

# Hidefumi Takahashi

## List of Publications by Year in descending order

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124  
papers

1,407  
citations

394286

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125  
docs citations

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times ranked

1753  
citing authors

#	ARTICLE	IF	CITATIONS
1	Magnetic Generation and Switching of Topological Quantum Phases in a Trivial Semimetal $\text{EuP}_2\text{As}_4$ . Physical Review X, 2022, 12, .	2.8	6
2	Spin-orbit-derived giant magnetoresistance in a layered magnetic semiconductor $\text{AgCrSe}_2$ . Physical Review Materials, 2022, 6, .	1.9	1
3	High-pressure synthesis of $\text{Ba}_2\text{Rh}_2\text{O}_8$ , a rhodate analog of the layered perovskite Sr-ruthenate. Physical Review Materials, 2021, 5, .	0.9	0
4	High-Pressure Synthesis of a Massive and Non-Symmorphic Dirac Semimetal Candidate $\text{MoP}_4$ . Journal of the Physical Society of Japan, 2021, 90, .	0.7	3
5	Development of an Ir-TES for near infrared single photon counting. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2020, 954, 162120.	0.7	2
6	Large Magneto-piezoelectric Effect in $\text{EuMnBi}_2$ Single Crystal at Low Temperatures. Scientific Reports, 2020, 10, 7574.	1.6	5
7	Competing spin modulations in the magnetically frustrated semimetal $\text{EuCuSb}$ . Physical Review B, 2020, 102, .	1.1	10
8	Switching of band inversion and topological surface states by charge density wave. Nature Communications, 2020, 11, 2466.	5.8	19
9	Field-induced spin reorientation in the antiferromagnetic Dirac material $\text{EuMnBi}_2$ revealed by neutron and resonant x-ray diffraction. Physical Review B, 2020, 101, .	1.1	10
10	Complete phase diagram of $\text{Sr}_3\text{O}$ with versatile magnetic and charge ordering. Physical Review Materials, 2020, 4, .	0.9	14
11	Highly sensitive $1\frac{1}{4}$ m pitch 36-channel silicon photo multiplier array prototype using silicon on insulator technology. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2019, 924, 436-440.	0.7	7
12	High pressure synthesis of a quasi-one-dimensional $\text{GdFeO}_3$ -type perovskite $\text{PrCuO}_3$ with nearly divalent Cu ions. Chemical Communications, 2019, 55, 8931-8934.	2.2	5
13	Observation of a Magnetopiezoelectric Effect in the Antiferromagnetic Metal $\text{EuMnBi}_2$ . Physical Review Letters, 2019, 122, 127207.	2.9	26
14	Giant enhancement of cryogenic thermopower by polar structural instability in the pressurized semimetal $\text{MoTe}_2$ . Physical Review B, 2019, 100, .	1.1	10
15	Development of a Small-Pixel Ir-TES for Optical Applications. Journal of Low Temperature Physics, 2018, 193, 344-348.	0.6	1
16	Impact of antiferromagnetic order on Landau-level splitting of quasi-two-dimensional Dirac fermions in $\text{EuMnBi}_2$ . Physical Review B, 2018, 98, .	1.1	28
17	High-Pressure Synthesis of Perovskite-Type Oxides with Unusually High Valence Iron/Cobalt Ions and Exploration of Novel Magnetic Phases. Review of High Pressure Science and Technology/Koatsuryoku No Kagaku To Gijutsu, 2018, 28, 206-216.	0.1	0
18	Giant Piezoelectric Response in Superionic Polar Semiconductor. Advanced Electronic Materials, 2018, 4, 1800174.	2.6	8

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19	Enhanced thermopower via spin-state modification. <i>Physical Review B</i> , 2018, 98, .	1.1	12
20	Fabrication of ZnO-Based Thermoelectric Micro-Devices by Electrodeposition. <i>Journal of the Electrochemical Society</i> , 2018, 165, D417-D422.	1.3	8
21	Interchannel Crosstalk and Nonlinearity of Microwave SQUID Multiplexers. <i>IEEE Transactions on Applied Superconductivity</i> , 2017, 27, 1-5.	1.1	8
22	Anticorrelation between polar lattice instability and superconductivity in the Weyl semimetal candidate $\text{MoTe}_2$ . <i>Physical Review B</i> , 2017, 95, .	1.1	57
23	Optical control of dielectric permittivity in $\text{LaAlO}_3/\text{SrTiO}_3$ . <i>Applied Physics Letters</i> , 2017, 110, .	1.5	13
24	Study of Nb and NbN Resonators at 0.1 K for Low-Noise Microwave SQUID Multiplexers. <i>IEEE Transactions on Applied Superconductivity</i> , 2017, 27, 1-5.	1.1	3
25	High-pressure synthesis of an unusual antiferromagnetic metal $\text{CaCoO}_3$ with $\text{GdFeO}_3$ -type perovskite structure. <i>Physical Review B</i> , 2017, 95, .	1.1	29
26	Prototype of a single probe Compton camera for laparoscopic surgery. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2017, 845, 660-663.	0.7	7
27	Colossal Seebeck effect enhanced by quasi-ballistic phonons dragging massive electrons in $\text{FeSb}_2$ . <i>Nature Communications</i> , 2016, 7, 12732.	5.8	55
28	Single Side Readout Depth of Interaction Method With Wavelength Discrimination. <i>IEEE Transactions on Nuclear Science</i> , 2016, 63, 679-684.	1.2	7
29	Solid-Phase Epitaxial Growth of $\text{Sr}_4\text{Er}_x\text{Co}_{12}\text{O}_{12+x}$ : A Room Temperature Ferrimagnetic $\text{p-Ti}$ Semiconductor. <i>Advanced Electronic Materials</i> , 2015, 1, 1500199.	2.6	6
30	Fabrication of $\lambda$ -structured Bi-Te thermoelectric micro-device by electrodeposition. <i>Electrochimica Acta</i> , 2015, 153, 515-522.	2.6	27
31	Intrinsic effects of substitution and intercalation on thermal transport in two-dimensional $\text{TiS}_2$ single crystals. <i>Journal of Applied Physics</i> , 2015, 117, 165101.	1.1	19
32	Development of Hard X-ray and Gamma-ray Detector With Transition Edge Sensor for Nuclear Materials Analysis. <i>IEEE Transactions on Applied Superconductivity</i> , 2015, 25, 1-3.	1.1	6
33	High Energy Gamma-Ray Spectroscopy Using Transition-Edge Sensor With a Superconducting Bulk Tantalum Absorber. <i>IEEE Transactions on Applied Superconductivity</i> , 2015, 25, 1-3.	1.1	12
34	Electrical oscillation in $\text{SmS}$ induced by a constant external voltage. <i>Physical Review B</i> , 2014, 89, .	1.1	8
35	Development of a prototype of time-over-threshold based small animal PET scanner. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2014, 753, 84-90.	0.7	14
36	Development of Hard X-Ray and Gamma-Ray Spectrometer Using Superconducting Transition Edge Sensor. <i>IEEE Transactions on Applied Superconductivity</i> , 2013, 23, 2100804-2100804.	1.1	12

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37	Development of Bulk Superconducting-Absorber Coupled Transition-Edge Sensor Detectors for Positron Annihilation Spectroscopy. IEEE Transactions on Applied Superconductivity, 2013, 23, 2100304-2100304.	1.1	3
38	Transport Properties of an Intermetallic with Pseudo-hollandite Structure as a Potential Thermoelectric Material: The Example of TlxCr <sub>5</sub> Se <sub>8</sub> . Chemistry of Materials, 2013, 25, 1809-1815.	3.2	17
39	Origin of the energy gap in the narrow-gap semiconductor FeSb <sub>2</sub> revealed by high-pressure magnetotransport measurements. Physical Review B, 2013, 88, .	1.1	11
40	Microstructure Boron detector for high efficiency thermal neutron detection. , 2013, , .		1
41	Development of a Compton Camera based on digital SiPMs and GAGG crystals. , 2013, , .		4
42	A feasibility study of portable compton camera for metastatic lymph node detection. , 2013, , .		0
43	Design and fabrication of endoscope-type Compton camera and its real time imaging system. , 2012, , .		1
44	Study on Ce:LiCAF scintillator for <sup>3</sup> He alternative detector. Neutron News, 2012, 23, 31-34.	0.1	31
45	Performance of Glass GEM. , 2012, , .		0
46	Development of intra-operative PET probe for multi-modal endoscope. , 2012, , .		0
47	Dynamic time-over-threshold method for multi-channel APD based gamma-ray detectors. , 2012, , .		1
48	Time over Threshold based digital animal PET (TODPET). , 2011, , .		13
49	Characterization of Signal Response of Lead Absorber Coupled Transition Edge Sensor Gamma-Ray Microcalorimeters. IEEE Transactions on Applied Superconductivity, 2011, 21, 211-214.	1.1	2
50	Design and performance of horizontal-type neutron reflectometer SOFIA at J-PARC/MLF. European Physical Journal Plus, 2011, 126, 1.	1.2	136
51	Effects of ppm-Level Imperfection on the Transport Properties of FeSb <sub>2</sub> Single Crystals. Journal of the Physical Society of Japan, 2011, 80, 054708.	0.7	18
52	Low-temperature magnetotransport of the narrow-gap semiconductor FeSb <sub>2</sub> . Physical Review B, 2011, 84, .	1.1	54
53	Ultra linear dynamic Time-over-Threshold with a simple CR-RC filtering. , 2011, , .		0
54	Generation of sub-15fs pulses with multi-terawatt peak power at 100-Hz repetition rate. , 2011, , .		0

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55	Multi-terawatt laser system generating 12-fs pulses at 100 Hz repetition rate. Applied Physics B: Lasers and Optics, 2010, 101, 523-534.	1.1	42
56	Distinct physical behaviors of $\text{LaFe}_{1-x}\text{Co}_x\text{AsO}_{0.89\text{F}0.11}$ between the superconducting and nonsuperconducting metallic regions of $y$ divided by $y \sim 1/4$ 0.05. Physica C: Superconductivity and Its Applications, 2010, 470, S475-S477.	0.6	5
57	NMR studies on the superconducting symmetry of iron pnictide systems. Physica C: Superconductivity and Its Applications, 2010, 470, S472-S474.	0.6	0
58	Application of dynamic time-over-threshold method to pixellated CdTe detector. , 2010, , .		0
59	Studies on Effects of Impurity Doping and NMR Measurements of $\text{La}_{1111}$ and/or $\text{Nd}_{1111}$ Fe-Pnictide Superconductors. Journal of the Physical Society of Japan, 2010, 79, 014710.	0.7	143
60	2-Dimensional He-3 M-MSGC with floating pads. , 2010, , .		1
61	A new dynamic time over threshold method. , 2009, , .		4
62	Development of a Transition Edge Sensor Gamma Ray Microcalorimeter with an Epoxy Coupled Bulk Lead Absorber. , 2009, , .		3
63	Simulation of Transient Response of Ir- $\hat{\text{A}}$ Position-Sensitive TES with Waveform Domain Multiplexing. Journal of Low Temperature Physics, 2008, 151, 155-160.	0.6	1
64	Design of an Optical Absorption Cavity for Titanium Transition Edge Sensors. Journal of Low Temperature Physics, 2008, 151, 46-50.	0.6	4
65	A new multi-level time over threshold method for energy resolving multi-channel systems. , 2008, , .		4
66	Pulse train multiplexing method for pixellated gamma detectors. , 2008, , .		1
67	Global-local-grouping multi-grid-type MSGC for neutron applications. , 2007, , .		0
68	A 12-Channel CMOS Preamplifier-Shaper-Discriminator ASIC for APD and Gas Counters. IEEE Transactions on Nuclear Science, 2006, 53, 2204-2208.	1.2	15
69	Multichannel CMOS ASIC preamplifiers for avalanche photodiode and microstrip gas chamber readouts. IEEE Transactions on Nuclear Science, 2006, 53, 242-246.	1.2	10
70	Digital signal processing based on a clustering algorithm for Ir/Au TES microcalorimeter. IEEE Transactions on Nuclear Science, 2006, 53, 259-264.	1.2	0
71	Correction to "Multichannel CMOS ASIC Preamplifiers for Avalanche Photodiode and Microstrip Gas Chamber Readouts". IEEE Transactions on Nuclear Science, 2006, 53, 2477-2477.	1.2	0
72	Development of a two-dimensional multigrid-type microstrip gas chamber using global-local grouping method. IEEE Transactions on Nuclear Science, 2006, 53, 326-329.	1.2	0

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73	Development of a He-3 MicroStrip Tube for neutron scattering. , 2006, , .		0
74	Characteristics of Various Film Cooling Jets Injected in a Conduit. Annals of the New York Academy of Sciences, 2006, 934, 345-352.	1.8	5
75	Monte Carlo wavefunction approach to the dissipative quantum-phase dynamics of two-component Bose-Einstein condensates. European Physical Journal D, 2006, 38, 523-532.	0.6	1
76	Multi-Channel Waveform Sampling ASIC for Animal PET System. , 2006, , .		2
77	Easy-to-Prepare Assembly Array of Tungsten Microelectrodes. IEEE Transactions on Biomedical Engineering, 2005, 52, 952-956.	2.5	22
78	Accessing Ampli-Tonotopic Organization of Rat Auditory Cortex by Microstimulation of Cochlear Nucleus. IEEE Transactions on Biomedical Engineering, 2005, 52, 1333-1344.	2.5	21
79	Multi-channel CMOS ASIC preamplifiers for APD and MSGC readouts. , 2004, , .		0
80	Microelectrode array on folding polyimide ribbon for epidural mapping of functional evoked potentials. IEEE Transactions on Biomedical Engineering, 2003, 50, 510-516.	2.5	52
81	Imaging analysis of superconducting transition edge sensors for calorimeters. IEEE Transactions on Applied Superconductivity, 2003, 13, 634-637.	1.1	6
82	Quantum mechanical/molecular mechanical studies of a novel reaction catalyzed by proton transfers in ambient and supercritical states of water. Journal of Chemical Physics, 2003, 119, 7964-7971.	1.2	39
83	Hybrid quantum chemical studies for the methanol formation reaction assisted by the proton transfer mechanism in supercritical water: $\text{CH}_3\text{Cl} + n\text{H}_2\text{O} \rightarrow \text{CH}_3\text{OH} + \text{HCl} + (n-1)\text{H}_2\text{O}$ . Journal of Chemical Physics, 2003, 119, 8492-8499.	1.2	20
84	Characteristics of a SrBPO/sub 5/:Eu/sup 2+/ material as a neutron storage phosphor. IEEE Transactions on Nuclear Science, 2003, 50, 788-791.	1.2	13
85	Development of a multi-channel waveform-sampling front-end ASIC and DOI detector for APD based animal PET. , 2003, , .		3
86	Clustering algorithm with adaptive shaping method for CdZnTe detectors. IEEE Transactions on Nuclear Science, 2002, 49, 3295-3299.	1.2	5
87	A fast readout method for an imaging plate using wavelength shifting fibers and line-shaped laser. IEEE Transactions on Nuclear Science, 2002, 49, 156-159.	1.2	0
88	Development of /sup 3/He MSGC for neutron scattering experiment. IEEE Transactions on Nuclear Science, 2002, 49, 1634-1637.	1.2	2
89	Intermediate states of superconducting thermometers for x-ray microcalorimeters. Applied Physics Letters, 2002, 81, 331-333.	1.5	8
90	A SrBPO 5 :Eu 2+ storage phosphor for neutron imaging. Applied Physics A: Materials Science and Processing, 2002, 74, s1589-s1591.	1.1	34

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91	High-position-resolution scintillation neutron-imaging detector by crossed-fiber readout with novel centroid-finding method. Applied Physics A: Materials Science and Processing, 2002, 74, s1604-s1606.	1.1	6
92	Development of a multigrid-type microstrip gas chamber. IEEE Transactions on Nuclear Science, 2001, 48, 2317-2320.	1.2	8
93	A hybrid QM/MM method employing real space grids for QM water in the TIP4P water solvents. Journal of Computational Chemistry, 2001, 22, 1252-1261.	1.5	58
94	Title is missing!. Genetic Programming and Evolvable Machines, 2001, 2, 289-299.	1.5	4
95	Density functional theory without the Born-Oppenheimer approximation and its application. International Journal of Quantum Chemistry, 1998, 70, 659-669.	1.0	54
96	Density functional theory without the Born-Oppenheimer approximation and its application. International Journal of Quantum Chemistry, 1998, 70, 659-669.	1.0	3
97	Corrections to "Nonlinear Saturation and Efficiency Enhancement in a Cherenkov Laser Using a Dielectric Grating". IEEE Journal of Quantum Electronics, 1997, 33, 1042-1042.	1.0	0
98	Nonlinear saturation and efficiency enhancement in a Cherenkov laser using a dielectric grating. IEEE Journal of Quantum Electronics, 1996, 32, 2037-2044.	1.0	7
99	High energy particle transport in laser fusion. AIP Conference Proceedings, 1994, , .	0.3	1
100	Transport properties under high pressure of the dense Kondo compounds CePdSn and YbB12. Physica B: Condensed Matter, 1993, 186-188, 419-421.	1.3	16
101	Studies on the centrifugal fractionation of leukocyte granules, especially on the isolation of a pure fraction of neutrophilic granules and on the fine structure of neutrophilic granules as observed under the electron microscope. Nagoya Journal of Medical Science, 1961, 24, 1-16.	0.6	4
102	Development of a two-dimensional multi-grid-type microstrip gas chamber using global-local grouping method. , 0, , .		0
103	A fast readout method for an imaging plate using wavelength shifting fibers and line-shaped laser. , 0, , .		0
104	The use of 1.5 $\mu$ m infrared light from a cooled scintillator for optical fiber based system. , 0, , .		0
105	Preliminary study on an imaging system with a two-dimensional photodetector and a thermoluminescent plate. , 0, , .		0
106	A digital waveform discrimination system for an NE213 scintillator using a VXIbus general purpose waveform digitizer. , 0, , .		1
107	Radiation distribution measurements with optical fibers in high radiation fields. , 0, , .		0
108	Position readout of MSGC by position encoding into signal pulses. , 0, , .		0

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109	Readout characteristics of an imaging plate by fast laser pulses. , 0, , .		0
110	The photo-electronic properties of porous Si/C/sub 60/ junction. , 0, , .		0
111	Lateral growth of silicon films from metal solutions [for solar cells]. , 0, , .		0
112	Surface multipoint microelectrode for direct recording of auditory evoked potentials on the auditory cortex of a rat. , 0, , .		3
113	Development of /sup 3/He MSGC for neutron scattering experiment. , 0, , .		0
114	Clustering algorithm with adaptive shaping method for CdZnTe detectors. , 0, , .		0
115	Design of new front-end electronics for animal PET. , 0, , .		5
116	Characteristics of a SrBPO/sub 5/:Eu/sup 2+/ material as a neutron storage phosphor. , 0, , .		0
117	Accessing cortical tonotopic organization by microstimulation of cochlear nucleus. , 0, , .		0
118	Development of a waveform sampling front-end ASIC for PET. , 0, , .		1
119	A small-volume and low-background digital anticoincidence beta counting system for C-14 dating using a gas counter combined with tiled CdTe wall detectors. , 0, , .		0
120	X-ray color scanner with multiple energy differentiate capability. , 0, , .		10
121	Digital signal processing based on a clustering algorithm for Ir/Au TES microcalorimeter. , 0, , .		0
122	Development of One-Dimensional Neutron Microstrip Gas Counter with Cathode Encoding. , 0, , .		0
123	A 12-Channel CMOS Preamplifier-Shaper-Discriminator ASIC for APD and Gas Counters. , 0, , .		1
124	An Ultra-Long Global-Local Grouping 1-D MSGC for Very-Large-Area Gas Detector. , 0, , .		0