics Using Active Learning. Advanced Science, 2021, 8, 2003165. | 5.6 | 23 |
| 18 | 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. | 3.3 | 3 |

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| 19 | Can experiment determine the stacking fault energy of metastable alloys?. Materials and Design, 2021, 199, 109396. | 3.3 | 51 |
| 20 | Tip-induced flexoelectricity, polar vortices, and magnetic moments in ferroelastic materials. Journal of Applied Physics, 2021, 129, . | 1.1 | 6 |
| 21 | Enhanced Energy-Storage Density by Reversible Domain Switching in Acceptor-Doped Ferroelectrics. Physical Review Applied, 2021, 15, . | 1.5 | 6 |
| 22 | Diverse electronic and magnetic properties of CrS2 enabling strain-controlled 2D lateral heterostructure spintronic devices. Npj Computational Materials, 2021, 7, . | 3.5 | 35 |
| 23 | Free electron to electride transition in dense liquid potassium. Nature Physics, 2021, 17, 955-960. | 6.5 | 15 |
| 24 | Anomalous dislocation core structure in shock compressed bcc high-entropy alloys. Acta Materialia, 2021, 209, 116801. | 3.8 | 42 |
| 25 | Twisting of a Pristine Î±-Fe Nanowire: From Wild Dislocation Avalanches to Mild Local Amorphization. Nanomaterials, 2021, 11, 1602. | 1.9 | 5 |
| 26 | Domain-knowledge-oriented data pre-processing and machine learning of corrosion-resistant Î³-U alloys with a small database. Computational Materials Science, 2021, 194, 110472. | 1.4 | 6 |
| 27 | Anomalous thermophysical properties and electride transition in fcc potassium. Physical Review B, 2021, 104, . | 1.1 | 0 |
| 28 | Boson-peak-like anomaly caused by transverse phonon softening in strain glass. Nature Communications, 2021, 12, 5755. | 5.8 | 18 |
| 29 | Learning from superelasticity data to search for Ti-Ni alloys with large elastocaloric effect. Acta Materialia, 2021, 218, 117200. | 3.8 | 20 |
| 30 | Improving radiation-tolerance of bcc multi-principal element alloys by tailoring compositional heterogeneities. Journal of Nuclear Materials, 2021, 555, 153140. | 1.3 | 10 |
| 31 | Real-time monitoring dislocations, martensitic transformations and detwinning in stainless steel: Statistical analysis and machine learning. Journal of Materials Science and Technology, 2021, 92, 31-39. | 5.6 | 16 |
| 32 | Efficient estimation of material property curves and surfaces via active learning. Physical Review Materials, 2021, 5, . | 0.9 | 17 |
| 33 | Rationally optimized carrier effective mass and carrier density leads to high average <i>ZT</i> value in n-type PbSe. Journal of Materials Chemistry A, 2021, 9, 23011-23018. | 5.2 | 15 |
| 34 | Rippling Ferroic Phase Transition and Domain Switching In 2D Materials. Advanced Materials, 2021, 33, e2103469. | 11.1 | 14 |
| 35 | Large recoverable strain with suitable transition temperature in TiNb-based multicomponent shape memory alloys: First-principles calculations. Acta Materialia, 2021, 221, 117366. | 3.8 | 9 |
| 36 | Piezoelectricity in nominally centrosymmetric phases. Physical Review Research, 2021, 3, . | 1.3 | 19 |

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| 37 | Mild fluctuations in ferroelastic domain switching. Physical Review B, 2021, 104, . | 1.1 | 7 |
| 38 | Ab initio study of the elastic properties of body-centered cubic Ti-Mo-based alloys. Computational Materials Science, 2020, 172, 109320. | 1.4 | 12 |
| 39 | Generalized Stacking Fault Energy of Al-Doped CrMnFeCoNi High-Entropy Alloy. Nanomaterials, 2020, 10, 59. | 1.9 | 37 |
| 40 | Order-parameter coupling and strain relaxation behavior of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi mathvariant="normal">Ti</mml:mi><mml:mn>50</mml:mn></mml:msub><mml:msub><mml:mi mathvariant="normal">Pd</mml:mi><mml:mrow><mml:mn>50</mml:mn><mml:mo>â^'</mml:mo><mml:mi>x</mml:mi></mml:mrow> mathvariant="normal">Cr</mml:mi><mml:mi>x</mml:mi></mml:msub></mml:mrow></mml:math> martensites. Physical Review B, 2020, 102, . | 1.1 | 3 |
| 41 | Periodic Wrinkleâ€Patterned Singleâ€Crystalline Ferroelectric Oxide Membranes with Enhanced Piezoelectricity. Advanced Materials, 2020, 32, e2004477. | 11.1 | 47 |
| 42 | Anisotropic avalanche dynamics during ferroelectric switching in BaTiO3 and 0.7Pb(Mg2/3Nb1/3)O3â€"0.3PbTiO3. Applied Physics Letters, 2020, 117, . | 1.5 | 7 |
| 43 | Current vortices and magnetic fields driven by moving polar twin boundaries in ferroelastic materials. Npj Computational Materials, 2020, 6, . | 3.5 | 11 |
| 44 | Knowledge-Based Descriptor for the Compositional Dependence of the Phase Transition in BaTiO<sub>3</sub>-Based Ferroelectrics. ACS Applied Materials & Interfaces, 2020, 12, 44970-44980. | 4.0 | 7 |
| 45 | Charge doping induced reversible multistep structural phase transitions and electromechanical actuation in two-dimensional 1Tâ€²-MoS<sub>2</sub>. Nanoscale, 2020, 12, 12541-12550. | 2.8 | 19 |
| 46 | Revealing the atomistic mechanisms of strain glass transition in ferroelastics. Acta Materialia, 2020, 194, 134-143. | 3.8 | 14 |
| 47 | Thermodynamic, Structural, and Piezoelectric Properties of Adatom-Doped Phosphorene and Its Applications in Smart Surfaces. Physical Review Applied, 2020, 13, . | 1.5 | 4 |
| 48 | Twisting of pre-twinned Î±-Fe nanowires: from mild to wild avalanche dynamics. Acta Materialia, 2020, 195, 50-58. | 3.8 | 19 |
| 49 | Lead-free molecular ferroelectric [N,N-dimethylimidazole]3Bi2I9 with narrow bandgap. Materials and Design, 2020, 193, 108868. | 3.3 | 8 |
| 50 | Statistical analysis of emission, interaction and annihilation of phonons by kink motion in ferroelastic materials. Applied Physics Letters, 2020, 116, 102902. | 1.5 | 10 |
| 51 | Avalanches and mixing behavior of porous 316L stainless steel under tension. Applied Physics Letters, 2020, 116, 111901. | 1.5 | 9 |
| 52 | Unusual activated processes controlling dislocation motion in body-centered-cubic high-entropy alloys. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 16199-16206. | 3.3 | 117 |
| 53 | Role of uncertainty estimation in accelerating materials development via active learning. Journal of Applied Physics, 2020, 128, . | 1.1 | 24 |
| 54 | Machine learning assisted multi-objective optimization for materials processing parameters: A case study in Mg alloy. Journal of Alloys and Compounds, 2020, 844, 156159. | 2.8 | 41 |

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| 55 | Bi-directional prediction of structural characteristics and effective thermal conductivities of composite fuels through learning from finite element simulation results. Materials and Design, 2020, 189, 108483. | 3.3 | 14 |
| 56 | Nucleation mechanism for <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>hcp</mml:mi><mml:mo>â†'</mml:mo><mml:mi>bcc</m phase transformation in shock-compressed Zr. Physical Review B, 2020, 101, . | 1.1 | 20 |
| 57 | Fine structures of acoustic emission spectra: How to separate dislocation movements and entanglements in 316L stainless steel. Applied Physics Letters, 2020, 117, . | 1.5 | 16 |
| 58 | Enhanced piezoelectricity in twinned ferroelastics with nanocavities. Physical Review Materials, 2020, 4, . | 0.9 | 10 |
| 59 | Synergistic Effects among the Structure, Martensite Transformation and Shear Band in a Shape Memory Alloy-Metallic Glass Composite. Applied Composite Materials, 2019, 26, 455-467. | 1.3 | 6 |
| 60 | Avalanche dynamics of ferroelectric phase transitions in BaTiO3 and 0.7Pb(Mg2âˆ•3Nb1âˆ•3)O3-0.3PbTiO3 single crystals. Applied Physics Letters, 2019, 115, . | 1.5 | 9 |
| 61 | The interaction between vacancies and twin walls, junctions, and kinks, and their mechanical properties in ferroelastic materials. Acta Materialia, 2019, 178, 26-35. | 3.8 | 23 |
| 62 | Percolated Strain Networks and Universal Scaling Properties of Strain Glasses. Physical Review Letters, 2019, 123, 015701. | 2.9 | 18 |
| 63 | Accelerated Search for BaTiO<sub>3</sub>â€Based Ceramics with Large Energy Storage at Low Fields Using Machine Learning and Experimental Design. Advanced Science, 2019, 6, 1901395. | 5.6 | 44 |
| 64 | Ferroelectric switching in ferroelastic materials with rough surfaces. Scientific Reports, 2019, 9, 15834. | 1.6 | 20 |
| 65 | Super-elastic ferroelectric single-crystal membrane with continuous electric dipole rotation. Science, 2019, 366, 475-479. | 6.0 | 272 |
| 66 | Elastic properties of Co-base alloys: An ab initio study. Computational Materials Science, 2019, 170, 109150. | 1.4 | 0 |
| 67 | Plastic deformation behavior and microscopic mechanism of metastable Ti-10V-2Fe-3Al alloy single crystal pillars orientated to <011>Î² in submicron scales Part I: Double size effects and martensitic transformation prediction. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 743, 798-803. | 2.6 | 11 |
| 68 | Doping effects of point defects in shape memory alloys. Acta Materialia, 2019, 176, 177-188. | 3.8 | 13 |
| 69 | Piezoelectricity and electrostriction in ferroelastic materials with polar twin boundaries and domain junctions. Applied Physics Letters, 2019, 114, . | 1.5 | 21 |
| 70 | Rotatable precipitates change the scale-free to scale dependent statistics in compressed Ti nano-pillars. Scientific Reports, 2019, 9, 3778. | 1.6 | 13 |
| 71 | Acoustic Emission from Porous Collapse and Moving Dislocations in Granular Mg-Ho Alloys under Compression and Tension. Scientific Reports, 2019, 9, 1330. | 1.6 | 29 |
| 72 | Commensurate-incommensurate phase transition of dense potassium simulated by machine-learned interatomic potential. Physical Review B, 2019, 100, . | 1.1 | 8 |

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| 73 | The Search for BaTiO<sub>3</sub>-Based Piezoelectrics With Large Piezoelectric Coefficient Using Machine Learning. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2019, 66, 394-401. | 1.7 | 23 |
| 74 | hcp â†' Ï‰ phase transition mechanisms in shocked zirconium: A machine learning based atomic simulation study. Acta Materialia, 2019, 162, 126-135. | 3.8 | 17 |
| 75 | Ferroelectric switching and scale invariant avalanches in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>BaTi</mml:mi><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:mrow></mml:math>. Physical Review Materials, 2019, 3, . | 0.9 | 52 |
| 76 | Electrically driven ferroelastic domain walls, domain wall interactions, and moving needle domains. Physical Review Materials, 2019, 3, . | 0.9 | 21 |
| 77 | Insight into the Effects of Reinforcement Shape on Achieving Continuous Martensite Transformation in Phase Transforming Matrix Composites. Applied Composite Materials, 2018, 25, 1369-1384. | 1.3 | 2 |
| 78 | Separation selectivity and structural flexibility of graphene-like 2-dimensional membranes. Physical Chemistry Chemical Physics, 2018, 20, 18192-18199. | 1.3 | 9 |
| 79 | Damping and transformation behaviors of Ti 50 (Pd 50â^'x Cr x ) shape memory alloys with x ranging from 4.0 to 5.0. Current Applied Physics, 2018, 18, 847-852. | 1.1 | 3 |
| 80 | Accelerated Discovery of Large Electrostrains in BaTiO<sub>3</sub>â€Based Piezoelectrics Using Active Learning. Advanced Materials, 2018, 30, 1702884. | 11.1 | 254 |
| 81 | Glassy behavior and dynamic tweed in defect-free multiferroics. Applied Physics Letters, 2018, 112, . | 1.5 | 10 |
| 82 | Detwinning through migration of twin boundaries in nanotwinned Cu films under <i>in situ</i> ion irradiation. Science and Technology of Advanced Materials, 2018, 19, 212-220. | 2.8 | 12 |
| 83 | Immobile defects in ferroelastic walls: Wall nucleation at defect sites. Applied Physics Letters, 2018, 112, . | 1.5 | 8 |
| 84 | Ferromagnetism of 1Tâ€²-MoS<sub>2</sub> Nanoribbons Stabilized by Edge Reconstruction and Its Periodic Variation on Nanoribbons Width. Journal of the American Chemical Society, 2018, 140, 16206-16212. | 6.6 | 39 |
| 85 | Tunable auxetic properties in group-IV monochalcogenide monolayers. Physical Review B, 2018, 98, . | 1.1 | 42 |
| 86 | Developing an interatomic potential for martensitic phase transformations in zirconium by machine learning. Npj Computational Materials, 2018, 4, . | 3.5 | 79 |
| 87 | Elastic properties of Al CrMnFeCoNi (0 â‰ x â‰ 5) high-entropy alloys from ab initio theory. Acta Materialia, 2018, 155, 12-22. | 3.8 | 77 |
| 88 | Mechanical relaxation and freezing in the room temperature strain glass alloy Ti50(Pd40Cr10). Journal of Physics Condensed Matter, 2018, 30, 345402. | 0.7 | 2 |
| 89 | Dissociative adsorption of O<sub>2</sub> on strained Pt(111). Physical Chemistry Chemical Physics, 2018, 20, 17927-17933. | 1.3 | 12 |
| 90 | Emergent large mechanical damping in ferroelastic-martensitic systems driven by disorder. Physical Review Materials, 2018, 2, . | 0.9 | 0 |

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| 91 | An informatics approach to transformation temperatures of NiTi-based shape memory alloys. Acta Materialia, 2017, 125, 532-541. | 3.8 | 168 |
| 92 | Computational Design of Porous Graphenes for Alkane Isomer Separation. Journal of Physical Chemistry C, 2017, 121, 10063-10070. | 1.5 | 17 |
| 93 | Origin of high strength, low modulus superelasticity in nanowire-shape memory alloy composites. Scientific Reports, 2017, 7, 46360. | 1.6 | 12 |
| 94 | Ultrafast Switching in Avalancheâ€Driven Ferroelectrics by Supersonic Kink Movements. Advanced Functional Materials, 2017, 27, 1700367. | 7.8 | 32 |
| 95 | Role of cadmium on the phase transitions and electrical properties of BaTiO3 ceramics. Ceramics International, 2017, 43, 1114-1120. | 2.3 | 5 |
| 96 | Large recovery of six-fold twinned nanowires of Î±-Fe. Acta Materialia, 2017, 125, 296-302. | 3.8 | 13 |
| 97 | Phase selection rule for Al-doped CrMnFeCoNi high-entropy alloys from first-principles. Acta Materialia, 2017, 140, 366-374. | 3.8 | 69 |
| 98 | Statistics of twinning in strained ferroelastics. Journal of Physics Condensed Matter, 2017, 29, 394002. | 0.7 | 2 |
| 99 | The Edge Stresses and Phase Transitions for Magnetic BN Zigzag Nanoribbons. Scientific Reports, 2017, 7, 7855. | 1.6 | 8 |
| 100 | Synthesizing InxGa1â^'xAs using molten In and GaAs by the sessile drop method at 400â€"600 Â°C. AIP Advances, 2017, 7, 065003. | 0.6 | 0 |
| 101 | Material descriptors for morphotropic phase boundary curvature in lead-free piezoelectrics. Applied Physics Letters, 2017, 111, 032907. | 1.5 | 14 |
| 102 | Ferroelectric, elastic, piezoelectric, and dielectric properties of Ba(Ti0.7Zr0.3)O3-<i>x</i>(Ba0.82Ca0.18)TiO3 Pb-free ceramics. Journal of Applied Physics, 2017, 122, . | 1.1 | 16 |
| 103 | Comparison of interface structure of BCC metallic (Fe, V and Nb) films on MgO (100) substrate. Applied Surface Science, 2017, 410, 585-592. | 3.1 | 12 |
| 104 | Enhanced high-rate performance of ball-milled MmNi3.55Co0.75Mn0.4Al0.3 hydrogen storage alloys with graphene nanoplatelets. Journal of Alloys and Compounds, 2017, 693, 126-131. | 2.8 | 26 |
| 105 | Effects of In0.82Ga0.18As/InP Double Buffers Design on the Microstructure of the In0.82G0.18As/InP Heterostructure. Crystals, 2017, 7, 155. | 1.0 | 1 |
| 106 | Novel B19â€² strain glass with large recoverable strain. Physical Review Materials, 2017, 1, . | 0.9 | 20 |
| 107 | Ferroelastic shear bands in Pb3(PO4)2. Applied Physics Letters, 2016, 108, . | 1.5 | 9 |
| 108 | Ferroelastic Domain Boundary-Based Multiferroicity. Crystals, 2016, 6, 163. | 1.0 | 8 |

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| 109 | Parabolic temporal profiles of non-spanning avalanches and their importance for ferroic switching. Applied Physics Letters, 2016, 108, . | 1.5 | 16 |
| 110 | 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, . | 1.1 | 11 |
| 111 | Design of High Temperature Ti-Pd-Cr Shape Memory Alloys with Small Thermal Hysteresis. Scientific Reports, 2016, 6, 28244. | 1.6 | 27 |
| 112 | Metastable phase transformation and hcp-<i> <b>Ï‰</b> </i> transformation pathways in Ti and Zr under high hydrostatic pressures. Applied Physics Letters, 2016, 109, . | 1.5 | 16 |
| 113 | Electric Field Induced Reversible Phase Transition in Li Doped Phosphorene: Shape Memory Effect and Superelasticity. Journal of the American Chemical Society, 2016, 138, 4772-4778. | 6.6 | 26 |
| 114 | Flexoelectricity and the polarity of complex ferroelastic twin patterns. Physical Review B, 2016, 94, . | 1.1 | 62 |
| 115 | Dislocation induced strain glass in Ti50Ni45Fe5 alloy. Acta Materialia, 2016, 120, 130-137. | 3.8 | 51 |
| 116 | The evolving quality of frictional contact with graphene. Nature, 2016, 539, 541-545. | 13.7 | 389 |
| 117 | What determines the interfacial configuration of Nb/Al2O3 and Nb/MgO interface. Scientific Reports, 2016, 6, 33931. | 1.6 | 25 |
| 118 | Twin boundary activated Î±Âât'ÂÏ‰ phase transformation in titanium under shock compression. Acta Materialia, 2016, 115, 1-9. | 3.8 | 28 |
| 119 | Interface Driven Pseudoâ€Elasticity in aâ€Fe Nanowires. Advanced Functional Materials, 2016, 26, 760-767. | 7.8 | 23 |
| 120 | Breakdown of Shape Memory Effect in Bent Cuâ€"Alâ€"Ni Nanopillars: When Twin Boundaries Become Stacking Faults. Nano Letters, 2016, 16, 194-198. | 4.5 | 11 |
| 121 | Plastic deformation behavior during unloading in compressive cyclic test of nanocrystalline copper. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 651, 999-1009. | 2.6 | 26 |
| 122 | Origin of low thermal hysteresis in shape memory alloy ultrathin films. Acta Materialia, 2016, 103, 407-415. | 3.8 | 13 |
| 123 | Functional Topologies in (Multi-) Ferroics: The Ferroelastic Template. Springer Series in Materials Science, 2016, , 83-101. | 0.4 | 3 |
| 124 | Glass-ferroic composite caused by the crystallization of ferroic glass. Physical Review B, 2015, 92, . | 1.1 | 12 |
| 125 | Detection of Yield Point Behavior by Acoustic Emission in thin Films. Materials Today: Proceedings, 2015, 2, S535-S539. | 0.9 | 0 |
| 126 | Heat transport by phonons and the generation of heat by fast phonon processes in ferroelastic materials. AIP Advances, 2015, 5, . | 0.6 | 12 |

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| 127 | Fe-vacancy ordering in superconducting K<sub>1â^'<i>x</i></sub>Fe<sub>2â^'<i>y</i></sub>Se<sub>2</sub>: first-principles calculations and Monte Carlo simulations. Superconductor Science and Technology, 2015, 28, 095004. | 1.8 | 0 |
| 128 | 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. | 2.9 | 48 |
| 129 | The interaction of dislocations and hydrogen-vacancy complexes and its importance for deformation-induced proto nano-voids formation in Î±-Fe. International Journal of Plasticity, 2015, 74, 175-191. | 4.1 | 144 |
| 130 | Ambient-temperature high damping capacity in TiPd-based martensitic alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 632, 110-119. | 2.6 | 12 |
| 131 | Polar twin boundaries and nonconventional ferroelectric switching. Applied Physics Letters, 2015, 106, . | 1.5 | 20 |
| 132 | Phase transitions and phase diagram of Ba(Zr<sub>0.2</sub>Ti<sub>0.8</sub>)O<sub>3</sub>-<i>x</i>(Ba<sub>0.7</sub>Ca<sub>0.3</sub>)TiO<sub>3</sub> Pb-free system by anelastic measurement. Journal of Applied Physics, 2015, 117, 124107. | 1.1 | 35 |
| 133 | Uniaxial stress-driven coupled grain boundary motion in hexagonal close-packed metals: A molecular dynamics study. Acta Materialia, 2015, 82, 295-303. | 3.8 | 28 |
| 134 | Simulating acoustic emission: The noise of collapsing domains. Physical Review B, 2014, 90, . | 1.1 | 42 |
| 135 | Flicker vortex structures in multiferroic materials. Applied Physics Letters, 2014, 105, . | 1.5 | 21 |
| 136 | Strain rate dependence of twinning avalanches at high speed impact. Applied Physics Letters, 2014, 104, . | 1.5 | 23 |
| 137 | High temperature strain glass transition in defect doped Tiâ€"Pd martensitic alloys. Physica Status Solidi (B): Basic Research, 2014, 251, 2027-2033. | 0.7 | 23 |
| 138 | Domain glass. Physica Status Solidi (B): Basic Research, 2014, 251, 2061-2066. | 0.7 | 34 |
| 139 | Phase transformations in Titanium: Anisotropic deformation of Ï‰ phase. Journal of Physics: Conference Series, 2014, 500, 112042. | 0.3 | 4 |
| 140 | Thermal and athermal crackling noise in ferroelastic nanostructures. Journal of Physics Condensed Matter, 2014, 26, 142201. | 0.7 | 22 |
| 141 | Superelasticity of slim hysteresis over a wide temperature range by nanodomains of martensite. Acta Materialia, 2014, 66, 349-359. | 3.8 | 81 |
| 142 | Anisotropic shock response of titanium: Reorientation and transformation mechanisms. Acta Materialia, 2014, 65, 10-18. | 3.8 | 57 |
| 143 | The kinetics of the Ï‰ to Î± phase transformation in Zr, Ti: Analysis of data from shock-recovered samples and atomistic simulations. Acta Materialia, 2014, 77, 191-199. | 3.8 | 40 |
| 144 | Direct observation of hierarchical nucleation of martensite and size-dependent superelasticity in shape memory alloys. Nanoscale, 2014, 6, 2067. | 2.8 | 16 |

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| 145 | The transitions from glassy state to longâ€rangeâ€ordered state in ferroic glasses. Physica Status Solidi (B): Basic Research, 2014, 251, 2019-2026. | 0.7 | 4 |
| 146 | Size-dependent of compression yield strength and deformation mechanism in titanium single-crystal nanopillars orientated [0001] and [112ì„0]. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 615, 22-28. | 2.6 | 24 |
| 147 | Collective nature of plasticity in mediating phase transformation under shock compression. Physical Review B, 2014, 89, . | 1.1 | 40 |
| 148 | On glassy behavior in ferroics. Physica Status Solidi (B): Basic Research, 2014, 251, 2003-2009. | 0.7 | 4 |
| 149 | Diffuse scattering as an indicator for martensitic variant selection. Acta Materialia, 2014, 66, 69-78. | 3.8 | 9 |
| 150 | Adaptive ferroelectric state at morphotropic phase boundary: Coexisting tetragonal and rhombohedral phases. Acta Materialia, 2014, 71, 176-184. | 3.8 | 77 |
| 151 | Interface structure of Nb films on single crystal MgO(100) and MgO(111) substrates. Acta Materialia, 2014, 64, 100-112. | 3.8 | 19 |
| 152 | Direct Evidence for Local Symmetry Breaking during a Strain Glass Transition. Physical Review Letters, 2014, 112, 025701. | 2.9 | 56 |
| 153 | Phase transformation behavior in titanium single-crystal nanopillars under [0 0 0 1] orientation tension: A molecular dynamics simulation. Computational Materials Science, 2014, 92, 8-12. | 1.4 | 70 |
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