

Hiroshi Yamawaki

List of Publications by Year in descending order

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80
papers

2,513
citations

201674

27
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197818

49
g-index

81
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81
docs citations

81
times ranked

2621
citing authors

#	ARTICLE	IF	CITATIONS
1	Distinct Responses to Mechanical Grinding and Hydrostatic Pressure in Luminescent Chromism of Tetrathiazolylthiophene. Journal of the American Chemical Society, 2013, 135, 10322-10325.	13.7	451
2	Infrared absorption study of the hydrogen-bond symmetrization in ice to 110 GPa. Physical Review B, 1996, 54, 15673-15677.	3.2	173
3	O8Cluster Structure of the Epsilon Phase of Solid Oxygen. Physical Review Letters, 2006, 97, 085503.	7.8	115
4	Crystal Structure of the High-Pressure Phase of Solid CO ₂ . Science, 1994, 263, 356-358.	12.6	112
5	Infrared study of vibrational property and polymerization of fullerene C ₆₀ and C ₇₀ under pressure. The Journal of Physical Chemistry, 1993, 97, 11161-11163.	2.9	108
6	Nondestructive Imaging of Anomalously Preserved Methane Clathrate Hydrate by Phase Contrast X-ray Imaging. Journal of Physical Chemistry C, 2011, 115, 16193-16199.	3.1	82
7	Pressure-Induced Molecular Dissociation and Metallization in Hydrogen-Bonded H ₂ S Solid. Physical Review Letters, 1997, 79, 1082-1085.	7.8	71
8	Pressure dependence of the optical absorption spectra of single-walled carbon nanotube films. Physical Review B, 2000, 62, 1643-1646.	3.2	71
9	FT-IR Study of the Solid State Polymerization of Acetylene under Pressure. The Journal of Physical Chemistry, 1996, 100, 9943-9947.	2.9	69
10	Infrared absorption study of Fermi resonance and hydrogen-bond symmetrization of ice up to 141 GPa. Physical Review B, 1999, 60, 12644-12650.	3.2	68
11	Pressure-Tuned Fermi Resonance in Ice VII. Science, 1995, 268, 1322-1324.	12.6	66
12	Observation of Fano Interference in High-Pressure Ice VII. Physical Review Letters, 1996, 76, 784-786.	7.8	57
13	Incommensurate composite crystal structure of scandium-II. Physical Review B, 2005, 72, .	3.2	57
14	Infrared investigation on ice VIII and the phase diagram of dense ices. Physical Review B, 2003, 68, .	3.2	55
15	Incommensurate Structure of Phosphorus Phase IV. Physical Review Letters, 2007, 98, .	7.8	51
16	Binary Ethanol- ¹³ C-Methane Clathrate Hydrate Formation in the System CH ₄ -C ₂ H ₅ OH-H ₂ O: Confirmation of Structure II Hydrate Formation. Journal of Physical Chemistry C, 2009, 113, 12598-12601.	3.1	51
17	Protonic Diffusion in High-Pressure Ice VII. Science, 2002, 295, 1264-1266.	12.6	47
18	Structures of H ₂ S: α , β and IV under high pressure. Physical Review B, 1998, 57, 2651-2654.	3.2	42

#	ARTICLE	IF	CITATIONS
19	Optical properties of semiconducting and metallic single wall carbon nanotubes: effects of doping and high pressure. <i>Synthetic Metals</i> , 2001, 116, 405-409.	3.9	42
20	Spiral chain structure of high pressureselenium and sulfur from powder x-ray diffraction. <i>Physical Review B</i> , 2004, 70, .	3.2	42
21	Molecular dissociation and two low-temperature high-pressure phases of H ₂ S. <i>Physical Review B</i> , 2004, 69, .	3.2	40
22	Raman and infrared study of phase transitions in solid HBr under pressure. <i>Physical Review B</i> , 1999, 59, 11244-11250.	3.2	39
23	Ca-VII: A Chain Ordered Host-Guest Structure of Calcium above 210 GPa. <i>Physical Review Letters</i> , 2013, 110, 235501.	7.8	38
24	Crystal Structure of the High-Pressure Phase of Hexahydro-1,3,5-trinitro-1,3,5-triazine (β -RDX). <i>Journal of Physical Chemistry B</i> , 2006, 110, 23655-23659.	2.6	36
25	Direct transformation of graphite to cubic diamond observed in a laser-heated diamond anvil cell. <i>Applied Physics Letters</i> , 1998, 72, 1843-1845.	3.3	31
26	Phase study of solid CO ₂ to 20 GPa by infrared-absorption spectroscopy. <i>Physical Review B</i> , 1993, 48, 9231-9234.	3.2	28
27	Hydrogen-bond symmetrization and molecular dissociation in hydrogen halides. <i>Physica B: Condensed Matter</i> , 1999, 265, 83-86.	2.7	27
28	High pressure FT-IR study of solid carbon molecule (C ₆₀). <i>The Journal of Physical Chemistry</i> , 1991, 95, 9037-9039.	2.9	26
29	Raman study of phase transition and hydrogen bond symmetrization in solid DCl at high pressure. <i>Physical Review B</i> , 2000, 61, 119-124.	3.2	25
30	Axial ratio of Zn at high pressure and low temperature. <i>Physical Review B</i> , 2002, 65, .	3.2	23
31	Infrared observation of the phase transitions of ice at low temperatures and pressures up to 50 GPa and the metastability of low-temperature ice VII. <i>Physical Review B</i> , 2003, 68, .	3.2	22
32	Characterization of the Clathrate Hydrate Formed with Methane and Propan-1-ol. <i>Industrial & Engineering Chemistry Research</i> , 2009, 48, 9335-9337.	3.7	21
33	Crystal structure of anhydrous 5-aminotetrazole and its high-pressure behavior. <i>CrystEngComm</i> , 2011, 13, 99-102.	2.6	21
34	Infrared absorption spectra of the high-pressure phases of cristobalite and their coordination numbers of silicon atoms. <i>Solid State Communications</i> , 1994, 89, 945-948.	1.9	20
35	High-pressure phase transitions of solid H ₂ S probed by Fourier-transform infrared spectroscopy. <i>Physical Review B</i> , 1997, 55, 5538-5541.	3.2	20
36	Infrared spectroscopic study of H ₂ O and D ₂ O mixed ice up to 100 GPa. <i>Physical Review B</i> , 2000, 62, 2976-2979.	3.2	18

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37	Phase Transition of a Structureâ€¦II Cubic Clathrate Hydrate to a Tetragonal Form. Angewandte Chemie - International Edition, 2016, 55, 9287-9291.	13.8	17
38	Infrared study of phase transition and chemical reaction in tetracyanoethylene under high pressure. Chemical Physics Letters, 1992, 198, 183-187.	2.6	16
39	Molecular Dissociation in Deuterium Sulfide under High Pressure:Â Infrared and Raman Study. Journal of Physical Chemistry A, 2000, 104, 8838-8842.	2.5	16
40	Formation of LiBH ₄ hydrate with dihydrogen bonding. Journal of Alloys and Compounds, 2012, 541, 111-114.	5.5	16
41	Reversible phase transition between the metastable phases of tetracyanoethylene under high pressure. Physical Review B, 1996, 53, 11403-11407.	3.2	13
42	Intermolecular CHâ€O hydrogen bonds in formyl-substituted diphenylhexatriene, a [2+2] photoreactive organic solid: Crystal structure and IR, NMR spectroscopic evidence. Journal of Molecular Structure, 2011, 1006, 366-374.	3.6	12
43	High-pressure Raman study of a polar molecule, acetonitrile. Chemical Physics Letters, 1990, 169, 77-80.	2.6	11
44	Observation of Dihydrogen Bonds in High-Pressure Phases of Ammonia Borane by X-ray and Neutron Diffraction Measurements. Inorganic Chemistry, 2021, 60, 3065-3073.	4.0	11
45	High-pressure powder x-ray diffraction experiments on Zn at low temperature. Journal of Physics Condensed Matter, 2002, 14, 10563-10568.	1.8	9
46	High-Pressure X-ray Studies of Zn at Room and Low Temperatures with a He-Pressure Medium. High Pressure Research, 2002, 22, 337-341.	1.2	8
47	Structural Analysis of Some High-Pressure Stable and Metastable Phases in Lithium Borohydride LiBH ₄ . Journal of Physical Chemistry C, 2015, 119, 3911-3917.	3.1	8
48	High-Pressure Transformations and Ionic Conductivity in Low-Z Complex Hydride LiBH ₄ . Review of High Pressure Science and Technology/Koatsuryoku No Kagaku To Gijutsu, 2011, 21, 213-220.	0.0	7
49	Formation of large carbon cluster ions at graphite (HOPG) surfaces by laser irradiation. Applied Surface Science, 1996, 96-98, 267-271.	6.1	6
50	Hexaaquairon(II) dipicrate dihydrate. Acta Crystallographica Section C: Crystal Structure Communications, 2003, 59, m319-m321.	0.4	6
51	Powder X-ray diffraction study of the volume change of ice VIII under high pressure. Physica B: Condensed Matter, 2004, 344, 260-264.	2.7	6
52	Vibrational spectra of CsHSO ₄ at high pressure and high temperature. Physical Review B, 2007, 75, .	3.2	6
53	Vibrational and structural study in phase I of Rb ₃ H(SO ₄) ₂ . Physica B: Condensed Matter, 2010, 405, 291-295.	2.7	6
54	Viscosity measurements of high-pressure liquids via a quartz crystal fundamental resonance. Journal of Applied Physics, 2020, 127, 094701.	2.5	6

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55	Chemical Reactions and Other Behaviors of High Energetic Materials under Static Ultrahigh Pressures. <i>Materials Science Forum</i> , 2004, 465-466, 189-194.	0.3	5
56	Phase-Contrast X-ray Images of Ice and Water on Carbon Paper for Fuel Cells Measured by Diffraction-Enhanced Imaging Technique. <i>Japanese Journal of Applied Physics</i> , 2013, 52, 048002.	1.5	5
57	Structure of Intermediate Phase II of LiNH_2 under High Pressure. <i>Journal of Physical Chemistry B</i> , 2014, 118, 9991-9996.	2.6	5
58	Phase boundaries and molar volumes of high-temperature and high-pressure phase V of LiBH_4 . <i>Journal of Physics and Chemistry of Solids</i> , 2015, 76, 40-44.	4.0	5
59	Phase Transition of a Structure-II Cubic Clathrate Hydrate to a Tetragonal Form. <i>Angewandte Chemie</i> , 2016, 128, 9433-9437.	2.0	5
60	Pressure Dependence of Bis(2-ethylhexyl) Sebacate and VG32 Hydraulic Oil Viscosities Using a Quartz Crystal Resonator. <i>International Journal of Thermophysics</i> , 2018, 39, 1.	2.1	5
61	Pressure Dependence of Viscosity for Methyl Oleate and Methyl Linoleate up to 400 MPa. <i>International Journal of Thermophysics</i> , 2020, 41, 1.	2.1	5
62	Infrared spectra of the $\hat{\Gamma}^2$ and $\hat{\Gamma}^3$ phases of oleic acid under high pressure. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2022, 265, 120290.	3.9	5
63	Changes in structure and proton conductivity at II-III phase transition of $\text{Rb}_3\text{H}(\text{SO}_4)_2$. <i>Solid State Ionics</i> , 2010, 181, 567-571.	2.7	4
64	Thermal Decomposition of Pentaerythritol Tetranitrate under Static High Pressure. <i>Propellants, Explosives, Pyrotechnics</i> , 2013, 38, 394-398.	1.6	4
65	High-pressure spectroscopic measurement on diffusion with a diamond-anvil cell. <i>Review of Scientific Instruments</i> , 2003, 74, 2472-2476.	1.3	3
66	Responses of a Quartz Crystal Resonator Against Viscosity of Liquid up to 700 MPa. <i>International Journal of Thermophysics</i> , 2017, 38, 1.	2.1	3
67	Raman spectroscopy of solid-phase n-dodecane and methyl oleate under high pressure. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2020, 227, 117756.	3.9	3
68	Performance of the discrete electrode railgun. <i>IEEE Transactions on Magnetics</i> , 1991, 27, 611-616.	2.1	2
69	High-Pressure FT-IR Spectra of Liquid and Crystalline CH_2F_2 up to 13 GPa. <i>Journal of the Physical Society of Japan</i> , 1995, 64, 1038-1039.	1.6	2
70	Mutual incommensurability and interlayer interaction in $(\text{MX})_x\text{TX}_2$ -type ternary chalcogenides with layered composite crystal structure. <i>Physica B: Condensed Matter</i> , 1997, 237-238, 177-178.	2.7	2
71	Hexaaquazinc(II) dipicrate trihydrate. <i>Acta Crystallographica Section C: Crystal Structure Communications</i> , 2007, 63, m423-m426.	0.4	2
72	Infrared study on crystalline and amorphous phases of 2-propyn-1-ol under high pressure. <i>Physica B: Condensed Matter</i> , 2005, 369, 44-50.	2.7	1

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73	Infrared study of protonâ€“deuteron mutual diffusion in a CsHSO4/CsDSO4 solid under high pressure. Physica B: Condensed Matter, 2008, 403, 2643-2648.	2.7	1
74	Phase changes in lithium amideâ€“borohydride complexes under high pressure. Solid State Ionics, 2014, 262, 490-494.	2.7	1
75	Single composite crystal structure analysis of incommensurate spin-ladder compound Sr2.5Ca11.5Cu24O41. Physica C: Superconductivity and Its Applications, 2010, 470, S219-S220.	1.2	0
76	Reinvestigation of Crystal Structures of Hydrogen Sulfide under High Pressure. Review of High Pressure Science and Technology/Koatsuryoku No Kagaku To Gijutsu, 2018, 28, 260-267.	0.0	0
77	Intensity analysis for high-pressure powder diffraction using diamond anvil cells. Acta Crystallographica Section A: Foundations and Advances, 1996, 52, C545-C545.	0.3	0
78	X-ray diffraction study of pressure-induced polymerization in simple molecules with triple bonds. Acta Crystallographica Section A: Foundations and Advances, 1996, 52, C532-C532.	0.3	0
79	High Pressure Solid State Polymerization. Springer Series in Materials Science, 1999, , 33-40.	0.6	0
80	Dependence of the Viscosity of Bromobenzene on Pressure Up to 400ÂMPa. International Journal of Thermophysics, 2022, 43, .	2.1	0