

Hong-Xiang Zong

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/2461210/publications.pdf>

Version: 2024-02-01

42
papers

965
citations

471509

17
h-index

454955

30
g-index

44
all docs

44
docs citations

44
times ranked

940
citing authors

#	ARTICLE	IF	CITATIONS
1	Unusual activated processes controlling dislocation motion in body-centered-cubic high-entropy alloys. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 16199-16206.	7.1	117
2	Identifying the Activity Origin of a Cobalt Single-Atom Catalyst for Hydrogen Evolution Using Supervised Learning. <i>Advanced Functional Materials</i> , 2021, 31, 2100547.	14.9	93
3	Uniting tensile ductility with ultrahigh strength via composition undulation. <i>Nature</i> , 2022, 604, 273-279.	27.8	80
4	Developing an interatomic potential for martensitic phase transformations in zirconium by machine learning. <i>Npj Computational Materials</i> , 2018, 4, .	8.7	79
5	Anisotropic shock response of titanium: Reorientation and transformation mechanisms. <i>Acta Materialia</i> , 2014, 65, 10-18.	7.9	57
6	Nanoscale bubble domains with polar topologies in bulk ferroelectrics. <i>Nature Communications</i> , 2021, 12, 3632.	12.8	57
7	Enhancement of strength-ductility balance of heavy Ti and Al alloyed FeCoNiCr high-entropy alloys via boron doping. <i>Journal of Materials Science and Technology</i> , 2021, 75, 154-163.	10.7	42
8	Anomalous dislocation core structure in shock compressed bcc high-entropy alloys. <i>Acta Materialia</i> , 2021, 209, 116801.	7.9	42
9	The kinetics of the β to α phase transformation in Zr, Ti: Analysis of data from shock-recovered samples and atomistic simulations. <i>Acta Materialia</i> , 2014, 77, 191-199.	7.9	40
10	Collective nature of plasticity in mediating phase transformation under shock compression. <i>Physical Review B</i> , 2014, 89, .	3.2	40
11	Uniaxial stress-driven coupled grain boundary motion in hexagonal close-packed metals: A molecular dynamics study. <i>Acta Materialia</i> , 2015, 82, 295-303.	7.9	28
12	Twin boundary activated β to α phase transformation in titanium under shock compression. <i>Acta Materialia</i> , 2016, 115, 1-9.	7.9	28
13	Nucleation mechanism for β to α phase transformation in shock-compressed Zr. <i>Physical Review B</i> , 2020, 101, .	7.9	20
14	Alpha \leftrightarrow omega and omega \leftrightarrow alpha phase transformations in zirconium under hydrostatic pressure: A 3D mesoscale study. <i>Acta Materialia</i> , 2016, 102, 97-107.	7.9	19
15	On the chain-melted phase of matter. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 10297-10302.	7.1	19
16	Percolated Strain Networks and Universal Scaling Properties of Strain Glasses. <i>Physical Review Letters</i> , 2019, 123, 015701.	7.8	18
17	Boson-peak-like anomaly caused by transverse phonon softening in strain glass. <i>Nature Communications</i> , 2021, 12, 5755.	12.8	18
18	Seamless joining of silicon carbide ceramics through an sacrificial interlayer of Dy ₃ Si ₂ C ₂ . <i>Journal of the European Ceramic Society</i> , 2019, 39, 5457-5462.	5.7	17

#	ARTICLE	IF	CITATIONS
19	hcp β' phase transition mechanisms in shocked zirconium: A machine learning based atomic simulation study. <i>Acta Materialia</i> , 2019, 162, 126-135.	7.9	17
20	Free electron to electride transition in dense liquid potassium. <i>Nature Physics</i> , 2021, 17, 955-960.	16.7	15
21	Rippling Ferroic Phase Transition and Domain Switching In 2D Materials. <i>Advanced Materials</i> , 2021, 33, e2103469.	21.0	14
22	Origin of low thermal hysteresis in shape memory alloy ultrathin films. <i>Acta Materialia</i> , 2016, 103, 407-415.	7.9	13
23	Origin of high strength, low modulus superelasticity in nanowire-shape memory alloy composites. <i>Scientific Reports</i> , 2017, 7, 46360.	3.3	12
24	Improving radiation-tolerance of bcc multi-principal element alloys by tailoring compositional heterogeneities. <i>Journal of Nuclear Materials</i> , 2021, 555, 153140.	2.7	10
25	Diffuse scattering as an indicator for martensitic variant selection. <i>Acta Materialia</i> , 2014, 66, 69-78.	7.9	9
26	Unveiling the grain boundary-related effects on the incipient plasticity and dislocation behavior in nanocrystalline CrCoNi medium-entropy alloy. <i>Journal of Materials Science and Technology</i> , 2022, 127, 98-107.	10.7	9
27	Commensurate-incommensurate phase transition of dense potassium simulated by machine-learned interatomic potential. <i>Physical Review B</i> , 2019, 100, .	3.2	8
28	Hydrogenation Induced Carrier Mobility Polarity Reversal in Monolayer AlN. <i>Physica Status Solidi - Rapid Research Letters</i> , 2017, 11, 1700260.	2.4	6
29	Dynamics Studies of Nitrogen Interstitial in GaN from Ab Initio Calculations. <i>Materials</i> , 2020, 13, 3627.	2.9	6
30	Long-time behavior of the β' transition in shocked zirconium: Interplay of nucleation and plastic deformation. <i>Acta Materialia</i> , 2016, 108, 138-142.	7.9	5
31	Understanding high pressure molecular hydrogen with a hierarchical machine-learned potential. <i>Nature Communications</i> , 2020, 11, 5014.	12.8	5
32	Phase transformations in Titanium: Anisotropic deformation of β' phase. <i>Journal of Physics: Conference Series</i> , 2014, 500, 112042.	0.4	4
33	On glassy behavior in ferroics. <i>Physica Status Solidi (B): Basic Research</i> , 2014, 251, 2003-2009.	1.5	4
34	Molecular dynamics simulations of ultralow hysteretic behavior in super-elastic shape memory alloys. <i>Acta Materialia</i> , 2022, 232, 117973.	7.9	4
35	C-chain-doping induced band-state transition in armchair AlN nanoribbons. <i>Physica Status Solidi (B): Basic Research</i> , 2016, 253, 1643-1648.	1.5	2
36	Insight into the Effects of Reinforcement Shape on Achieving Continuous Martensite Transformation in Phase Transforming Matrix Composites. <i>Applied Composite Materials</i> , 2018, 25, 1369-1384.	2.5	2

#	ARTICLE	IF	CITATIONS
37	Observation of Fundamental Mechanisms in Compression-Induced Phase Transformations Using Ultrafast X-ray Diffraction. <i>Jom</i> , 2021, 73, 2185-2193.	1.9	2
38	Two-state model for critical points and the negative slope of the melting curve. <i>Physical Review B</i> , 2021, 104, .	3.2	2
39	Adjustable localized states in perfect and single C-chain doped zigzag AlN nanoribbons. <i>Physica Status Solidi (B): Basic Research</i> , 2017, 254, 1600489.	1.5	1
40	Publisher's Note: Collective nature of plasticity in mediating phase transformation under shock compression [<i>Phys. Rev. B</i> 89, 220101(R) (2014)]. <i>Physical Review B</i> , 2014, 90, .	3.2	0
41	C-chain-doping induced band-state transition in armchair AlN nanoribbons (<i>Phys. Status Solidi B</i>) Tj ETQq1 1 0.784314 rgBT /Overlock 1	1.5	0
42	Anomalous thermophysical properties and electricle transition in fcc potassium. <i>Physical Review B</i> , 2021, 104, .	3.2	0