Xiang Wu

List of Publications by Year in descending order

122 papers	2,396 citations	236925 25 h-index	254184 43 g-index
127 all docs	127 docs citations	127 times ranked	3775 citing authors

#	Article	IF	Citations
1	Thermal equation of state of F-bearing superhydrous phase B (Mg10Si3O14(OH,F)4): Implications for the transportation of fluorine and water into the lower mantle. Physics of the Earth and Planetary Interiors, 2022, 323, 106824.	1.9	1
2	Phase transition of Mg3(PO4)2 polymorphs at high-temperature: In-situ synchrotron X-ray diffraction and Raman spectroscopic study. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2022, 269, 120762.	3.9	4
3	Partial dehydration of brucite and its implications for water distribution in the subducting oceanic slab. Geoscience Frontiers, 2022, 13, 101342.	8.4	3
4	Fate of Carbonates in the Earthâ€™s Mantle (10-136 GPa). Frontiers in Earth Science, 2022, 10, .	1.8	5
5	Raman spectroscopic and X-ray diffraction study of Î±- and Î²-Mg2P2O7 at various temperatures. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2022, 273, 121076.	3.9	3
6	Pressure- and temperature-dependent Raman spectra of Ca2Fe2O5 oxygen defect perovskite. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2022, 279, 121436.	3.9	3
7	Thermal equation of state of phase egg (AlSiO3OH): implications for hydrous phases in the deep earth. Contributions To Mineralogy and Petrology, 2021, 176, 1.	3.1	2
8	Dualâ€Stimuliâ€Responsive Photoluminescence of Enantiomeric Twoâ€Dimensional Lead Halide Perovskites. Advanced Optical Materials, 2021, 9, 2100003.	7.3	38
9	Highâ€Pressure Phase Stability and Thermoelastic Properties of Iron Carbonitrides and Nitrogen in the Deep Earth. Journal of Geophysical Research: Solid Earth, 2021, 126, e2021JB021934.	3.4	3
10	Raman spectra and X-ray diffraction of merrillite at various temperatures. Vibrational Spectroscopy, 2020, 106, 103005.	2.2	10
11	Petrofabrics and Seismic Properties of Himalayan Amphibolites: Implications for a Thick Anisotropic Deep Crust Beneath Southern Tibet. Journal of Geophysical Research: Solid Earth, 2020, 125, e2019JB018700.	3.4	11
12	Pressure-Induced Phase Transition in Mn(Ta,Nb)₂O₆: An Experimental Investigation and First-Principle Study. Inorganic Chemistry, 2020, 59, 18122-18130.	4.0	6
13	X-ray diffraction and Raman spectra of merrillite at high pressures. High Pressure Research, 2020, 40, 411-422.	1.2	2
14	Thermal Behavior of Pyromorphite (Pb10(PO4)6Cl2): In Situ High Temperature Powder X-ray Diffraction Study. Crystals, 2020, 10, 1070.	2.2	5
15	Distance makes a difference in crystalline photoluminescence. Nature Communications, 2020, 11, 5572.	12.8	37
16	Structural Modifications of Single-Crystal Aragonite CaCO3 Beginning at ~15 GPa: In Situ Vibrational Spectroscopy and X-Ray Diffraction Evidence. Minerals (Basel, Switzerland), 2020, 10, 924.	2.0	7
17	Raman spectra of sillimanite, andalusite, and kyanite at various temperatures. Physics and Chemistry of Minerals, 2020, 47, 1.	0.8	13
18	Phase transition of sanidine (KAlSi3O8) and its effect on electrical conductivity at pressures up to 11ÂGPa. Physics and Chemistry of Minerals, 2020, 47, 1.	0.8	3

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19	Thermal stability and compressibility of bastnaesite. Physics and Chemistry of Minerals, 2020, 47, 1.	0.8	4
20	CO 2 Induced a Small Water Solubility in Orthopyroxene and Its Implications for Water Storage in the Upper Mantle. Journal of Geophysical Research: Solid Earth, 2020, 125, e2019JB018745.	3.4	0
21	Magnetism-Vanishing Stabilizes the Pyrite-Type 3d Transition Metal Peroxides at High Pressures. Journal of Physical Chemistry C, 2020, 124, 10085-10093.	3.1	1
22	Structural characteristics and elasticities of coesite and coesite-II at high pressure. New Journal of Physics, 2020, 22, 093044.	2.9	1
23	Compressibility of natural schreibersite up to 50 GPa. Physics and Chemistry of Minerals, 2019, 46, 91-99.	0.8	5
24	Elasticity and Anisotropy of the Pyrite-Type FeO2H-FeO2 System in Earthâ€™s Lowermost Mantle. Journal of Earth Science (Wuhan, China), 2019, 30, 1293-1301.	3.2	7
25	High-temperature Raman and FTIR study of aragonite-group carbonates. Physics and Chemistry of Minerals, 2019, 46, 51-62.	0.8	24
26	Tuning Pressure-Induced Phase Transitions, Amorphization, and Excitonic Emissions of 2D Hybrid Perovskites via Varying Organic Amine Cations. Journal of Physical Chemistry C, 2019, 123, 22491-22498.	3.1	19
27	Pressure-induced phase transition of La₂Zr₂O₇ and La_{0.5}Gd_{1.5}Zr₂O₇ pyrochlore. RSC Advances, 2019, 9, 18954-18962.	3.6	10
28	Temperature-induced phase transition of Ca2AlSiO5.5: Raman spectroscopic study. Vibrational Spectroscopy, 2019, 103, 102935.	2.2	5
29	Structural, Optical, and Thermal Properties of Cs₂SnI₆_{â€“}_xBr_x Mixed Perovskite Solid Solutions. European Journal of Inorganic Chemistry, 2019, 2019, 2524-2529.	2.0	21
30	Pressure-induced dehydration of dioptase: A single-crystal X-ray diffraction and Raman spectroscopy study. Comptes Rendus - Geoscience, 2019, 351, 121-128.	1.2	0
31	Compressional behavior of natural eclogitic zoisite by synchrotron X-ray single-crystal diffraction to 34 GPa. Physics and Chemistry of Minerals, 2019, 46, 333-341.	0.8	3
32	Phase transition of intermetallic TbPt at high temperature and high pressure. Journal of Physics Condensed Matter, 2018, 30, 144001.	1.8	0
33	Stability and anisotropy of (FexNi1â^'x)2O under high pressure and implications in Earthâ€™s and super-Earthsâ€™ core. Scientific Reports, 2018, 8, 236.	3.3	8
34	Jahnâ€“Teller Effect on Framework Flexibility of Hybrid Organicâ€“Inorganic Perovskites. Journal of Physical Chemistry Letters, 2018, 9, 751-755.	4.6	47
35	High pressure experimental studies on Na3Fe(PO4)(CO3) and Na3Mn(PO4)(CO3): Extensive pressure behaviors of carbonophosphates family. Journal of Physics and Chemistry of Solids, 2018, 115, 248-253.	4.0	5
36	Ultrahighâ€Pressure Phase Transitions in FeS₂ and FeO₂: Implications for Superâ€Earths' Deep Interior. Journal of Geophysical Research: Solid Earth, 2018, 123, 277-284.	3.4	10

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37	Compressibility of Cs 2 SnBr 6 by X-ray diffraction and Raman spectroscopy. Solid State Communications, 2018, 275, 68-72.	1.9	24
38	Pressure-induced phase transformation of CsPbI₃ by X-ray diffraction and Raman spectroscopy. Phase Transitions, 2018, 91, 38-47.	1.3	61
39	Structural, magnetic and electronic properties of CrO₂ at multimegabar pressures. RSC Advances, 2018, 8, 24561-24570.	3.6	10
40	High-pressure phase transitions of natural chromitite from Tibetan ophiolites. Lithos, 2018, 320-321, 20-27.	1.4	2
41	Pressure-induced reversible phase transition on Mo2Ga2C. Journal of Applied Physics, 2018, 124, .	2.5	7
42	Zero Linear Compressibility in Nondense Borates with a â€œLuâ€Ban Stoolâ€â€Like Structure. Advanced Materials, 2018, 30, e1801313.	21.0	22
43	Highly Active Surface Structure in Nanosized Spinel Cobalt-Based Oxides for Electrocatalytic Water Splitting. Journal of Physical Chemistry C, 2018, 122, 14447-14458.	3.1	24
44	High pressure structural investigation on alluaudites Na 2 Fe 3 (PO 4) 3 -Na 2 FeMn 2 (PO 4) 3 system. Journal of Solid State Chemistry, 2017, 247, 156-160.	2.9	4
45	Equation of state and hyperfine parameters of high-spin bridgmanite in the Earthâ€™s lower mantle by synchrotron X-ray diffraction and MÃ¶ssbauer spectroscopy. American Mineralogist, 2017, 102, 357-368.	1.9	26
46	High mechanical strength in Zn₄B₆O₁₃with an unique sodalite-cage structure. RSC Advances, 2017, 7, 2038-2043.	3.6	7
47	Phase relations of the nepheline-kalsilite system: X-ray diffraction and MÃ¶ssbauer spectroscopy. Journal of Alloys and Compounds, 2017, 712, 613-617.	5.5	6
48	Pressure-induced structural and spin transitions of Fe3S4. Scientific Reports, 2017, 7, 46334.	3.3	10
49	Seismic anisotropy of the Dâ€³ layer induced by (001) deformation of post-perovskite. Nature Communications, 2017, 8, 14669.	12.8	20
50	Spin transition of ferric iron in the calciumâ€ferrite type aluminous phase. Journal of Geophysical Research: Solid Earth, 2017, 122, 5935-5944.	3.4	7
51	K-Î› crossover transition in the conduction band of monolayer MoS ₂ under hydrostatic pressure. Science Advances, 2017, 3, e1700162.	10.3	60
52	Thermal Equation of State of Natural Tiâ€Bearing Clinohumite. Journal of Geophysical Research: Solid Earth, 2017, 122, 8943-8951.	3.4	12
53	Ultradeep diamonds originate from deep subducted sedimentary carbonates. Science China Earth Sciences, 2017, 60, 207-217.	5.2	7
54	Hydrogen-Bond Symmetrization of Î´ -AlOOH. Chinese Physics Letters, 2017, 34, 108301.	3.3	8

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55	Preparation and thermal characterization of sodium acetate trihydrate/expanded graphite composite phase change material. Journal of Thermal Analysis and Calorimetry, 2016, 125, 831-838.	3.6	31
56	Twoâ€stage spin transition of iron in FeAlâ€bearing phase D at lower mantle. Journal of Geophysical Research: Solid Earth, 2016, 121, 6411-6420.	3.4	12
57	High-pressure behavior of natural single-crystal epidote and clinozoisite up to 40 GPa. Physics and Chemistry of Minerals, 2016, 43, 649-659.	0.8	16
58	Elasticity of singleâ€crystal NAL phase at high pressure: A potential source of the seismic anisotropy in the lower mantle. Journal of Geophysical Research: Solid Earth, 2016, 121, 5696-5707.	3.4	7
59	Confirming a pyrolitic lower mantle using selfâ€consistent pressure scales and new constraints on CaSiO₃ perovskite. Journal of Geophysical Research: Solid Earth, 2016, 121, 4876-4894.	3.4	24
60	High-pressure, high-temperature synthesis and properties of the monoclinic phase of Y2O3. Chemical Research in Chinese Universities, 2016, 32, 545-548.	2.6	5
61	High pressure behaviour and elastic properties of a dense inorganicâ€“organic framework. Dalton Transactions, 2016, 45, 4303-4308.	3.3	26
62	Spin transition of ferric iron in the NAL phase: Implications for the seismic heterogeneities of subducted slabs in the lower mantle. Earth and Planetary Science Letters, 2016, 434, 91-100.	4.4	30
63	Phase stabilities and spin transitions of Fe₃(S_{1â^'x}P_x) at high pressure and its implications in meteorites. American Mineralogist, 2016, 101, 205-210.	1.9	16
64	Negative linear compressibility in a crystal of Î±-BiB3O6. Scientific Reports, 2015, 5, 13432.	3.3	28
65	Isotropic Negative Area Compressibility over Large Pressure Range in Potassium Beryllium Fluoroborate and its Potential Applications in Deep Ultraviolet Region. Advanced Materials, 2015, 27, 4851-4857.	21.0	52
66	Pressure-induced phase transition and dissociation of PbMoO4. Physica Status Solidi (B): Basic Research, 2015, 252, 2215-2221.	1.5	3
67	Selfâ€Assembled Alluaudite Na₂Fe_{3â^'x}Mn_x(PO₄)₃ Micro/Nanocompounds for Sodiumâ€ion Battery Electrodes: A New Insight into Their Electronic and Geometric Structure. Chemistry - A European Journal, 2015, 21, 851-860.	3.3	63
68	Phase, microstructure and microwave dielectric properties of A-site deficient (La, Nd)2/3TiO3 perovskite ceramics. Materials Science-Poland, 2015, 33, 126-130.	1.0	4
69	Equation of state of a synthetic ulvÃ¶spinel, (Fe1.94Ti0.03)Ti1.00O4.00, at ambient temperature. Physics and Chemistry of Minerals, 2015, 42, 171-177.	0.8	9
70	High-pressure phase transitions and compressibilities of aragonite-structure carbonates: SrCO3 and BaCO3. Physics and Chemistry of Minerals, 2015, 42, 517-527.	0.8	33
71	Compressibilities of MnFe2O4 polymorphs. Physics and Chemistry of Minerals, 2015, 42, 569-577.	0.8	11
72	The crystal chemistry and the compressibility of silicate-carbonate minerals: Spurrite, galuskinite and tilleyite. Geoscience Frontiers, 2015, 6, 771-777.	8.4	11

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73	Pressure-dependent Raman spectra of Î²-Ca3(PO4)2 whitlockite. Physics and Chemistry of Minerals, 2015, 42, 303-308.	0.8	15
74	Compressibility of carbonophosphate bradleyite Na3Mg(CO3)(PO4) by X-ray diffraction and Raman spectroscopy. Physics and Chemistry of Minerals, 2015, 42, 191-201.	0.8	16
75	Structural phase transition and microwave dielectric properties of Ca1â^'x Sr x TiO3 (xÂ=Â0.1â€“0.9) ceramics. Journal of Materials Science: Materials in Electronics, 2015, 26, 1507-1511.	2.2	10
76	Experimental and theoretical identification of a high-pressure polymorph of Ga2S3 with Î±-Bi2Te3-type structure. Journal of Applied Physics, 2014, 116, 193507.	2.5	6
77	Quasi-hydrostatic Limit of LiF as a Pressure Transmitting Medium and Its Equation of States. Chinese Physics Letters, 2014, 31, 056201.	3.3	4
78	Experimental and theoretical investigation on the compression mechanism of FeF₃up to 62.0â€…GPa. Acta Crystallographica Section B: Structural Science, Crystal Engineering and Materials, 2014, 70, 801-808.	1.1	7
79	Pressure-induced drastic collapse of a high oxygen coordination shell in quartz-likeÎ±-GeO₂. New Journal of Physics, 2014, 16, 023022.	2.9	11
80	Experimental and theoretical investigations on high-pressure phase transition of Sr2Fe2O5. Physics and Chemistry of Minerals, 2014, 41, 449-459.	0.8	6
81	Pressure-induced semiconducting to metallic transition in multilayered molybdenum disulphide. Nature Communications, 2014, 5, 3731.	12.8	495
82	Compressibility of a natural smithsonite ZnCO₃up to 50ÂGPa. High Pressure Research, 2014, 34, 89-99.	1.2	22
83	Processing and characterization of A-site deficient [(Ca, Sr) x (La, Nd)2/3â^'2x/3]TiO3 dielectric ceramics. Journal of Materials Science: Materials in Electronics, 2014, 25, 5282-5287.	2.2	1
84	X-ray diffraction studies of Sr3Cr2O8 and Ba3Cr2O8 at high pressures. Solid State Communications, 2014, 200, 5-8.	1.9	2
85	High-pressure behavior of Fe3P and the role of phosphorus in planetary cores. Earth and Planetary Science Letters, 2014, 390, 296-303.	4.4	34
86	New high-pressure polymorph of In2S3 with defect Th3P4-type structure. Journal of Solid State Chemistry, 2014, 210, 155-159.	2.9	17
87	Probing nonequivalent sites in iron phosphide Fe2P and its mechanism of phase transition. European Physical Journal B, 2013, 86, 1.	1.5	13
88	Compressibility and phase transition of intermetallic compound Fe2Ti. Journal of Alloys and Compounds, 2013, 558, 160-163.	5.5	10
89	High-pressure behavior of structural, optical, and electronic transport properties of the golden Th2S3-type Ti2O3. Physical Review B, 2013, 88, .	3.2	24
90	Compressibility of a natural P4/nnc vesuvianite. European Journal of Mineralogy, 2013, 25, 631-637.	1.3	2

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91	In situ XAFS Investigation on Zincblende ZnS up to 31.7 GPa. Chinese Physics Letters, 2013, 30, 046101.	3.3	6
92	Suppression of Bragg reflection glitches of a single-crystal diamond anvil cell by a polycapillary half-lens in high-pressure XAFS spectroscopy. Journal of Synchrotron Radiation, 2013, 20, 243-248.	2.4	20
93	Pressure-induced phase transitions of multiferroic BiFeO ₃. Chinese Physics C, 2013, 37, 128001.	3.7	5
94	Pressure-Induced Phase Transition of V ₂ O ₃. Chinese Physics Letters, 2012, 29, 106101.	3.3	10
95	High-Pressure and High-Temperature in situ X-Ray Diffraction Study of FeP ₂ up to 70 GPa. Chinese Physics Letters, 2012, 29, 026102.	3.3	8
96	Pressure-temperature phase diagram of Ti2O3and physical properties in the golden Th2S3-type phase. Physical Review B, 2012, 86, .	3.2	22
97	High pressure structural study of Î²-Ti3O5: X-ray diffraction and Raman spectroscopy. Journal of Solid State Chemistry, 2012, 192, 356-359.	2.9	31
98	A nine-fold coordinated vanadium by oxygen in V2O3 from first-principles calculations. European Physical Journal B, 2012, 85, 1.	1.5	5
99	A re-investigation on pressure-induced phase transition of Mg2Si. Solid State Communications, 2012, 152, 2160-2164.	1.9	14
100	High-T_cferromagnetism in a Co-doped ZnO system dominated by the formation of a zinc-blende type Co-rich ZnCoO phase. Chemical Communications, 2012, 48, 91-93.	4.1	30
101	Pressure-induced phase transition of Fe2TiO4: X-ray diffraction and MÃ¶ssbauer spectroscopy. Journal of Solid State Chemistry, 2012, 185, 72-75.	2.9	9
102	First-principles investigation on high-pressure structural evolution of MnTiO3. Solid State Communications, 2012, 152, 984-988.	1.9	6
103	High-pressure behavior of iron carbide (Fe₇C₃) at inner core conditions. Journal of Geophysical Research, 2011, 116, .	3.3	75
104	Elasticity and anisotropy of iron-nickel phosphides at high pressures. Geophysical Research Letters, 2011, 38, n/a-n/a.	4.0	6
105	Investigation into high-pressure behavior of MnTiO3: X-ray diffraction and Raman spectroscopy with diamond anvil cells. Geoscience Frontiers, 2011, 2, 107-114.	8.4	26
106	In situ high-pressure study of FeP: Implications for planetary cores. Physics of the Earth and Planetary Interiors, 2011, 184, 154-159.	1.9	24
107	Structural and elastic properties of CaGeO3 perovskite at high pressures. Physics of the Earth and Planetary Interiors, 2011, 189, 151-156.	1.9	15
108	Raman spectra and X-ray diffraction of tuite at various temperatures. Physics and Chemistry of Minerals, 2011, 38, 639-646.	0.8	17

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109	In situ high-pressure X-ray diffraction experiments and ab initio calculations of Co 2 P. Chinese Physics B, 2011, 20, 066101.	1.4	2
110	High pressure X-ray diffraction study of SrMnO 3 perovskite. Chinese Physics C, 2011, 35, 514-518.	3.7	3
111	First-principles calculations of the structural stability of Fe₂P. Journal of Physics: Conference Series, 2010, 215, 012110.	0.4	12
112	Highâ€pressure Raman spectra of tuite, Î³â€Ca₃(PO₄)₂. Journal of Raman Spectroscopy, 2010, 41, 1011-1013.	2.5	26
113	Structural characterization of the FeTiO3â€“MnTiO3 solid solution. Journal of Solid State Chemistry, 2010, 183, 2483-2489.	2.9	29
114	X-ray diffraction study of -Ca3(PO4)2 at high pressure. Solid State Communications, 2010, 150, 443-445.	1.9	15
115	Structural stability of a golden semiconducting orthorhombic polymorph of Ti₂O₃under high pressures and high temperatures. Journal of Physics Condensed Matter, 2010, 22, 375402.	1.8	37
116	Structural stability of TiO2at high pressure in density-functional theory based calculations. Journal of Physics Condensed Matter, 2010, 22, 295501.	1.8	30
117	High-pressure powder x-ray diffraction experiments andab initiocalculation of Ti3AlC2. Journal of Applied Physics, 2009, 106, .	2.5	15
118	Generalized gradient approximation calculations of the pressure-induced phase transition of YAlO3perovskite. Journal of Physics Condensed Matter, 2006, 18, 3907-3916.	1.8	15
119	First-principles study of structural stabilities, and electronic and optical properties ofCaF2under high pressure. Physical Review B, 2006, 73, .	3.2	48
120	First-principles study of the pressure-induced phase transition in CaTiO3. Solid State Communications, 2005, 136, 416-420.	1.9	32
121	Pressure-induced phase transformation in controlled shape ZnO nanorods. Solid State Communications, 2005, 135, 780-784.	1.9	32
122	Micro-Raman study of perovskites in the CaTiO3â€“SrTiO3system. Dalton Transactions RSC, 2002, , 3751-3755.	2.3	52