

Jianzhong Zhang

List of Publications by Year in Descending Order

Source: <https://exaly.com/author-pdf/242995/jianzhong-zhang-publications-by-year.pdf>

Version: 2024-04-25

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

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

110
papers

3,476
citations

34
h-index

54
g-index

117
ext. papers

3,796
ext. citations

5
avg, IF

4.92
L-index

#	Paper	IF	Citations
110	Time-resolved phase and compositional homogenization of segregated uranium-niobium alloys above the monotectoid temperature. <i>Journal of Nuclear Materials</i> , 2022 , 564, 153673	3.3	0
109	Compressibility and thermoelasticity of CrN. <i>High Pressure Research</i> , 2020 , 40, 423-433	1.6	
108	Strain stiffening, high load-invariant hardness, and electronic anomalies of boron phosphide under pressure. <i>Physical Review B</i> , 2020 , 101,	3.3	14
107	Neutron diffraction study of crystal structure and temperature driven molecular reorientation in solid H ₂ O. <i>AIP Advances</i> , 2020 , 10, 045301	1.5	2
106	Structural disorder, sublattice melting, and thermo-elastic properties of anti-perovskite Li ₃ OBr under high pressure and temperature. <i>Applied Physics Letters</i> , 2020 , 117, 081904	3.4	3
105	The lattice parameter vs composition relationship of the body centered cubic uranium-niobium alloys. <i>Journal of Nuclear Materials</i> , 2020 , 542, 152493	3.3	5
104	Equation of state and phase evolution of U-7.7Nb with implications for the understanding of dynamic behavior of U-Nb alloys. <i>Applied Physics Letters</i> , 2019 , 114, 221901	3.4	5
103	In Situ Time-Resolved Phase Evolution and Phase Transformations in U-6 Wt Pct Nb. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2019 , 50, 2619-2628	2.3	9
102	Phase Stability and Compressibility of 3R-MoN at High Pressure. <i>Scientific Reports</i> , 2019 , 9, 10524	4.9	3
101	Equation of state and strain-induced stabilization of ϵ phase stabilized plutonium alloys. <i>Journal of Nuclear Materials</i> , 2019 , 524, 54-59	3.3	1
100	Line profile analysis of dislocation densities of the ϵ phase ²³⁹ Pu-2.0 at%Ga alloy using neutron diffraction. <i>Journal of Nuclear Materials</i> , 2019 , 517, 152-156	3.3	2
99	Equation of state, phase stability, and phase transformations of uranium-6 wt. % niobium under high pressure and temperature. <i>Journal of Applied Physics</i> , 2018 , 123, 175103	2.5	6
98	Interactive visualization of multi-data-set Rietveld analyses using. <i>Journal of Applied Crystallography</i> , 2018 , 51, 943-951	3.8	5
97	Anomalous Surface Doping Effect in Semiconductor Nanowires. <i>Journal of Physical Chemistry C</i> , 2017 , 121, 11824-11830	3.8	6
96	Synthesis of Onion-Like ϵ MoN Catalyst for Selective Hydrogenation. <i>Journal of Physical Chemistry C</i> , 2017 , 121, 19451-19460	3.8	21
95	Synthesis, Hardness, and Electronic Properties of Stoichiometric VN and CrN. <i>Crystal Growth and Design</i> , 2016 , 16, 351-358	3.5	38
94	Thermal equation of state of silicon carbide. <i>Applied Physics Letters</i> , 2016 , 108, 061906	3.4	21

93	Equation of state and thermodynamic Grüneisen parameter of monoclinic 1,1-diamino-2,2-dinitroethylene. <i>Journal of Physics Condensed Matter</i> , 2016 , 28, 395402	1.8	2
92	A new molybdenum nitride catalyst with rhombohedral MoS ₂ structure for hydrogenation applications. <i>Journal of the American Chemical Society</i> , 2015 , 137, 4815-22	16.4	148
91	Revisit of Pressure-Induced Phase Transition in PbSe: Crystal Structure, and Thermoelastic and Electrical Properties. <i>Inorganic Chemistry</i> , 2015 , 54, 4981-9	5.1	18
90	Unusual Mott transition in multiferroic PbCrO ₃ . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015 , 112, 15320-5	11.5	13
89	The Hardest Superconducting Metal Nitride. <i>Scientific Reports</i> , 2015 , 5, 13733	4.9	61
88	High Pressure Phase-Transformation Induced Texture Evolution and Strengthening in Zirconium Metal: Experiment and Modeling. <i>Scientific Reports</i> , 2015 , 5, 12552	4.9	18
87	A new lithium-rich anti-spinel in Li-O-Br system. <i>Chemical Communications</i> , 2015 , 51, 9666-9	5.8	8
86	Hardness, elastic, and electronic properties of chromium monoboride. <i>Applied Physics Letters</i> , 2015 , 106, 221902	3.4	46
85	Local structural distortion and electrical transport properties of Bi(Ni _{1/2} Ti _{1/2})O ₃ perovskite under high pressure. <i>Scientific Reports</i> , 2015 , 5, 18229	4.9	5
84	Sulfur-catalyzed phase transition in MoS ₂ under high pressure and temperature. <i>Journal of Physics and Chemistry of Solids</i> , 2014 , 75, 100-104	3.9	18
83	Porous ice phases with VI and distorted VII structures constrained in nanoporous silica. <i>Nano Letters</i> , 2014 , 14, 6554-8	11.5	7
82	Crystal structure and encapsulation dynamics of ice II-structured neon hydrate. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014 , 111, 10456-61	11.5	28
81	Pressure-induced reversal between thermal contraction and expansion in ferroelectric PbTiO ₃ . <i>Scientific Reports</i> , 2014 , 4, 3700	4.9	13
80	Encapsulation kinetics and dynamics of carbon monoxide in clathrate hydrate. <i>Nature Communications</i> , 2014 , 5, 4128	17.4	49
79	High pressure-high temperature synthesis of lithium-rich Li ₃ O(Cl, Br) and Li ₃ □Cax/2OCl anti-perovskite halides. <i>Inorganic Chemistry Communication</i> , 2014 , 48, 140-143	3.1	23
78	High-temperature neutron diffraction study of deuterated brucite. <i>Physics and Chemistry of Minerals</i> , 2013 , 40, 799-810	1.6	14
77	Thermal equation of state and thermodynamic Grüneisen parameter of beryllium metal. <i>Journal of Applied Physics</i> , 2013 , 114, 173509	2.5	7
76	Grain size effects on the compressibility and yield strength of copper. <i>Journal of Physics and Chemistry of Solids</i> , 2013 , 74, 75-79	3.9	9

75	Unusual structural evolution in KCuF ₃ at high temperatures by neutron powder diffraction. <i>Physical Review B</i> , 2013 , 87,	3.3	10
74	New exploration on phase transition and structure of PbS under high pressure and temperature. <i>Journal of Applied Physics</i> , 2013 , 113, 043509	2.5	2
73	Temperature and pressure effects of multiferroic Bi ₂ NiTiO ₆ compound. <i>Journal of Applied Physics</i> , 2013 , 113, 143514	2.5	9
72	Phase-transition induced elastic softening and band gap transition in semiconducting PbS at high pressure. <i>Inorganic Chemistry</i> , 2013 , 52, 8638-43	5.1	24
71	Nuclear and charge density distributions in ferroelectric PbTiO ₃ : maximum entropy method analysis of neutron and X-ray diffraction data. <i>Powder Diffraction</i> , 2013 , 28, 276-280	1.8	2
70	Compressive-tensile deformation of nanocrystalline nickel at high pressure and temperature conditions. <i>Applied Physics Letters</i> , 2013 , 103, 043118	3.4	2
69	High pressure synchrotron x-ray diffraction studies of superprotonic transitions in phosphate solid acids. <i>Solid State Ionics</i> , 2012 , 213, 58-62	3.3	10
68	High pressure neutron and synchrotron X-ray diffraction studies of tetragonal LaFeAsO _{0.9} F _{0.1} . <i>High Pressure Research</i> , 2012 , 32, 405-411	1.6	2
67	Synthesis of stoichiometric and bulk CrN through a solid-state ion-exchange reaction. <i>Chemistry - A European Journal</i> , 2012 , 18, 15459-63	4.8	32
66	Constitutive law and flow mechanism in diamond deformation. <i>Scientific Reports</i> , 2012 , 2, 876	4.9	25
65	Synthesis, Crystal Structure, and Elastic Properties of Novel Tungsten Nitrides. <i>Chemistry of Materials</i> , 2012 , 24, 3023-3028	9.6	127
64	Comparative studies of yield strength and elastic compressibility between nanocrystalline and bulk cobalt. <i>Journal of Applied Physics</i> , 2012 , 111, 113506	2.5	7
63	Experimental invalidation of phase-transition-induced elastic softening in CrN. <i>Physical Review B</i> , 2012 , 86,	3.3	42
62	Superhard diamond/tungsten carbide nanocomposites. <i>Applied Physics Letters</i> , 2011 , 98, 121914	3.4	17
61	Comparative studies of constitutive properties of nanocrystalline and bulk iron during compressive deformation. <i>Acta Materialia</i> , 2011 , 59, 3384-3389	8.4	12
60	Thermal equations of state and phase relation of PbTiO ₃ : A high P-T synchrotron x-ray diffraction study. <i>Journal of Applied Physics</i> , 2011 , 110, 084103	2.5	21
59	Thermal equation of state of TiC: A synchrotron x-ray diffraction study. <i>Journal of Applied Physics</i> , 2010 , 107, 113517	2.5	7
58	Anisotropic elasticity of jarosite: A high-P synchrotron XRD study. <i>American Mineralogist</i> , 2010 , 95, 19-232.9		16

57	High-pressure neutron diffraction studies at LANSCE. <i>Applied Physics A: Materials Science and Processing</i> , 2010 , 99, 585-599	2.6	23
56	Nanoscale twinning-induced elastic strengthening in silicon carbide nanowires. <i>Scripta Materialia</i> , 2010 , 63, 981-984	5.6	31
55	Pressure induced structural changes in the potential hydrogen storage compound ammonia borane: A combined X-ray, neutron and theoretical investigation. <i>Chemical Physics Letters</i> , 2010 , 495, 203-207	2.5	27
54	Stress-induced large Curie temperature enhancement in Fe ₆₄ Ni ₃₆ Invar alloy. <i>Physical Review B</i> , 2009 , 80,	3.3	58
53	First-principles prediction of mechanical properties of gamma-boron. <i>Applied Physics Letters</i> , 2009 , 94, 191906	3.4	37
52	High-temperature crystal structures and chemical modifications in RbH(2)PO(4). <i>Journal of Physics Condensed Matter</i> , 2009 , 21, 325401	1.8	20
51	Thermal equation of state of copper studied by high P-T synchrotron x-ray diffraction. <i>Applied Physics Letters</i> , 2009 , 94, 071904	3.4	22
50	Nanocrystalline tungsten carbide: As incompressible as diamond. <i>Applied Physics Letters</i> , 2009 , 95, 211906	3.4	38
49	Thermal equations of state for titanium obtained by high pressure-temperature diffraction studies. <i>Physical Review B</i> , 2008 , 78,	3.3	42
48	Pressure-induced shear-mode elastic softening in orthorhombic BaCe _{0.85} Y _{0.15} O _{2.925} perovskite. <i>High Pressure Research</i> , 2008 , 28, 415-421	1.6	0
47	Strength measurement of boron suboxide B ₆ O at high pressure and temperature using in situ synchrotron X-ray diffraction. <i>High Pressure Research</i> , 2008 , 28, 423-430	1.6	1
46	Thermal equation of state of rhenium diboride by high pressure-temperature synchrotron x-ray studies. <i>Physical Review B</i> , 2008 , 78,	3.3	31
45	Phase transition and compressibility in silicon nanowires. <i>Nano Letters</i> , 2008 , 8, 2891-5	11.5	45
44	In situ phase transition study of nano- and coarse-grained TiO ₂ under high pressure/temperature conditions. <i>Journal of Physics Condensed Matter</i> , 2008 , 20, 125224	1.8	14
43	Thermal equations of state and melting of lithium deuteride under high pressure. <i>Journal of Applied Physics</i> , 2008 , 103, 093513	2.5	8
42	Microstrain and grain-size analysis from diffraction peak width and graphical derivation of high-pressure thermomechanics. <i>Journal of Applied Crystallography</i> , 2008 , 41, 1095-1108	3.8	133
41	Experimental constraints on the phase diagram of titanium metal. <i>Journal of Physics and Chemistry of Solids</i> , 2008 , 69, 2559-2563	3.9	21
40	What is the theoretical density of a nanocrystalline material?. <i>Acta Materialia</i> , 2008 , 56, 3663-3671	8.4	39

39	A novel helical double-layered cobalt(II)-organic framework with tetranuclear [Co ₄ (μ ₃ -OH) ₂] clusters linked by an unsymmetrical pyridylbenzoate ligand. <i>Inorganic Chemistry</i> , 2007 , 46, 9021-3	5.1	83
38	Strength weakening by nanocrystals in ceramic materials. <i>Nano Letters</i> , 2007 , 7, 3196-9	11.5	38
37	Comparative studies of compressibility between nanocrystalline and bulk nickel. <i>Applied Physics Letters</i> , 2007 , 90, 043112	3.4	32
36	Thermomechanics of nanocrystalline nickel under high pressure-temperature conditions. <i>Nano Letters</i> , 2007 , 7, 426-32	11.5	31
35	High-temperature phase transitions in CsH ₂ PO ₄ under ambient and high-pressure conditions: a synchrotron x-ray diffraction study. <i>Journal of Chemical Physics</i> , 2007 , 127, 194701	3.9	26
34	Elasticity of β phase zirconium. <i>Physical Review B</i> , 2007 , 76,	3.3	28
33	Elastic properties of yttrium-doped BaCeO ₃ perovskite. <i>Applied Physics Letters</i> , 2007 , 90, 161903	3.4	14
32	Compressibility and pressure-induced amorphization of guest-free melanophlogite: An in-situ synchrotron X-ray diffraction study. <i>American Mineralogist</i> , 2007 , 92, 166-173	2.9	13
31	Effect of solute segregation on the strength of nanocrystalline alloys: Inverse Hall-Petch relation. <i>Acta Materialia</i> , 2007 , 55, 5007-5013	8.4	76
30	Pressure-induced cubic to monoclinic phase transformation in erbium sesquioxide Er ₂ O ₃ . <i>Inorganic Chemistry</i> , 2007 , 46, 6164-9	5.1	61
29	Pressure-driven phase transitions in NaBH ₄ : theory and experiments. <i>Journal of Physical Chemistry B</i> , 2007 , 111, 13873-6	3.4	32
28	Equations of state and phase transformation of depleted uranium DU-238 by high pressure-temperature diffraction studies. <i>Physical Review B</i> , 2007 , 75,	3.3	9
27	In situ neutron diffraction study of deuterated portlandite Ca(OD) ₂ at high pressure and temperature. <i>Physics and Chemistry of Minerals</i> , 2007 , 34, 223-232	1.6	26
26	High-P-T Nano-Mechanics of Polycrystalline Nickel. <i>Nanoscale Research Letters</i> , 2007 , 2, 476-91	5	8
25	Impurity effects on the phase transformations and equations of state of zirconium metals. <i>Journal of Physics and Chemistry of Solids</i> , 2007 , 68, 2297-2302	3.9	22
24	Enhancement of yield strength in zirconium metal through high-pressure induced structural phase transition. <i>Applied Physics Letters</i> , 2007 , 91, 201907	3.4	26
23	Synthesis and Characterization of NanoComposite Superhard Materials. <i>Materials Research Society Symposia Proceedings</i> , 2006 , 987, 1		
22	Pressure-induced long-range magnetic ordering in cobalt oxide. <i>Physical Review B</i> , 2006 , 74,	3.3	15

21	Elasticity of polycrystalline pyrope ($\text{Mg}_3\text{Al}_2\text{Si}_3\text{O}_{12}$) to 9GPa and 1000°C. <i>Physics of the Earth and Planetary Interiors</i> , 2006 , 155, 179-190	2.3	57
20	Pressure-Induced Amorphization and Phase Transformations in $\beta\text{-LiAlSiO}_4$. <i>Chemistry of Materials</i> , 2005 , 17, 2817-2824	9.6	35
19	Pressure and temperature dependence of elastic wave velocity of MgSiO_3 perovskite and the composition of the lower mantle. <i>Physics of the Earth and Planetary Interiors</i> , 2005 , 151, 143-154	2.3	85
18	Thermal equations of state of the β and γ phases of zirconium. <i>Physical Review B</i> , 2005 , 71,	3.3	93
17	Experimental constraints on the phase diagram of elemental zirconium. <i>Journal of Physics and Chemistry of Solids</i> , 2005 , 66, 1213-1219	3.9	58
16	Effects of defect and pressure on the thermal expansivity of Fe_xO . <i>Physics and Chemistry of Minerals</i> , 2005 , 32, 241-247	1.6	9
15	Yield strength enhancement of MgO by nanocrystals. <i>Journal of Materials Science</i> , 2005 , 40, 5763-5766	4.3	19
14	Development of high P neutron diffraction at LANSCE toroidal anvil press, TAP-98, in the HiPPO diffractometer 2005 , 461-474		12
13	Variable pressure-temperature neutron diffraction of wüstite (Fe_{1-x}O): Absence of long-range magnetic order to 20GPa. <i>Applied Physics Letters</i> , 2005 , 86, 052505	3.4	19
12	Formation of zirconium metallic glass. <i>Nature</i> , 2004 , 430, 332-5	50.4	41
11	Enhancement of fracture toughness in nanostructured diamond/SiC composites. <i>Applied Physics Letters</i> , 2004 , 84, 1356-1358	3.4	90
10	Elasticity of single crystal and polycrystalline MgSiO_3 perovskite by Brillouin spectroscopy. <i>Geophysical Research Letters</i> , 2004 , 31, n/a-n/a	4.9	68
9	The strength of moissanite. <i>American Mineralogist</i> , 2002 , 87, 1005-1008	2.9	26
8	Elasticity of $(\text{Mg}_{0.83}, \text{Fe}_{0.17})\text{O}$ ferropericlaase at high pressure: ultrasonic measurements in conjunction with X-radiation techniques. <i>Earth and Planetary Science Letters</i> , 2002 , 203, 557-566	5.3	83
7	Thermal equation of state of magnesio-wüstite ($\text{Mg}_{0.6}\text{Fe}_{0.4}\text{O}$). <i>Physics of the Earth and Planetary Interiors</i> , 2002 , 129, 301-311	2.3	50
6	Effect of defects on the elastic properties of Wüstite. <i>Physical Review Letters</i> , 2000 , 84, 507-10	7.4	42
5	New experimental observations on the anhydrous solidus for peridotite KLB-1. <i>Geochemistry, Geophysics, Geosystems</i> , 2000 , 1, n/a-n/a	3.6	108
4	High-pressure equation of state of magnesite: New data and a reappraisal. <i>American Mineralogist</i> , 1999 , 84, 861-870	2.9	80

3	Thermal equation of state of garnets along the pyrope-majorite join. <i>Physics of the Earth and Planetary Interiors</i> , 1998 , 105, 59-71	2.3	74
2	Thermoelastic equation of state of jadeite NaAlSi ₂ O ₆ : An energy-dispersive Reitveld Refinement Study of low symmetry and multiple phases diffraction. <i>Geophysical Research Letters</i> , 1997 , 24, 5-8	4.9	45
1	In situ X-ray observations of the coesite-stishovite transition: reversed phase boundary and kinetics. <i>Physics and Chemistry of Minerals</i> , 1996 , 23, 1	1.6	221