

# Hiroshi Yamawaki

## List of Publications by Year in descending order

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80  
papers

2,513  
citations

201575

27  
h-index

197736

49  
g-index

81  
all docs

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. <i>Journal of the American Chemical Society</i> , 2013, 135, 10322-10325.	6.6	451
2	Infrared absorption study of the hydrogen-bond symmetrization in ice to 110 GPa. <i>Physical Review B</i> , 1996, 54, 15673-15677.	1.1	173
3	O8Cluster Structure of the Epsilon Phase of Solid Oxygen. <i>Physical Review Letters</i> , 2006, 97, 085503.	2.9	115
4	Crystal Structure of the High-Pressure Phase of Solid CO <sub>2</sub> . <i>Science</i> , 1994, 263, 356-358.	6.0	112
5	Infrared study of vibrational property and polymerization of fullerene C <sub>60</sub> and C <sub>70</sub> under pressure. <i>The Journal of Physical Chemistry</i> , 1993, 97, 11161-11163.	2.9	108
6	Nondestructive Imaging of Anomalously Preserved Methane Clathrate Hydrate by Phase Contrast X-ray Imaging. <i>Journal of Physical Chemistry C</i> , 2011, 115, 16193-16199.	1.5	82
7	Pressure-Induced Molecular Dissociation and Metallization in Hydrogen-Bonded H <sub>2</sub> S Solid. <i>Physical Review Letters</i> , 1997, 79, 1082-1085.	2.9	71
8	Pressure dependence of the optical absorption spectra of single-walled carbon nanotube films. <i>Physical Review B</i> , 2000, 62, 1643-1646.	1.1	71
9	FT-IR Study of the Solid State Polymerization of Acetylene under Pressure. <i>The Journal of Physical Chemistry</i> , 1996, 100, 9943-9947.	2.9	69
10	Infrared absorption study of Fermi resonance and hydrogen-bond symmetrization of ice up to 141 GPa. <i>Physical Review B</i> , 1999, 60, 12644-12650.	1.1	68
11	Pressure-Tuned Fermi Resonance in Ice VII. <i>Science</i> , 1995, 268, 1322-1324.	6.0	66
12	Observation of Fano Interference in High-Pressure Ice VII. <i>Physical Review Letters</i> , 1996, 76, 784-786.	2.9	57
13	Incommensurate composite crystal structure of scandium-II. <i>Physical Review B</i> , 2005, 72, .	1.1	57
14	Infrared investigation on ice VIII and the phase diagram of dense ices. <i>Physical Review B</i> , 2003, 68, .	1.1	55
15	Incommensurate Structure of Phosphorus Phase IV. <i>Physical Review Letters</i> , 2007, 98, .	2.9	51
16	Binary Ethanol-Methane Clathrate Hydrate Formation in the System CH <sub>4</sub> -C <sub>2</sub> H <sub>5</sub> OH-H <sub>2</sub> O: Confirmation of Structure II Hydrate Formation. <i>Journal of Physical Chemistry C</i> , 2009, 113, 12598-12601.	1.5	51
17	Protonic Diffusion in High-Pressure Ice VII. <i>Science</i> , 2002, 295, 1264-1266.	6.0	47
18	Structures of H <sub>2</sub> S, Phases II and IV under high pressure. <i>Physical Review B</i> , 1998, 57, 2651-2654.	1.1	42

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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.	2.1	42
20	Spiral chain structure of high pressure selenium and sulfur from powder x-ray diffraction. <i>Physical Review B</i> , 2004, 70, .	1.1	42
21	Molecular dissociation and two low-temperature high-pressure phases of H <sub>2</sub> S. <i>Physical Review B</i> , 2004, 69, .	1.1	40
22	Raman and infrared study of phase transitions in solid HBr under pressure. <i>Physical Review B</i> , 1999, 59, 11244-11250.	1.1	39
23	Ca-VII: A Chain Ordered Host-Guest Structure of Calcium above 210 GPa. <i>Physical Review Letters</i> , 2013, 110, 235501.	2.9	38
24	Crystal Structure of the High-Pressure Phase of Hexahydro-1,3,5-trinitro-1,3,5-triazine ( <sup>3</sup> -RDX). <i>Journal of Physical Chemistry B</i> , 2006, 110, 23655-23659.	1.2	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.	1.5	31
26	Phase study of solid CO <sub>2</sub> to 20 GPa by infrared-absorption spectroscopy. <i>Physical Review B</i> , 1993, 48, 9231-9234.	1.1	28
27	Hydrogen-bond symmetrization and molecular dissociation in hydrogen halides. <i>Physica B: Condensed Matter</i> , 1999, 265, 83-86.	1.3	27
28	High pressure FT-IR study of solid carbon molecule (C <sub>60</sub> ). <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.	1.1	25
30	Axial ratio of Zn at high pressure and low temperature. <i>Physical Review B</i> , 2002, 65, .	1.1	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, .	1.1	22
32	Characterization of the Clathrate Hydrate Formed with Methane and Propan-1-ol. <i>Industrial &amp; Engineering Chemistry Research</i> , 2009, 48, 9335-9337.	1.8	21
33	Crystal structure of anhydrous 5-aminotetrazole and its high-pressure behavior. <i>CrystEngComm</i> , 2011, 13, 99-102.	1.3	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.	0.9	20
35	High-pressure phase transitions of solid H <sub>2</sub> S probed by Fourier-transform infrared spectroscopy. <i>Physical Review B</i> , 1997, 55, 5538-5541.	1.1	20
36	Infrared spectroscopic study of H <sub>2</sub> O and D <sub>2</sub> O mixed ice up to 100 GPa. <i>Physical Review B</i> , 2000, 62, 2976-2979.	1.1	18

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37	Phase Transition of a Structure of Cubic Clathrate Hydrate to a Tetragonal Form. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 9287-9291.	7.2	17
38	Infrared study of phase transition and chemical reaction in tetracyanoethylene under high pressure. <i>Chemical Physics Letters</i> , 1992, 198, 183-187.	1.2	16
39	Molecular Dissociation in Deuterium Sulfide under High Pressure: An Infrared and Raman Study. <i>Journal of Physical Chemistry A</i> , 2000, 104, 8838-8842.	1.1	16
40	Formation of LiBH <sub>4</sub> hydrate with dihydrogen bonding. <i>Journal of Alloys and Compounds</i> , 2012, 541, 111-114.	2.8	16
41	Reversible phase transition between the metastable phases of tetracyanoethylene under high pressure. <i>Physical Review B</i> , 1996, 53, 11403-11407.	1.1	13
42	Intermolecular CH <sub>2</sub> O hydrogen bonds in formyl-substituted diphenylhexatriene, a [2+2] photoreactive organic solid: Crystal structure and IR, NMR spectroscopic evidence. <i>Journal of Molecular Structure</i> , 2011, 1006, 366-374.	1.8	12
43	High-pressure Raman study of a polar molecule, acetonitrile. <i>Chemical Physics Letters</i> , 1990, 169, 77-80.	1.2	11
44	Observation of Dihydrogen Bonds in High-Pressure Phases of Ammonia Borane by X-ray and Neutron Diffraction Measurements. <i>Inorganic Chemistry</i> , 2021, 60, 3065-3073.	1.9	11
45	High-pressure powder x-ray diffraction experiments on Zn at low temperature. <i>Journal of Physics Condensed Matter</i> , 2002, 14, 10563-10568.	0.7	9
46	High-Pressure X-ray Studies of Zn at Room and Low Temperatures with a He-Pressure Medium. <i>High Pressure Research</i> , 2002, 22, 337-341.	0.4	8
47	Structural Analysis of Some High-Pressure Stable and Metastable Phases in Lithium Borohydride LiBH <sub>4</sub> . <i>Journal of Physical Chemistry C</i> , 2015, 119, 3911-3917.	1.5	8
48	High-Pressure Transformations and Ionic Conductivity in Low-Z Complex Hydride LiBH <sub>4</sub> . <i>Review of High Pressure Science and Technology/Koatsuryoku No Kagaku To Gijutsu</i> , 2011, 21, 213-220.	0.1	7
49	Formation of large carbon cluster ions at graphite (HOPG) surfaces by laser irradiation. <i>Applied Surface Science</i> , 1996, 96-98, 267-271.	3.1	6
50	Hexaaquairon(II) dipicrate dihydrate. <i>Acta Crystallographica Section C: Crystal Structure Communications</i> , 2003, 59, m319-m321.	0.4	6
51	Powder X-ray diffraction study of the volume change of ice VIII under high pressure. <i>Physica B: Condensed Matter</i> , 2004, 344, 260-264.	1.3	6
52	Vibrational spectra of CsHSO <sub>4</sub> at high pressure and high temperature. <i>Physical Review B</i> , 2007, 75, .	1.1	6
53	Vibrational and structural study in phase I of Rb <sub>3</sub> H(SO <sub>4</sub> ) <sub>2</sub> . <i>Physica B: Condensed Matter</i> , 2010, 405, 291-295.	1.3	6
54	Viscosity measurements of high-pressure liquids via a quartz crystal fundamental resonance. <i>Journal of Applied Physics</i> , 2020, 127, 094701.	1.1	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.	0.8	5
57	Structure of Intermediate Phase II of $\text{LiNH}_2$ under High Pressure. <i>Journal of Physical Chemistry B</i> , 2014, 118, 9991-9996.	1.2	5
58	Phase boundaries and molar volumes of high-temperature and high-pressure phase V of $\text{LiBH}_4$ . <i>Journal of Physics and Chemistry of Solids</i> , 2015, 76, 40-44.	1.9	5
59	Phase Transition of a Structure II Cubic Clathrate Hydrate to a Tetragonal Form. <i>Angewandte Chemie</i> , 2016, 128, 9433-9437.	1.6	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.	1.0	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.	1.0	5
62	Infrared spectra of the $\hat{I}^2$ and $\hat{I}^3$ phases of oleic acid under high pressure. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2022, 265, 120290.	2.0	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.	1.3	4
64	Thermal Decomposition of Pentaerythritol Tetranitrate under Static High Pressure. <i>Propellants, Explosives, Pyrotechnics</i> , 2013, 38, 394-398.	1.0	4
65	High-pressure spectroscopic measurement on diffusion with a diamond-anvil cell. <i>Review of Scientific Instruments</i> , 2003, 74, 2472-2476.	0.6	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.	1.0	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.	2.0	3
68	Performance of the discrete electrode railgun. <i>IEEE Transactions on Magnetics</i> , 1991, 27, 611-616.	1.2	2
69	High-Pressure FT-IR Spectra of Liquid and Crystalline $\text{CH}_2\text{F}_2$ up to 13 GPa. <i>Journal of the Physical Society of Japan</i> , 1995, 64, 1038-1039.	0.7	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.	1.3	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.	1.3	1

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73	Infrared study of protonâ€“deuteron mutual diffusion in a CsHSO <sub>4</sub> /CsDSO <sub>4</sub> solid under high pressure. <i>Physica B: Condensed Matter</i> , 2008, 403, 2643-2648.	1.3	1
74	Phase changes in lithium amideâ€“borohydride complexes under high pressure. <i>Solid State Ionics</i> , 2014, 262, 490-494.	1.3	1
75	Single composite crystal structure analysis of incommensurate spin-ladder compound Sr <sub>2.5</sub> Ca <sub>11.5</sub> Cu <sub>24</sub> O <sub>41</sub> . <i>Physica C: Superconductivity and Its Applications</i> , 2010, 470, S219-S220.	0.6	0
76	Reinvestigation of Crystal Structures of Hydrogen Sulfide under High Pressure. <i>Review of High Pressure Science and Technology/Koatsuryoku No Kagaku To Gijutsu</i> , 2018, 28, 260-267.	0.1	0
77	Intensity analysis for high-pressure powder diffraction using diamond anvil cells. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 1996, 52, C545-C545.	0.3	0
78	X-ray diffraction study of pressure-induced polymerization in simple molecules with triple bonds. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 1996, 52, C532-C532.	0.3	0
79	High Pressure Solid State Polymerization. <i>Springer Series in Materials Science</i> , 1999, , 33-40.	0.4	0
80	Dependence of the Viscosity of Bromobenzene on Pressure Up to 400ÂMPa. <i>International Journal of Thermophysics</i> , 2022, 43, .	1.0	0