

Isaac F Silvera

List of Publications by Year in descending order

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189
papers

7,990
citations

57758

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84
g-index

192
all docs

192
docs citations

192
times ranked

3398
citing authors

#	ARTICLE	IF	CITATIONS
1	The solid molecular hydrogens in the condensed phase: Fundamentals and static properties. <i>Reviews of Modern Physics</i> , 1980, 52, 393-452.	45.6	1,097
2	The isotropic intermolecular potential for H ₂ and D ₂ in the solid and gas phases. <i>Journal of Chemical Physics</i> , 1978, 69, 4209-4213.	3.0	560
3	Observation of the Wigner-Huntington transition to metallic hydrogen. <i>Science</i> , 2017, 355, 715-718.	12.6	438
4	The ruby pressure standard to 150 GPa. <i>Journal of Applied Physics</i> , 2005, 98, 114905.	2.5	231
5	Stabilization of Atomic Hydrogen at Low Temperature. <i>Physical Review Letters</i> , 1980, 44, 164-168.	7.8	209
6	Atomic hydrogen in an inhomogeneous magnetic field: Density profile and Bose-Einstein condensation. <i>Physical Review B</i> , 1981, 24, 2870-2873.	3.2	165
7	Optical Evidence for the Metallization of Xenon at 132(5) GPa. <i>Physical Review Letters</i> , 1989, 62, 665-668.	7.8	164
8	Raman spectra of diamond at high pressures. <i>Physical Review B</i> , 1985, 32, 1423-1425.	3.2	163
9	New Low-Temperature Phase of Molecular Deuterium at Ultrahigh Pressure. <i>Physical Review Letters</i> , 1981, 47, 39-42.	7.8	144
10	Evidence for a structural phase transition in solid hydrogen at megabar pressures. <i>Physical Review Letters</i> , 1989, 63, 2080-2083.	7.8	124
11	Melting Line of Hydrogen at High Pressures. <i>Physical Review Letters</i> , 2008, 100, 155701.	7.8	121
12	Ruby at high pressure. I. Optical line shifts to 156 GPa. <i>Physical Review B</i> , 1989, 40, 5724-5732.	3.2	120
13	Gap reduction and the collapse of solid C ₆₀ to a new phase of carbon under pressure. <i>Physical Review Letters</i> , 1992, 69, 466-469.	7.8	118
14	Evidence of a first-order phase transition to metallic hydrogen. <i>Physical Review B</i> , 2016, 93, .	3.2	118
15	Diamond anvil cell and cryostat for low-temperature optical studies. <i>Review of Scientific Instruments</i> , 1985, 56, 121-124.	1.3	113
16	Orientational phase transitions in hydrogen at megabar pressures. <i>Physical Review Letters</i> , 1990, 64, 1939-1942.	7.8	113
17	Evidence of a liquid-liquid phase transition in hot dense hydrogen. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 8040-8044.	7.1	92
18	Extended Infrared Studies of High Pressure Hydrogen. <i>Physical Review Letters</i> , 1996, 76, 1663-1666.	7.8	88

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19	Equation of state of solid molecular H ₂ and D ₂ at 5 K. Physical Review B, 1988, 37, 1989-2000.	3.2	85
20	High-pressure equations of state of Al, Cu, Ta, and W. Journal of Applied Physics, 2005, 98, 073526.	2.5	84
21	Low-Temperature Equation of State of Molecular Hydrogen and Deuterium to 0.37 Mbar: Implications for Metallic Hydrogen. Physical Review Letters, 1982, 48, 97-100.	7.8	81
22	Magnetic Equation of State of a Gas of Spin-Polarized Atomic Hydrogen. Physical Review Letters, 1980, 45, 449-452.	7.8	80
23	Equation of state of solid He ₄ . Physical Review B, 1986, 33, 3269-3288.	3.2	73
24	Liquid-vapor density profile of helium: An x-ray study. Physical Review Letters, 1992, 68, 2628-2631.	7.8	72
25	Absorption and reflectance in hydrogen up to 230 GPa: Implications for metallization. Physical Review Letters, 1991, 66, 193-196.	7.8	71
26	Trapping of neutral atoms with resonant microwave radiation. Physical Review Letters, 1989, 62, 2361-2364.	7.8	68
27	Helium-temperature beam source of atomic hydrogen. Review of Scientific Instruments, 1982, 53, 1167-1181.	1.3	67
28	Demonstration of neutral atom trapping with microwaves. Physical Review Letters, 1994, 72, 3162-3165.	7.8	65
29	Effect of Pressure on Statics, Dynamics, and Stability of Multielectron Bubbles. Physical Review Letters, 2001, 87, 275301.	7.8	65
30	Inelastic Neutron Scattering and Separation Coefficient of Absorbed Hydrogen: Molecular Alignment and Energy Levels. Physical Review Letters, 1976, 37, 1275-1278.	7.8	64
31	Spin exchange and dipolar relaxation rates in atomic hydrogen: Lifetimes in magnetic traps. Physical Review B, 1986, 33, 626-628.	3.2	63
32	Measurement of Pressure of Gaseous H ⁺ : Adsorption Energies and Surface Recombination Rates on Helium. Physical Review Letters, 1981, 46, 668-671.	7.8	62
33	Compression of Spin-Polarized Hydrogen to High Density. Physical Review Letters, 1983, 51, 479-482.	7.8	56
34	Remarkable high pressure phase line of orientational order in solid hydrogen deuteride. Physical Review Letters, 1993, 71, 3814-3817.	7.8	56
35	Spin-Polarized Atomic Deuterium: Stabilization, Limitations on Density, and Adsorption Energy on Helium. Physical Review Letters, 1980, 45, 1268-1271.	7.8	55
36	Density dependence of the intramolecular distance in solid H ₂ : A. Spectroscopic determination. Physical Review B, 1991, 43, 10191-10196.	3.2	55

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37	NMR Study of Ortho-Para Conversion at High Pressure in Hydrogen. Physical Review Letters, 1998, 81, 4180-4183.	7.8	55
38	Ruby at high pressure. II. Fluorescence lifetime of the R1 line to 130 GPa. Physical Review B, 1989, 40, 5733-5738.	3.2	54
39	Test of the linearity of quantum mechanics in an atomic system with a hydrogen maser. Physical Review Letters, 1990, 64, 2599-2602.	7.8	51
40	Excitations, order parameters, and phase diagram of solid deuterium at megabar pressures. Physical Review B, 1995, 51, 14987-14997.	3.2	50
41	Experimental determination of the equation of state of solid hydrogen and deuterium at high pressures. Journal of Low Temperature Physics, 1979, 34, 255-305.	1.4	46
42	State-Dependent Recombination and Suppressed Nuclear Relaxation in Atomic Hydrogen. Physical Review Letters, 1982, 49, 153-157.	7.8	46
43	Temperature determination for nanosecond pulsed laser heating. Review of Scientific Instruments, 2003, 74, 3820-3825.	1.3	45
44	Raman scattering in oriented crystals of paradeuterium and orthohydrogen. Physical Review B, 1975, 12, 753-789.	3.2	44
45	X-ray specular-reflectivity study of the liquid-vapor density profile of He4. Physical Review B, 1993, 48, 9644-9659.	3.2	43
46	Conductivity and dissociation in liquid metallic hydrogen and implications for planetary interiors. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 11873-11877.	7.1	41
47	Raman Spectra of Oriented Crystals of Paradeuterium and Orthohydrogen in the Ordered State. Physical Review Letters, 1971, 26, 127-131.	7.8	40
48	Intracavity Raman Scattering from Molecular Beams: Direct Determination of Local Properties in an Expanding Jet Beam. Physical Review Letters, 1976, 37, 136-140.	7.8	40
49	Megabar pressure triple point in solid deuterium. Physical Review Letters, 1994, 72, 3048-3051.	7.8	40
50	Observation of Librational Waves in the Ordered State of Solid Hydrogen and Deuterium by Raman Scattering. Physical Review Letters, 1969, 22, 297-300.	7.8	39
51	Raman-Active Optical Phonons in the Hexagonal Phases of Solid H2, D2, and HD. Physical Review B, 1972, 5, 1578-1586.	3.2	39
52	Density, Magnetization, Compression, and Thermal Leakage of Low-Temperature Atomic Hydrogen. Physical Review Letters, 1980, 44, 168-171.	7.8	39
53	Optical Phonons in Solid Hydrogen and Deuterium in the Ordered State. Physical Review Letters, 1968, 21, 291-294.	7.8	38
54	Absorption Energy and Nuclear Relaxation of H ⁺ on He3-He4 Mixtures. Physical Review Letters, 1981, 47, 800-803.	7.8	38

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55	Raman studies of argon dimers in a supersonic expansion. I. Spectroscopy. <i>Physical Review A</i> , 1983, 27, 3008-3018.	2.5	38
56	Improved adhesion of thin conformal organic films to metal surfaces. <i>Review of Scientific Instruments</i> , 1986, 57, 1381-1383.	1.3	38
57	Ruby at high pressure. III. A pumping scheme for the R lines up to 230 GPa. <i>Physical Review B</i> , 1991, 44, 7202-7208.	3.2	38
58	Atomic Hydrogen in Contact with a Helium Surface: Bose Condensation, Adsorption Isotherms, and Stability. <i>Physical Review Letters</i> , 1980, 45, 915-918.	7.8	37
59	Ultimate fate of a gas of atomic hydrogen in a liquid-helium chamber: Recombination and burial. <i>Physical Review B</i> , 1984, 29, 3899-3904.	3.2	36
60	Nuclear magnetic resonance in a diamond anvil cell at very high pressures. <i>Review of Scientific Instruments</i> , 1998, 69, 479-484.	1.3	36
61	Hydrogen maser at temperatures below 1 K. <i>Physical Review A</i> , 1986, 34, 2550-2553.	2.5	35
62	Index of refraction, polarizability, and equation of state of solid molecular hydrogen. <i>Physical Review B</i> , 1998, 57, 14105-14109.	3.2	35
63	Pulsed laser heating and temperature determination in a diamond anvil cell. <i>Review of Scientific Instruments</i> , 2005, 76, 125104.	1.3	35
64	Order parameter and a critical point on the megabar-pressure hydrogen-A phase line. <i>Physical Review Letters</i> , 1990, 65, 1901-1904.	7.8	32
65	Infrared Properties of Ortho and Mixed Crystals of Solid Deuterium at Megabar Pressures and the Question of Metallization in the Hydrogens. <i>Physical Review Letters</i> , 1995, 74, 4011-4014.	7.8	32
66	Roton softening in the solid hydrogens. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1981, 84, 28-31.	2.1	31
67	Ortho-para conversion of solid hydrogen as a function of density. <i>Physical Review B</i> , 1984, 30, 2517-2526.	3.2	31
68	Observation of Metal-insulator and Metal-Metal Transitions in Hydrogen Iodide under Pressure. <i>Physical Review Letters</i> , 1986, 57, 766-769.	7.8	31
69	⁴ Heliquid-vapor interface below 1 K studied using x-ray reflectivity. <i>Physical Review B</i> , 2000, 62, 9621-9640.	3.2	30
70	Calibration of the ruby pressure scale to 150 GPa. <i>Physica Status Solidi (B): Basic Research</i> , 2007, 244, 460-467.	1.5	30
71	Pressure dependence of the vibron in solid hydrogen and deuterium up to 600 kbar. <i>Physical Review B</i> , 1982, 26, 4957-4962.	3.2	29
72	Raman Spectroscopy of Argon Dimers. <i>Physical Review Letters</i> , 1982, 48, 1337-1340.	7.8	29

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73	Pressure dependence of the optical-absorption edge of solid hydrogen in a diamond-anvil cell. <i>Physical Review B</i> , 1988, 37, 6478-6481.	3.2	29
74	Third sound of helium on a hydrogen substrate. <i>Physical Review B</i> , 1991, 44, 12453-12462.	3.2	29
75	An improved experimental equation of state of solid hydrogen and deuterium. <i>Journal of Low Temperature Physics</i> , 1984, 54, 361-395.	1.4	28
76	Compression experiments with spin-polarized atomic hydrogen. <i>Physical Review B</i> , 1985, 32, 5668-5682.	3.2	28
77	Pressure dependence of the vibron in H ₂ , HD, and D ₂ : Implications for inter- and intramolecular forces. <i>Physical Review B</i> , 1993, 48, 12613-12619.	3.2	28
78	Cold collisions of ground state He ₄ : Giant S-wave scattering cross sections. <i>Physical Review Letters</i> , 1993, 71, 1343-1346.	7.8	28
79	Rotational excitations in solid hydrogen and deuterium in the ordered state. <i>Discussions of the Faraday Society</i> , 1969, 48, 54.	0.9	27
80	Pressure dependence of the vibron modes in solid hydrogen and deuterium. <i>Physical Review B</i> , 1992, 46, 5791-5794.	3.2	26
81	Excitation of ruby fluorescence at multimegabar pressures. <i>Review of Scientific Instruments</i> , 1996, 67, 4275-4278.	1.3	26
82	Raman studies of argon dimers in a supersonic expansion. II. Kinetics of dimer formation. <i>Physical Review A</i> , 1983, 27, 3019-3030.	2.5	25
83	Direct Microscopic Study of Doubly Polarized Atomic Hydrogen by Electron-Spin Resonance. <i>Physical Review Letters</i> , 1983, 50, 53-56.	7.8	25
84	Elimination of pressure-induced fluorescence in diamond anvils. <i>Applied Physics Letters</i> , 1988, 53, 2489-2491.	3.3	25
85	Comment on "The weakest bond: Experimental observation of helium dimer" [J. Chem. Phys. 98, 3564 (1993)]. <i>Journal of Chemical Physics</i> , 1994, 100, 4021-4022.	3.0	25
86	Pressure dependence of the optical phonon in solid hydrogen and deuterium up to 230 kbar. <i>Physical Review B</i> , 1983, 27, 5084-5087.	3.2	23
87	Direct Observation of Isolated J=1 Pairs in Solid Deuterium and Hydrogen by Raman Scattering. <i>Physical Review B</i> , 1971, 4, 2724-2733.	3.2	22
88	New Phases and Dissociation-Recombination of Hydrogen Deuteride to 3.4 ÅMbar. <i>Physical Review Letters</i> , 2016, 116, 145501.	7.8	22
89	Metallic hydrogen. <i>Journal of Physics Condensed Matter</i> , 2018, 30, 254003.	1.8	21
90	Raman Spectrum of Solid Orthodeuterium to 150 kbar at 5 K. <i>Physical Review Letters</i> , 1980, 44, 456-459.	7.8	20

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91	Interaction of Atomic Hydrogen with Undersaturated Helium Films. <i>Physical Review Letters</i> , 1985, 55, 1311-1314.	7.8	20
92	Metallic hydrogen: The most powerful rocket fuel yet to exist. <i>Journal of Physics: Conference Series</i> , 2010, 215, 012194.	0.4	20
93	Far-infrared absorption by phonons and librations in solid H ₂ and D ₂ in the ordered state. <i>Journal of Low Temperature Physics</i> , 1978, 32, 185-219.	1.4	19
94	Orientalional Ordering in Solid Hydrogen: Dependence of Critical Temperature and Concentration on Density. <i>Physical Review Letters</i> , 1979, 43, 377-380.	7.8	19
95	Striking isotope effect on the metallization phase lines of liquid hydrogen and deuterium. <i>Physical Review B</i> , 2018, 98, .	3.2	19
96	Quantum phase transition in solid hydrogen at high pressure. <i>Physical Review B</i> , 2019, 100, .	3.2	19
97	Measurement of a hyperfine-induced spin-exchange frequency shift in atomic hydrogen. <i>Physical Review A</i> , 1992, 46, 2495-2512.	2.5	18
98	X-ray study of pressure-collapsed fullerite. <i>Physical Review B</i> , 1993, 48, 8474-8475.	3.2	18
99	The equation of state of solid molecular hydrogen and deuterium. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1978, 68, 207-210.	2.1	17
100	Spin-polarized atomic hydrogen: A magnetic gas (invited). <i>Journal of Applied Physics</i> , 1981, 52, 2304-2308.	2.5	17
101	The insulator-metal transition in hydrogen. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 12743-12744.	7.1	17
102	Experiments with $\uparrow\downarrow$ -doubly- $\uparrow\downarrow$ -spin-polarized atomic hydrogen. <i>Physical Review B</i> , 1986, 34, 6172-6182.	3.2	16
103	Dielectric properties of solid molecular hydrogen at high pressure. <i>Physical Review B</i> , 1992, 45, 9709-9715.	3.2	16
104	Electrical resistance measurements on cryocrystals in a diamond-anvil cell to 70 GPa. <i>Review of Scientific Instruments</i> , 1987, 58, 994-996.	1.3	15
105	Thermionic emission and a novel electron collector in a liquid helium environment. <i>Review of Scientific Instruments</i> , 2009, 80, 043901.	1.3	15
106	Response to Comment on "Observation of the Wigner-Huntington transition to metallic hydrogen". <i>Science</i> , 2017, 357, .	12.6	15
107	Response to Comment on "Observation of the Wigner-Huntington transition to metallic hydrogen". <i>Science</i> , 2017, 357, .	12.6	15
108	Mylar Windows for Use at Low Temperatures. <i>Review of Scientific Instruments</i> , 1970, 41, 1513-1514.	1.3	14

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109	Experimental study of spin aligned atomic hydrogen condensed on surfaces. Physics Letters, Section A: General, Atomic and Solid State Physics, 1978, 66, 247-250.	2.1	14
110	Strategy and enhanced temperature determination in a laser heated diamond anvil cell. Journal of Applied Physics, 2009, 105, .	2.5	14
111	Ballistic heat pulses in spin-polarized atomic hydrogen to $T=200\text{mK}$. Physical Review B, 1982, 25, 6002-6005.	3.2	13
112	Novel technique for producing ultracold He4 beams. Physical Review Letters, 1993, 70, 908-911.	7.8	12
113	Precision Frequency Calibrator for Raman Spectrometers. Review of Scientific Instruments, 1972, 43, 58-62.	1.3	11
114	Eddy current shielding and heating: Reduction of dissipation for very low μK temperature experiments in the presence of magnetic field ripple. Review of Scientific Instruments, 1989, 60, 2964-2968.	1.3	11
115	Novel methods to create multielectron bubbles in superfluid helium. Review of Scientific Instruments, 2011, 82, 033904.	1.3	11
116	Direct determination of the temperature and density of gaseous atomic hydrogen at low temperature by atomic beam techniques. Physics Letters, Section A: General, Atomic and Solid State Physics, 1979, 74, 193-196.	2.1	10
117	Spin-polarized hydrogen: A weakly interacting boson gas. Journal of Low Temperature Physics, 1992, 87, 343-374.	1.4	10
118	Frequency dependence of Raman-active phonons in solid HCP hydrogen on ortho-para concentration and temperature. Journal of Low Temperature Physics, 1979, 35, 611-625.	1.4	9
119	Study of pressure distributions in a megabar diamond indenter cell. Review of Scientific Instruments, 1988, 59, 2583-2591.	1.3	9
120	Three-body recombination of spin-polarized atomic hydrogen in very strong magnetic fields. Physical Review B, 1989, 40, 210-223.	3.2	9
121	Heat transport via evaporation of superfluid helium films: Giant effective Kapitza resistance. Physical Review Letters, 1992, 68, 3068-3071.	7.8	9
122	The quest for Bose-Einstein condensation in atomic hydrogen. Journal of Low Temperature Physics, 1995, 101, 49-58.	1.4	9
123	The Validity of Ortho and Para States of Hydrogen at Megabar Pressures. Journal of Low Temperature Physics, 1998, 112, 237-250.	1.4	9
124	Megabar-Pressure Infrared Study of Hydrogen Deuteride. Physical Review Letters, 2006, 97, 255701.	7.8	9
125	The libron spectra and conversion as a function of ortho-para concentration in solid H2 and D2. Journal of Low Temperature Physics, 1978, 32, 401-417.	1.4	8
126	Far-infrared absorption in solid hydrogen and deuterium in the ordered state as a function of density. Journal of Low Temperature Physics, 1979, 36, 243-278.	1.4	8

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127	A hybrid microwave-static magnetic trap for spin-polarized hydrogen. <i>Physica B: Condensed Matter</i> , 1991, 169, 449-450.	2.7	8
128	Measurements of giant cross sections in low temperature ^4He - ^4He scattering. <i>Journal of Low Temperature Physics</i> , 1992, 89, 569-572.	1.4	8
129	The c-DAC: A novel cubic diamond anvil cell with large sample volume/area and multidirectional optics. <i>Review of Scientific Instruments</i> , 2006, 77, 115105.	1.3	8
130	Finite-element simulation of the liquid-liquid transition to metallic hydrogen. <i>Physical Review B</i> , 2019, 100, .	3.2	8
131	Deuterated palladium at temperatures from 4.3 to 400 K and pressures to 105 kbar: Search for cold fusion. <i>Physical Review B</i> , 1990, 42, 9143-9146.	3.2	7
132	Nonlocal distribution of the recombination energy in spin-polarized atomic hydrogen. <i>Physical Review B</i> , 1994, 50, 9339-9343.	3.2	7
133	The double-diamond anvil cell, the poor-man's megabar pressure cell. <i>Review of Scientific Instruments</i> , 1999, 70, 4609-4611.	1.3	7
134	Electron Emission in Superfluid and Low Temperature Vapor Phase Helium. <i>Physical Review Letters</i> , 2008, 100, 117602.	7.8	7
135	Molten under pressure. <i>Nature Physics</i> , 2010, 6, 9-10.	16.7	7
136	Study of doubly polarized atomic hydrogen by electron-spin resonance. <i>Physical Review B</i> , 1984, 30, 2386-2400.	3.2	6
137	Vibrational mode frequencies, phase diagram, and optical transmission of solid hydrogen iodide to 25 GPa. <i>Physical Review B</i> , 1987, 36, 9253-9262.	3.2	6
138	Semiempirical equation of state of solid hydrogen iodide. <i>Physical Review B</i> , 1987, 36, 9301-9303.	3.2	6
139	Spin-polarized hydrogen in high magnetic fields. <i>Physical Review B</i> , 1988, 38, 9231-9234.	3.2	6
140	Impurity proton NMR signals from common "proton-free" laboratory materials. <i>Journal of Magnetic Resonance</i> , 2003, 162, 417-422.	2.1	6
141	Pressure distribution in a quasi-hydrostatic pressure medium: A finite element analysis. <i>Journal of Applied Physics</i> , 2011, 110, .	2.5	6
142	The Creation of Long-Lived Multielectron Bubbles in Superfluid Helium. <i>Journal of Low Temperature Physics</i> , 2017, 187, 54-61.	1.4	6
143	An atomic beam technique for the study of active solid nitrogen. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1979, 73, 119-122.	2.1	5
144	Rotational R branch Raman spectroscopy in CO_2 . <i>Journal of Chemical Physics</i> , 1983, 78, 121-123.	3.0	5

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145	Roton-phonon mixing in solid hydrogen and deuterium. <i>Physical Review B</i> , 1985, 31, 1352-1358.	3.2	5
146	ESR pumping experiments in spin-polarized atomic hydrogen. <i>Physical Review B</i> , 1988, 37, 4831-4838.	3.2	5
147	Reply to "Comment on "Ruby at high pressure. I. Optical line shifts to 156 GPa". <i>Physical Review B</i> , 1990, 42, 9191-9192.	3.2	5
148	Conceptual Launch Vehicles Using Metallic Hydrogen Propellant. <i>AIP Conference Proceedings</i> , 2008, , .	0.4	5
149	Phases of the hydrogen isotopes under pressure: metallic hydrogen. <i>Advances in Physics: X</i> , 2021, 6, .	4.1	5
150	Transmission-line tunnel diode oscillator: A sensitive, fast, and flexible low-temperature detection system. <i>Review of Scientific Instruments</i> , 1986, 57, 2842-2847.	1.3	4
151	Magnetic-field dependence of resonance recombination in spin-polarized atomic hydrogen. <i>Physical Review B</i> , 1988, 37, 1520-1524.	3.2	4
152	Prospects for Bose-Einstein condensation in atomic hydrogen and other gases. <i>Journal of Low Temperature Physics</i> , 1992, 89, 287-296.	1.4	4
153	Spin-polarized Hydrogen in a High Field Trap: Towards a Two-Component Bose Gas. <i>Journal of Low Temperature Physics</i> , 1998, 113, 211-216.	1.4	4
154	Hydrogen at megabar pressures and the importance of ortho-para concentration. <i>Journal of Physics Condensed Matter</i> , 1998, 10, 11169-11177.	1.8	4
155	A Variable Temperature, Variable Path Length Cell for ir Studies of Liquefied and Solidified Gases. <i>Review of Scientific Instruments</i> , 1970, 41, 1592-1594.	1.3	3
156	Anomalous double-peaked one-phonon far infrared absorption in compressed deuterium. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1979, 70, 337-340.	2.1	3
157	A hydrogen maser at temperatures below 1 K. <i>IEEE Transactions on Instrumentation and Measurement</i> , 1987, IM-36, 588-593.	4.7	3
158	Ortho-para dependence of the equation of state and the phonon frequency of solid hydrogen. <i>Physical Review B</i> , 1987, 35, 6649-6658.	3.2	3
159	Spin-Polarized Atomic Hydrogen in Very High Magnetic Fields. <i>Japanese Journal of Applied Physics</i> , 1987, 26, 229.	1.5	3
160	Observation of the $J=4$ roton band in solid deuterium under pressure. <i>Physical Review Letters</i> , 1990, 65, 2677-2679.	7.8	3
161	X-ray specular reflectivity of the ^4He liquid-vapor interface. <i>Physica B: Condensed Matter</i> , 1991, 169, 507-508.	2.7	3
162	Adhesives for highly polished surfaces and low temperature: A simple test and results. <i>Review of Scientific Instruments</i> , 2002, 73, 2108-2114.	1.3	3

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163	Properties of the spherical 2D electron system in a multielectron bubble in liquid helium. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2004, 22, 771-774.	2.7	3
164	Nanoshells as a high-pressure gauge analyzed to 200 GPa. <i>Journal of Applied Physics</i> , 2011, 110, .	2.5	3
165	A model for the determination of the crystal field potential in H ₂ and D ₂ from high pressure experiments. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1983, 99, 97-100.	2.1	2
166	The high-pressure equation of state of solid molecular tritium. <i>Journal of Low Temperature Physics</i> , 1984, 54, 565-585.	1.4	2
167	Temperature dependence of resistance of solid hydrogen iodide at high pressure. <i>Journal of Chemical Physics</i> , 1988, 88, 478-480.	3.0	2
168	Nonlinear quantum mechanics for systems of composite spin. <i>Physical Review A</i> , 1990, 42, 63-68.	2.5	2
169	A novel magnetic trap for spin-polarized hydrogen. <i>Journal of Low Temperature Physics</i> , 1992, 89, 703-706.	1.4	2
170	Surface-state hydrogen maser. <i>Physical Review A</i> , 1993, 48, 3921-3929.	2.5	2
171	Investigations of possible metallic and critical behavior in the solid hydrogens at megabar pressures. <i>Journal of Non-Crystalline Solids</i> , 1996, 205-207, 290-294.	3.1	2
172	A High Pressure Study of Ortho-para Conversion in Hydrogen by NMR. <i>Journal of Low Temperature Physics</i> , 1998, 113, 711-716.	1.4	2
173	X-ray-induced thinning of ³ He and ³ He/ ⁴ He mixture films. <i>Physical Review B</i> , 2000, 62, 9641-9647.	3.2	2
174	Metallic Hydrogen. <i>Journal of Low Temperature Physics</i> , 2017, 187, 4-19.	1.4	2
175	Reply to "Comment on "Evidence of a first-order phase transition to metallic hydrogen". <i>Physical Review B</i> , 2017, 96, .	3.2	2
176	Cooling of a Gas of Atomic Hydrogen with Microwave Radiation. <i>Japanese Journal of Applied Physics</i> , 1987, 26, 245.	1.5	2
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