

Liping Wang

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.

99
papers

2,317
citations

27
h-index

43
g-index

107
ext. papers

2,659
ext. citations

3.9
avg, IF

4.41
L-index

#	Paper	IF	Citations
99	Concurrent Pressure-Induced Spin-State Transitions and Jahn-Teller Distortions in MnTe. <i>Chemistry of Materials</i> , 2022 , 34, 3931-3940	9.6	1
98	Strengthening Superhard Materials by Nanostructure Engineering. <i>Journal of Superhard Materials</i> , 2021 , 43, 307-329	0.9	0
97	Configuring solid-state batteries to power electric vehicles: a deliberation on technology, chemistry and energy. <i>Chemical Communications</i> , 2021 , 57, 12587-12594	5.8	2
96	High-Pressure and High-Temperature Synthesis and In Situ High-Pressure Synchrotron X-ray Diffraction Study of HfSi. <i>Inorganic Chemistry</i> , 2021 , 60, 15215-15222	5.1	0
95	Operation of large-volume cubic press above 8 GPa and 2500°C with a centimeter-sized cell volume using an optimized hybrid assembly. <i>High Pressure Research</i> , 2021 , 41, 132-141	1.6	0
94	Strain-driven structural selection and amorphization during first-order phase transitions in nanocrystalline Ho ₂ O ₃ under pressure. <i>Physical Review B</i> , 2021 , 103,	3.3	1
93	Novel Nitride Materials Synthesized at High Pressure. <i>Crystals</i> , 2021 , 11, 614	2.3	2
92	Soft and Self-Adhesive Thermal Interface Materials Based on Vertically Aligned, Covalently Bonded Graphene Nanowalls for Efficient Microelectronic Cooling. <i>Advanced Functional Materials</i> , 2021 , 31, 2104062	15.6	25
91	Three-dimensional visualization of lithium metal anode via low-dose cryogenic electron microscopy tomography. <i>IScience</i> , 2021 , 24, 103418	6.1	2
90	Compressibility and thermoelasticity of CrN. <i>High Pressure Research</i> , 2020 , 40, 423-433	1.6	
89	Microstructure, mechanical and tribological properties of Mo-V-N films by reactive magnetron sputtering. <i>Surface and Coatings Technology</i> , 2020 , 387, 125532	4.4	9
88	Strain stiffening, high load-invariant hardness, and electronic anomalies of boron phosphide under pressure. <i>Physical Review B</i> , 2020 , 101,	3.3	14
87	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
86	Structural and Physical Properties of ZrSi under High Pressure: Experimental Study and First-Principles Calculations. <i>Inorganic Chemistry</i> , 2019 , 58, 405-410	5.1	4
85	Microstructure evolution, densification behavior and mechanical properties of nano-HfB ₂ sintered under high pressure. <i>Ceramics International</i> , 2019 , 45, 7885-7893	5.1	13
84	Vanadium Diboride (VB) Synthesized at High Pressure: Elastic, Mechanical, Electronic, and Magnetic Properties and Thermal Stability. <i>Inorganic Chemistry</i> , 2018 , 57, 1096-1105	5.1	39
83	Pressure-induced structural and electronic transitions, metallization, and enhanced visible-light responsiveness in layered rhenium disulphide. <i>Physical Review B</i> , 2018 , 97,	3.3	18

82	Synthesis of Onion-Like EMoN Catalyst for Selective Hydrogenation. <i>Journal of Physical Chemistry C</i> , 2017 , 121, 19451-19460	3.8	21
81	Thermal equation of state of a natural kyanite up to 8.55 GPa and 1273 K. <i>Matter and Radiation at Extremes</i> , 2016 , 1, 269-276	4.7	3
80	Reaction mechanism studies towards effective fabrication of lithium-rich anti-perovskites Li ₃ OX (X= Cl, Br). <i>Solid State Ionics</i> , 2016 , 284, 14-19	3.3	58
79	Synthesis, Hardness, and Electronic Properties of Stoichiometric VN and CrN. <i>Crystal Growth and Design</i> , 2016 , 16, 351-358	3.5	38
78	Enhanced ionic conductivity with Li ₇ O ₂ Br ₃ phase in Li ₃ OBr anti-perovskite solid electrolyte. <i>Applied Physics Letters</i> , 2016 , 109, 101904	3.4	27
77	Thermal equation of state of silicon carbide. <i>Applied Physics Letters</i> , 2016 , 108, 061906	3.4	21
76	Elastic, magnetic and electronic properties of iridium phosphide Ir ₂ P. <i>Scientific Reports</i> , 2016 , 6, 21787	4.9	14
75	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
74	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
73	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
72	Diamond-cBN alloy: A universal cutting material. <i>Applied Physics Letters</i> , 2015 , 107, 101901	3.4	23
71	A new lithium-rich anti-spinel in Li-O-Br system. <i>Chemical Communications</i> , 2015 , 51, 9666-9	5.8	8
70	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
69	Crystal structures, elastic properties, and hardness of high-pressure synthesized CrB ₂ and CrB ₄ . <i>Journal of Superhard Materials</i> , 2014 , 36, 279-287	0.9	43
68	High pressure-high temperature synthesis of lithium-rich Li ₃ O(Cl, Br) and Li ₃ xCax/2OCl anti-perovskite halides. <i>Inorganic Chemistry Communication</i> , 2014 , 48, 140-143	3.1	23
67	Elasticity and sound velocities of polycrystalline grossular garnet (Ca ₃ Al ₂ Si ₃ O ₁₂) at simultaneous high pressures and high temperatures. <i>Physics of the Earth and Planetary Interiors</i> , 2014 , 228, 80-87	2.3	20
66	Synthesis and structure of perovskite ScMnO ₃ . <i>Inorganic Chemistry</i> , 2013 , 52, 9692-7	5.1	21
65	Phase transformations in hypereutectic MgO-Y ₂ O ₃ nanocomposites at 5.5 GPa. <i>Journal of Applied Physics</i> , 2013 , 113, 203520	2.5	3

64	Thermal equation of state and thermodynamic Grüneisen parameter of beryllium metal. <i>Journal of Applied Physics</i> , 2013 , 114, 173509	2.5	7
63	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
62	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
61	Constitutive law and flow mechanism in diamond deformation. <i>Scientific Reports</i> , 2012 , 2, 876	4.9	25
60	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
59	Pressure effects on phase equilibria and solid solubility in MgO-Y2O3 nanocomposites. <i>Journal of Applied Physics</i> , 2012 , 111, 053506	2.5	5
58	The relative strength of perovskite and post-perovskite NaCoF3. <i>Mineralogical Magazine</i> , 2012 , 76, 925-932	3.2	11
57	Experimental invalidation of phase-transition-induced elastic softening in CrN. <i>Physical Review B</i> , 2012 , 86,	3.3	42
56	High-pressure phase transformations in MgO-Y2O3 nanocomposites. <i>Applied Physics Letters</i> , 2011 , 99, 141915	3.4	4
55	Deformation of olivine at subduction zone conditions determined from in situ measurements with synchrotron radiation. <i>Physics of the Earth and Planetary Interiors</i> , 2011 , 186, 23-35	2.3	26
54	Superhard diamond/tungsten carbide nanocomposites. <i>Applied Physics Letters</i> , 2011 , 98, 121914	3.4	17
53	Density and elasticity of Zr46Cu37.6Ag8.4Al8 bulk metallic glass at high pressure. <i>Scripta Materialia</i> , 2011 , 65, 497-500	5.6	11
52	Thermal equation of state of CaIrO3 post-perovskite. <i>Physics and Chemistry of Minerals</i> , 2011 , 38, 407-417	2.6	8
51	Comparative studies of constitutive properties of nanocrystalline and bulk iron during compressive deformation. <i>Acta Materialia</i> , 2011 , 59, 3384-3389	8.4	12
50	Thermal equations of state and phase relation of PbTiO3: A high P-T synchrotron x-ray diffraction study. <i>Journal of Applied Physics</i> , 2011 , 110, 084103	2.5	21
49	Thermal equation of state of TiC: A synchrotron x-ray diffraction study. <i>Journal of Applied Physics</i> , 2010 , 107, 113517	2.5	7
48	Precise stress measurements with white synchrotron x rays. <i>Review of Scientific Instruments</i> , 2010 , 81, 013903	1.7	37
47	In situ ultrasonic velocity measurements across the olivine-spinel transformation in Fe2SiO4. <i>American Mineralogist</i> , 2010 , 95, 1000-1005	2.9	7

46	Observation of anomalous phonons in orthorhombic rare-earth manganites. <i>Applied Physics Letters</i> , 2010 , 97, 262905	3.4	3
45	Anisotropic elasticity of jarosite: A high-P synchrotron XRD study. <i>American Mineralogist</i> , 2010 , 95, 19-23.	2.9	16
44	In Situ XRD Studies of ZnO/GaN Mixtures at High Pressure and High Temperature: Synthesis of Zn-Rich (Ga _{1-x} Zn _x)(N _{1-x} O _x) Photocatalysts. <i>Journal of Physical Chemistry C</i> , 2010 , 114, 1809-1814	3.8	66
43	High-Pressure Research at the National Synchrotron Light Source. <i>Synchrotron Radiation News</i> , 2010 , 23, 24-30	0.6	3
42	Acoustic velocities and elastic properties of pyrite (FeS ₂) to 9.6 GPa. <i>Journal of Earth Science (Wuhan, China)</i> , 2010 , 21, 792-800	2.2	14
41	Thermoelasticity of FeSi to 8 GPa and 1273 K. <i>American Mineralogist</i> , 2009 , 94, 1039-1044	2.9	13
40	Weakening of calcium iridate during its transformation from perovskite to post-perovskite. <i>Nature Geoscience</i> , 2009 , 2, 794-797	18.3	66
39	Pressure and temperature dependence of the elasticity of pyrope-majorite [Py ₆₀ Mj ₄₀ and Py ₅₀ Mj ₅₀] garnets solid solution measured by ultrasonic interferometry technique. <i>Physics of the Earth and Planetary Interiors</i> , 2009 , 174, 105-112	2.3	22
38	New measurements of activation volume in olivine under anhydrous conditions. <i>Physics of the Earth and Planetary Interiors</i> , 2009 , 172, 67-73	2.3	57
37	An exploratory study of the viscoelasticity of phase-transforming material. <i>Physics of the Earth and Planetary Interiors</i> , 2009 , 174, 174-180	2.3	3
36	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
35	Thermal equations of state for titanium obtained by high pressure-temperature diffraction studies. <i>Physical Review B</i> , 2008 , 78,	3.3	42
34	Elastic softening of peridotite due to the presence of melt phases at high pressure. <i>Physics of the Earth and Planetary Interiors</i> , 2008 , 170, 176-180	2.3	3
33	Experimental investigation of the creep behavior of MgO at high pressures. <i>Physics of the Earth and Planetary Interiors</i> , 2008 , 170, 170-175	2.3	17
32	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
31	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
30	Combined in situ synchrotron X-ray diffraction and ultrasonic interferometry study of FeSi at high pressure. <i>High Pressure Research</i> , 2008 , 28, 385-395	1.6	7
29	Thermal equation of state of CaGeO ₃ perovskite. <i>American Mineralogist</i> , 2008 , 93, 745-750	2.9	6

28	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
27	Compressional and shear wave velocities of Fe ₂ SiO ₄ spinel at high pressure and high temperature. <i>High Pressure Research</i> , 2008 , 28, 405-413	1.6	8
26	Network rigidity in GeSe ₂ glass at high pressure. <i>Physical Review Letters</i> , 2008 , 100, 115501	7.4	41
25	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
24	Thermomechanics of nanocrystalline nickel under high pressure-temperature conditions. <i>Nano Letters</i> , 2007 , 7, 426-32	11.5	31
23	Elasticity of β phase zirconium. <i>Physical Review B</i> , 2007 , 76,	3.3	28
22	Plastic deformation of silicon between 20 °C and 425 °C. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2007 , 4, 3110-3114		25
21	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
20	The elastic properties of β -Mg ₂ SiO ₄ from 295 to 660K and implications on the composition of Earth's upper mantle. <i>Physics of the Earth and Planetary Interiors</i> , 2007 , 162, 22-31	2.3	23
19	Do Reuss and Voigt bounds really bound in high-pressure rheology experiments?. <i>Journal of Physics Condensed Matter</i> , 2006 , 18, S1049-59	1.8	29
18	Elasticity of polycrystalline pyrope (Mg ₃ Al ₂ Si ₃ O ₁₂) to 9GPa and 1000°C. <i>Physics of the Earth and Planetary Interiors</i> , 2006 , 155, 179-190	2.3	57
17	Kinetics of SiC formation during high P/T reaction between diamond and silicon. <i>Diamond and Related Materials</i> , 2005 , 14, 1611-1615	3.5	21
16	Pressure-Induced Amorphization and Phase Transformations in β -LiAlSiO ₄ . <i>Chemistry of Materials</i> , 2005 , 17, 2817-2824	9.6	35
15	Fe-Mg order-disorder in orthopyroxenes. <i>Geochimica Et Cosmochimica Acta</i> , 2005 , 69, 5777-5788	5.5	37
14	Thermal equations of state of the β and β' phases of zirconium. <i>Physical Review B</i> , 2005 , 71,	3.3	93
13	Thermal equation-of-state of osmium: a synchrotron X-ray diffraction study. <i>Journal of Physics and Chemistry of Solids</i> , 2005 , 66, 706-710	3.9	15
12	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
11	Yield strength enhancement of MgO by nanocrystals. <i>Journal of Materials Science</i> , 2005 , 40, 5763-5766	4.3	19

10	Density measurements of molten materials at high pressure using synchrotron X-ray radiography: melting volume of FeS 2005 , 185-194		2
9	In situ X-ray diffraction study of germanium at pressures up to 11 GPa and temperatures up to 950K. <i>Journal of Physics and Chemistry of Solids</i> , 2003 , 64, 2113-2119	3.9	27
8	In situ x-ray diffraction study of silicon at pressures up to 15.5 GPa and temperatures up to 1073 K. <i>Physical Review B</i> , 2003 , 68,	3.3	54
7	The strength of moissanite. <i>American Mineralogist</i> , 2002 , 87, 1005-1008	2.9	26
6	Carmichaelite, a new hydroxyl-bearing titanate from Garnet Ridge, Arizona. <i>American Mineralogist</i> , 2000 , 85, 792-800	2.9	7
5	Direct observation of immiscibility in pyrope-almandine-grossular garnet. <i>American Mineralogist</i> , 2000 , 85, 41-46	2.9	12
4	Mineral inclusions in pyrope crystals from Garnet Ridge, Arizona, USA: implications for processes in the upper mantle. <i>Contributions To Mineralogy and Petrology</i> , 1999 , 135, 164-178	3.5	58
3	Structural Studies of the Natural Antimonian Pyrochlores. <i>Journal of Solid State Chemistry</i> , 1998 , 141, 562-569	3.3	23
2	New calibration of infrared measurement of dissolved water in rhyolitic glasses. <i>Geochimica Et Cosmochimica Acta</i> , 1997 , 61, 3089-3100	5.5	128
1	Diffusion of the hydrous component in pyrope. <i>American Mineralogist</i> , 1996 , 81, 706-718	2.9	71