

Takahiro Matsuoka

List of Publications by Year in descending order

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Version: 2024-02-01

68
papers

1,279
citations

430442

18
h-index

360668

35
g-index

69
all docs

69
docs citations

69
times ranked

1258
citing authors

#	ARTICLE	IF	CITATIONS
1	Direct observation of a pressure-induced metal-to-semiconductor transition in lithium. Nature, 2009, 458, 186-189.	13.7	228
2	Superconductivity of Ca Exceeding 25 K at Megabar Pressures. Journal of the Physical Society of Japan, 2006, 75, 083703.	0.7	119
3	Superconducting state of Ca-VII below a critical temperature of 29 K at a pressure of 216 GPa. Physical Review B, 2011, 83, .	1.1	80
4	Phase boundary of hot dense fluid hydrogen. Scientific Reports, 2015, 5, 16560.	1.6	72
5	Pressure-Induced Superconducting State of Europium Metal at Low Temperatures. Physical Review Letters, 2009, 102, 197002.	2.9	62
6	Pressure-induced reentrant metallic phase in lithium. Physical Review B, 2014, 89, .	1.1	52
7	Ca-VI: A high-pressure phase of calcium above 158 GPa. Physical Review B, 2010, 81, .	1.1	39
8	Ca-VII: A Chain Ordered Host-Guest Structure of Calcium above 210 ÅGPa. Physical Review Letters, 2013, 110, 235501.	2.9	38
9	Superconductivity in highly disordered dense carbon disulfide. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 11720-11724.	3.3	36
10	Generation of Multi-Megabar Pressure Using Nano-Polycrystalline Diamond Anvils. Japanese Journal of Applied Physics, 2007, 46, L640-L641.	0.8	34
11	Structural and Valence Changes of Europium Hydride Induced by Application of High-Pressure $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mi} \text{mathvariant="normal"} \rangle \text{H} \langle \text{mml:mi} \rangle \langle \text{mml:mn} \rangle 2 \langle \text{mml:mn} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:math} \rangle$. Physical Review Letters, 2011, 107, 025501.	2.9	34
12	Hydrogen-induced modification of the electronic structure and magnetic states in Fe, Co, and Ni monohydrides. Physical Review B, 2012, 86, .	1.1	29
13	Paramagnetism with anomalously large magnetic susceptibility in $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mi} \rangle \hat{I}^2 \langle \text{mml:mi} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:math} \rangle$ (fcc)-cobalt probed by x-ray magnetic circular dichroism up to 170 GPa. Physical Review B, 2011, 83, .	1.1	28
14	Note: High-pressure generation using nano-polycrystalline diamonds as anvil materials. Review of Scientific Instruments, 2011, 82, 066104.	0.6	27
15	Pressure-Induced Superconductivity in $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mi} \rangle \text{CaLi} \langle \text{mml:mi} \rangle \langle \text{mml:mn} \rangle 2 \langle \text{mml:mn} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:math} \rangle$. Physical Review Letters, 2008, 100, 197003.	2.9	26
16	Different routes to pressure-induced volume collapse transitions in gadolinium and terbium metals. Physical Review B, 2013, 88, .	1.1	23
17	Superconductivity of platinum hydride. Physical Review B, 2019, 99, .	1.1	23
18	Superconductivity and crystal structure of lithium under high pressure. Journal of Physics: Conference Series, 2008, 121, 052003.	0.3	20

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19	Pressure-induced superconducting state in crystalline boron nanowires. <i>Physical Review B</i> , 2009, 79, .	1.1	18
20	Phase changes of filled ice Ih methane hydrate under low temperature and high pressure. <i>Journal of Chemical Physics</i> , 2013, 139, 104701.	1.2	18
21	Cryogenic implementation of charging diamond anvil cells with H ₂ and D ₂ . <i>Review of Scientific Instruments</i> , 2011, 82, 105109.	0.6	16
22	Large amplitude fluxional behaviour of elemental calcium under high pressure. <i>Scientific Reports</i> , 2012, 2, 372.	1.6	16
23	Mixing unmixables: Unexpected formation of Li-Cs alloys at low pressure. <i>Science Advances</i> , 2015, 1, e1500669.	4.7	16
24	Structural changes of filled ice Ic hydrogen hydrate under low temperatures and high pressures from 5 to 50 GPa. <i>Journal of Chemical Physics</i> , 2012, 137, 074505.	1.2	15
25	High pressure X-ray diffraction and Raman spectroscopic studies of the phase change of D ₂ O ice VII at approximately 11 ÅGPa. <i>High Pressure Research</i> , 2014, 34, 289-296.	0.4	15
26	Measurement of Electrical Resistance and Raman Spectrum of ¹¹ B-Boron under High Pressure. <i>Journal of the Physical Society of Japan</i> , 2007, 76, 19-20.	0.7	14
27	Pressure-induced polyamorphism in a main-group metallic glass. <i>Physical Review B</i> , 2016, 94, .	1.1	14
28	Superconductivity under high pressure in the binary compound CaLi . <i>Physical Review B</i> , 2008, 78, .	1.1	13
29	Crystal Structure and Electrical Property of Calcium under Very High Pressure. <i>Journal of the Physical Society of Japan</i> , 2007, 76, 25-26.	0.7	12
30	Pressure-induced superconductivity in europium metal. <i>Journal of Physics: Conference Series</i> , 2010, 215, 012034.	0.3	10
31	Structural and electrical transport properties of FeH _x under high pressures and low temperatures. <i>High Pressure Research</i> , 2011, 31, 64-67.	0.4	9
32	Pressure-Induced Metallization of Yttrium Trihydride, YH ₃ . <i>Journal of the Physical Society of Japan</i> , 2012, 81, SB041.	0.7	9
33	High pressure–low temperature phase diagram of barium: Simplicity versus complexity. <i>Applied Physics Letters</i> , 2015, 107, .	1.5	9
34	Phase diagram of the Eu–H system at high temperatures and high hydrogen pressures. <i>Solid State Communications</i> , 2015, 205, 24-27.	0.9	9
35	In situ synchrotron ⁵⁷ Fe Mössbauer spectroscopy of RFe ₂ (R=Y,Gd) hydrides synthesized under ultra-high-pressure hydrogen. <i>Journal of Alloys and Compounds</i> , 2013, 580, S264-S267.	2.8	8
36	Electrical Properties of YH ₃ under High Pressure. <i>Journal of the Physical Society of Japan</i> , 2007, 76, 86-87.	0.7	7

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37	A possible existence of phase change of deuterated ice VII at about 11 GPa by X-ray and Raman studies. Journal of Physics: Conference Series, 2014, 500, 182017.	0.3	7
38	Lithium polyhydrides synthesized under high pressure and high temperature. Journal of Raman Spectroscopy, 2017, 48, 1222-1228.	1.2	7
39	Pressure Dependence of the Superconductivity in Strontium. Journal of the Physical Society of Japan, 2007, 76, 23-24.	0.7	6
40	Vibrational properties of Ba ₈ Ga ₁₆ Sn ₃₀ under high pressure. Journal of Physics: Conference Series, 2014, 500, 182022.	0.3	6
41	Heating of Li in hydrogen: possible synthesis of LiH _x . High Pressure Research, 2015, 35, 16-21.	0.4	6
42	The phase transition of CuCrZrS ₄ at high pressure. Physica B: Condensed Matter, 2005, 359-361, 1213-1215.	1.3	5
43	Metallization of solid iodine in phase I: X-ray diffraction measurements, electrical resistance measurements, and <i>ab initio</i> calculations. High Pressure Research, 2013, 33, 186-190.	0.4	5
44	Magnetic State in Iron Hydride Under Pressure Studied by X-ray Magnetic Circular Dichroism at the FeK-edge. Materials Research Society Symposia Proceedings, 2010, 1262, 1.	0.1	4
45	Pressure-Induced Insulator to Metal Transition in Two-Dimensional Mott Insulator NiPS ₃ . Journal of the Physical Society of Japan, 2021, 90, .	0.7	4
46	Symmetry progression and possible polar metallicity in NiPS ₃ under pressure. Npj 2D Materials and Applications, 2022, 6, .	3.9	4
47	Electrical and structural properties of YHx (x ^{1/4} 3) under high pressure. High Pressure Research, 2006, 26, 391-394.	0.4	3
48	High-pressure generation using high-purity synthetic type Ila diamond anvils. High Pressure Research, 2008, 28, 217-223.	0.4	3
49	Crystal Structure and Superconductivity of \hat{I}^2 -Pyrochlore Oxides under High Pressure. Journal of the Physical Society of Japan, 2011, 80, SA041.	0.7	3
50	Beryllium polyhydride BeH_8 synthesized at high pressure and temperature. Physical Review Materials, 2020, 4, .	0.3	2
51	Magnetic States in Fe, Co, Ni hydrides under High Pressure Probed by X-ray Magnetic circular dichroism. Journal of Physics: Conference Series, 2012, 377, 012041.	0.3	2
52	High-Pressure-Hydrogen-Induced Spin Reconfiguration in GdFe ₂ Observed by ⁵⁷ Fe-Polarized Synchrotron Radiation Mössbauer Spectroscopy with Nuclear Bragg Monochromator. Journal of the Physical Society of Japan, 2016, 85, 123707.	0.7	2
53	Structural phase transition of potassium under high-pressure and low-temperature condition. Journal of Physics: Conference Series, 2017, 950, 042020.	0.3	2
54	Pressure Induced Variations in Refractive Index of Aromatic Polyimide Film Analyzed by Brillouin Scattering. Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi], 2018, 31, 599-606.	0.1	2

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55	Mixed-valence state and structure changes of EuH ($x\text{H}^{-2}$ and 2H^{-1}) under high-pressure H ₂ atmosphere, Journal of Alloys and Compounds, 2021, 865, 158637.	2.8	2
56	Phase Changes Induced by Guest Orientational Ordering on Methane and Hydrogen Hydrates under Low Temperatures and High Pressures. Review of High Pressure Science and Technology/Koatsuryoku No Kagaku To Gijutsu, 2014, 24, 278-287.	0.1	1
57	Elastic Properties of Methane-Propane Mixed Gas Hydrate. Review of High Pressure Science and Technology/Koatsuryoku No Kagaku To Gijutsu, 2014, 24, 270-277.	0.1	1
58	Searching for Superconducting Hydrides "The Experimental Achievements". Review of High Pressure Science and Technology/Koatsuryoku No Kagaku To Gijutsu, 2018, 28, 268-280.	0.1	1
59	Hydrogen-Storing Salt NaCl(H ₂) Synthesized at High Pressure and High Temperature. Journal of Physical Chemistry C, 2019, 123, 25074-25080.	1.5	1
60	Electrical Resistance Measurement Techniques for Metal Hydrides under High-Pressure H ₂ Conditions & Electrical Transport and Structural Properties of FeH _x . Review of High Pressure Science and Technology/Koatsuryoku No Kagaku To Gijutsu, 2011, 21, 190-196.	0.1	1
61	Phase changes induced by guest orientational ordering of filled ice Ih methane hydrate under high pressure and low temperature. Journal of Physics: Conference Series, 2014, 500, 192006.	0.3	0
62	Plasmons in Li under compression. Journal of Physics Condensed Matter, 2019, 31, 185501.	0.7	0
63	Report on the XLVIIth Meeting of European High Pressure Research Group. Review of High Pressure Science and Technology/Koatsuryoku No Kagaku To Gijutsu, 2010, 20, 78-80.	0.1	0
64	Report on Kick-off Conference on Pressure Effects on Materials ICMR. Review of High Pressure Science and Technology/Koatsuryoku No Kagaku To Gijutsu, 2011, 21, 44-45.	0.1	0
65	Report on the 6th Asian Conference on High-Pressure Research (ACHPR 6)/International Forum on High-Pressure Sciences (IFHPS). Review of High Pressure Science and Technology/Koatsuryoku No Kagaku To Gijutsu, 2013, 23, 70-71.	0.1	0
66	Raman Spectroscopy of Condensed Matter under High Pressure. Review of High Pressure Science and Technology/Koatsuryoku No Kagaku To Gijutsu, 2015, 25, 3-10.	0.1	0
67	Anomalous Uniaxial Compression of Interlayer Distance in Highly Oriented Pyrolytic Graphite. The Review of Laser Engineering, 2017, 45, 513.	0.0	0
68	X-ray Free Electron Laser (XFEL) Observation of Lonsdaleite Formation by Ultrafast Laser Shock Compression. The Review of Laser Engineering, 2019, 47, 47.	0.0	0