

Hidefumi Takahashi

List of Publications by Year in descending order

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124
papers

1,407
citations

394286

19
h-index

377752

34
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125
all docs

125
docs citations

125
times ranked

1753
citing authors

#	ARTICLE	IF	CITATIONS
1	Studies on Effects of Impurity Doping and NMR Measurements of La 1111 and/or Nd 1111 Fe-Pnictide Superconductors. Journal of the Physical Society of Japan, 2010, 79, 014710.	0.7	143
2	Design and performance of horizontal-type neutron reflectometer SOFIA at J-PARC/MLF. European Physical Journal Plus, 2011, 126, 1.	1.2	136
3	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
4	Anticorrelation between polar lattice instability and superconductivity in the Weyl semimetal candidate MoTe_2 . Physical Review B, 2017, 95, .	1.1	57
5	Colossal Seebeck effect enhanced by quasi-ballistic phonons dragging massive electrons in FeSb ₂ . Nature Communications, 2016, 7, 12732.	5.8	55
6	Density functional theory without the Born-Oppenheimer approximation and its application. International Journal of Quantum Chemistry, 1998, 70, 659-669.	1.0	54
7	Low-temperature magnetotransport of the narrow-gap semiconductor FeSb. Physical Review B, 2011, 84, .	1.1	54
8	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
9	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
10	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
11	A SrBPO ₅ :Eu ²⁺ storage phosphor for neutron imaging. Applied Physics A: Materials Science and Processing, 2002, 74, s1589-s1591.	1.1	34
12	Study on Ce:LiCAF scintillator for ³ He alternative detector. Neutron News, 2012, 23, 31-34.	0.1	31
13	High-pressure synthesis of an unusual antiferromagnetic metal CaCoO ₃ with GdFeO ₃ -type perovskite structure. Physical Review B, 2017, 95, .	1.1	29
14	Impact of antiferromagnetic order on Landau-level splitting of quasi-two-dimensional Dirac fermions in EuMnBi_2 . Physical Review B, 2018, 98, .	1.1	28
15	Fabrication of $\hat{\Gamma}$ -structured Bi-Te thermoelectric micro-device by electrodeposition. Electrochimica Acta, 2015, 153, 515-522.	2.6	27
16	Observation of a Magnetopiezoelectric Effect in the Antiferromagnetic Metal EuMnBi_2 . Physical Review Letters, 2019, 122, 127207.	2.9	26
17	Easy-to-Prepare Assembly Array of Tungsten Microelectrodes. IEEE Transactions on Biomedical Engineering, 2005, 52, 952-956.	2.5	22
18	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

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19	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
20	Intrinsic effects of substitution and intercalation on thermal transport in two-dimensional TiS_2 single crystals. Journal of Applied Physics, 2015, 117, 165101.	1.1	19
21	Switching of band inversion and topological surface states by charge density wave. Nature Communications, 2020, 11, 2466.	5.8	19
22	Effects of ppm-Level Imperfection on the Transport Properties of FeSb_2 Single Crystals. Journal of the Physical Society of Japan, 2011, 80, 054708.	0.7	18
23	Transport Properties of an Intermetallic with Pseudo-hollandite Structure as a Potential Thermoelectric Material: The Example of $\text{TlxCr}_5\text{Se}_8$. Chemistry of Materials, 2013, 25, 1809-1815.	3.2	17
24	Transport properties under high pressure of the dense Kondo compounds CePdSn and YbB_{12} . Physica B: Condensed Matter, 1993, 186-188, 419-421.	1.3	16
25	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
26	Development of a prototype of time-over-threshold based small animal PET scanner. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2014, 753, 84-90.	0.7	14
27	Complete phase diagram of SrO_3 with versatile magnetic and charge ordering. Physical Review Materials, 2020, 4, .	0.9	14
28	Characteristics of a $\text{SrBPO}_{5/2}:\text{Eu}^{2+}$ material as a neutron storage phosphor. IEEE Transactions on Nuclear Science, 2003, 50, 788-791.	1.2	13
29	Time over Threshold based digital animal PET (TODPET). , 2011, , .		13
30	Optical control of dielectric permittivity in $\text{LaAlO}_3/\text{ZnO}$. Applied Physics Letters, 2017, 110, .	1.5	13
31	Development of Hard X-Ray and Gamma-Ray Spectrometer Using Superconducting Transition Edge Sensor. IEEE Transactions on Applied Superconductivity, 2013, 23, 2100804-2100804.	1.1	12
32	High Energy Gamma-Ray Spectroscopy Using Transition-Edge Sensor With a Superconducting Bulk Tantalum Absorber. IEEE Transactions on Applied Superconductivity, 2015, 25, 1-3.	1.1	12
33	Enhanced thermopower via spin-state modification. Physical Review B, 2018, 98, .	1.1	12
34	Origin of the energy gap in the narrow-gap semiconductor FeSb_2 revealed by high-pressure magnetotransport measurements. Physical Review B, 2013, 88, .	1.1	11
35	X-ray color scanner with multiple energy differentiate capability. , 0, , .		10
36	Multichannel CMOS ASIC preamplifiers for avalanche photodiode and microstrip gas chamber readouts. IEEE Transactions on Nuclear Science, 2006, 53, 242-246.	1.2	10

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37	Giant enhancement of cryogenic thermopower by polar structural instability in the pressurized semimetal MoTe ₂ . Physical Review B, 2019, 100, .	1.1	10
38	Competing spin modulations in the magnetically frustrated semimetal EuCuSb. Physical Review B, 2020, 102, .	1.1	10
39	Field-induced spin reorientation in the antiferromagnetic Dirac material EuMnBi_2 revealed by neutron and resonant x-ray diffraction. Physical Review B, 2020, 101, .		
40	Development of a multigrid-type microstrip gas chamber. IEEE Transactions on Nuclear Science, 2001, 48, 2317-2320.	1.2	8
41	Intermediate states of superconducting thermometers for x-ray microcalorimeters. Applied Physics Letters, 2002, 81, 331-333.	1.5	8
42	Electrical oscillation in SmS induced by a constant external voltage. Physical Review B, 2014, 89, .	1.1	8
43	Interchannel Crosstalk and Nonlinearity of Microwave SQUID Multiplexers. IEEE Transactions on Applied Superconductivity, 2017, 27, 1-5.	1.1	8
44	Giant Piezoelectric Response in Superionic Polar Semiconductor. Advanced Electronic Materials, 2018, 4, 1800174.	2.6	8
45	Fabrication of ZnO-Based Thermoelectric Micro-Devices by Electrodeposition. Journal of the Electrochemical Society, 2018, 165, D417-D422.	1.3	8
46	Spin-orbit-derived giant magnetoresistance in a layered magnetic semiconductor AgCrSe_2 . Physical Review Materials, 2022, 6, .	1.1	8
47	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
48	Single Side Readout Depth of Interaction Method With Wavelength Discrimination. IEEE Transactions on Nuclear Science, 2016, 63, 679-684.	1.2	7
49	Prototype of a single probe Compton camera for laparoscopic surgery. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2017, 845, 660-663.	0.7	7
50	A 250- μm 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
51	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
52	Imaging analysis of superconducting transition edge sensors for calorimeters. IEEE Transactions on Applied Superconductivity, 2003, 13, 634-637.	1.1	6
53	Solid-Phase Epitaxial Growth of $\text{Sr}_{1-x}\text{Er}_x\text{Co}_4\text{O}_{12}$: A Room Temperature Ferrimagnetic p^{2D} -Type Semiconductor. Advanced Electronic Materials, 2015, 1, 1500199.	2.6	6
54	Development of Hard X-ray and Gamma-ray Detector With Transition Edge Sensor for Nuclear Materials Analysis. IEEE Transactions on Applied Superconductivity, 2015, 25, 1-3.	1.1	6

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55	Magnetic Generation and Switching of Topological Quantum Phases in a Trivial Semimetal $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mi} \rangle \hat{\pm} \langle \text{mml:mi} \rangle \langle \text{mml:mtext} \rangle \hat{\wedge} \langle \text{mml:mtext} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mi} \rangle \text{EuP} \langle \text{mml:mi} \rangle \langle \text{mml:mtext} \rangle$ Physical Review X, 2022, 12, .	2.8	6
56	Clustering algorithm with adaptive shaping method for CdZnTe detectors. IEEE Transactions on Nuclear Science, 2002, 49, 3295-3299.	1.2	5
57	Design of new front-end electronics for animal PET. , 0, , .		5
58	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
59	Distinct physical behaviors of $\text{LaFe}_{1-\gamma}\text{CoAsO}_{0.89\text{F}0.11}$ between the superconducting and nonsuperconducting metallic regions of γ divided by $\gamma \approx 0.05$. Physica C: Superconductivity and Its Applications, 2010, 470, S475-S477.	0.6	5
60	High pressure synthesis of a quasi-one-dimensional GdFeO ₃ -type perovskite PrCuO ₃ with nearly divalent Cu ions. Chemical Communications, 2019, 55, 8931-8934.	2.2	5
61	Large Magneto-piezoelectric Effect in EuMnBi ₂ Single Crystal at Low Temperatures. Scientific Reports, 2020, 10, 7574.	1.6	5
62	Title is missing!. Genetic Programming and Evolvable Machines, 2001, 2, 289-299.	1.5	4
63	Design of an Optical Absorption Cavity for Titanium Transition Edge Sensors. Journal of Low Temperature Physics, 2008, 151, 46-50.	0.6	4
64	A new multi-level time over threshold method for energy resolving multi-channel systems. , 2008, , .		4
65	A new dynamic time over threshold method. , 2009, , .		4
66	Development of a Compton Camera based on digital SiPMs and GAGG crystals. , 2013, , .		4
67	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
68	Surface multipoint microelectrode for direct recording of auditory evoked potentials on the auditory cortex of a rat. , 0, , .		3
69	Development of a multi-channel waveform-sampling front-end ASIC and DOI detector for APD based animal PET. , 2003, , .		3
70	Development of a Transition Edge Sensor Gamma Ray Microcalorimeter with an Epoxy Coupled Bulk Lead Absorber. , 2009, , .		3
71	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
72	Study of Nb and NbN Resonators at 0.1 K for Low-Noise Microwave SQUID Multiplexers. IEEE Transactions on Applied Superconductivity, 2017, 27, 1-5.	1.1	3

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73	Density functional theory without the Born-Oppenheimer approximation and its application. International Journal of Quantum Chemistry, 1998, 70, 659-669.	1.0	3
74	High-Pressure Synthesis of a Massive and Non-Symmorphic Dirac Semimetal Candidate MoP ₄ . Journal of the Physical Society of Japan, 2021, 90, .	0.7	3
75	Development of ³ He MSGC for neutron scattering experiment. IEEE Transactions on Nuclear Science, 2002, 49, 1634-1637.	1.2	2
76	Multi-Channel Waveform Sampling ASIC for Animal PET System. , 2006, , .		2
77	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
78	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
79	High-pressure synthesis of $\text{BaMn}_2\text{RhO}_9$, a rhodate analog of the layered perovskite Sr-ruthenate. Physical Review Materials, 2021, 5, .		2
80	High energy particle transport in laser fusion. AIP Conference Proceedings, 1994, , .	0.3	1
81	A digital waveform discrimination system for an NE213 scintillator using a VXIbus general purpose waveform digitizer. , 0, , .		1
82	Development of a waveform sampling front-end ASIC for PET. , 0, , .		1
83	A 12-Channel CMOS Preamplifier-Shaper-Discriminator ASIC for APD and Gas Counters. , 0, , .		1
84	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
85	Simulation of Transient Response of Ir-TES for Position-Sensitive TES with Waveform Domain Multiplexing. Journal of Low Temperature Physics, 2008, 151, 155-160.	0.6	1
86	Pulse train multiplexing method for pixellated gamma detectors. , 2008, , .		1
87	2-Dimensional He-3 M-MSGC with floating pads. , 2010, , .		1
88	Design and fabrication of endoscope-type Compton camera and its real time imaging system. , 2012, , .		1
89	Dynamic time-over-threshold method for multi-channel APD based gamma-ray detectors. , 2012, , .		1
90	Microstructure Boron detector for high efficiency thermal neutron detection. , 2013, , .		1

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91	Development of a Small-Pixel Ir-TES for Optical Applications. Journal of Low Temperature Physics, 2018, 193, 344-348.	0.6	1
92	Development of a two-dimensional multi-grid-type microstrip gas chamber using global-local grouping method. , 0, , .		0
93	A fast readout method for an imaging plate using wavelength shifting fibers and line-shaped laser. , 0, , .		0
94	The use of 1.5 μ m infrared light from a cooled scintillator for optical fiber based system. , 0, , .		0
95	Preliminary study on an imaging system with a two-dimensional photodetector and a thermoluminescent plate. , 0, , .		0
96	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
97	Radiation distribution measurements with optical fibers in high radiation fields. , 0, , .		0
98	Position readout of MSGC by position encoding into signal pulses. , 0, , .		0
99	Readout characteristics of an imaging plate by fast laser pulses. , 0, , .		0
100	The photo-electronic properties of porous Si/C/sub 60/ junction. , 0, , .		0
101	Lateral growth of silicon films from metal solutions [for solar cells]. , 0, , .		0
102	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
103	Development of ³ He MSGC for neutron scattering experiment. , 0, , .		0
104	Clustering algorithm with adaptive shaping method for CdZnTe detectors. , 0, , .		0
105	Characteristics of a SrBPO/sub 5:/Eu/sub 2+/ material as a neutron storage phosphor. , 0, , .		0
106	Accessing cortical tonotopic organization by microstimulation of cochlear nucleus. , 0, , .		0
107	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
108	Digital signal processing based on a clustering algorithm for Ir/Au TES microcalorimeter. , 0, , .		0

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109	Multi-channel CMOS ASIC preamplifiers for APD and MSGC readouts. , 2004, , .		0
110	Development of One-Dimensional Neutron Microstrip Gas Counter with Cathode Encodeing. , 0, , .		0
111	An Ultra-Long Global-Local Grouping 1-D MSGC for Very-Large-Area Gas Detector. , 0, , .		0
112	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
113	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
114	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
115	Development of a He-3 MicroStrip Tube for neutron scattering. , 2006, , .		0
116	Global-local-grouping multi-grid-type MSGC for neutron applications. , 2007, , .		0
117	NMR studies on the superconducting symmetry of iron pnictide systems. Physica C: Superconductivity and Its Applications, 2010, 470, S472-S474.	0.6	0
118	Application of dynamic time-over-threshold method to pixellated CdTe detector. , 2010, , .		0
119	Ultra linear dynamic Time-over-Threshold with a simple CR-RC filtering. , 2011, , .		0
120	Generation of sub-15fs pulses with multi-terawatt peak power at 100-Hz repetition rate. , 2011, , .		0
121	Performance of Glass GEM. , 2012, , .		0
122	Development of intra-operative PET probe for multi-modal endoscope. , 2012, , .		0
123	A feasibility study of portable compton camera for metastatic lymph node detection. , 2013, , .		0
124	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