

Tetsuya Kai

List of Publications by Year in descending order

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73
papers

1,344
citations

623734

14
h-index

345221

36
g-index

75
all docs

75
docs citations

75
times ranked

1169
citing authors

#	ARTICLE	IF	CITATIONS
1	Particle and Heavy Ion Transport code System, PHITS, version 2.52. Journal of Nuclear Science and Technology, 2013, 50, 913-923.	1.3	700
2	First neutron production utilizing J-PARC pulsed spallation neutron source JSNS and neutronic performance demonstrated. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2010, 620, 159-165.	1.6	89
3	Materials and Life Science Experimental Facility (MLF) at the Japan Proton Accelerator Research Complex II: Neutron Scattering Instruments. Quantum Beam Science, 2017, 1, 9.	1.2	69
4	The energy-resolved neutron imaging system, RADEN. Review of Scientific Instruments, 2020, 91, 043302.	1.3	51
5	Coupled hydrogen moderator optimization with ortho/para hydrogen ratio. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2004, 523, 398-414.	1.6	42
6	Overview of particle and heavy ion transport code system PHITS. Annals of Nuclear Energy, 2015, 82, 110-115.	1.8	39
7	Neutronic studies on decoupled hydrogen moderator for a short-pulse spallation source. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2005, 539, 345-362.	1.6	27
8	Time-of-flight neutron Bragg-edge transmission imaging of microstructures in bent steel plates. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 675, 19-31.	5.6	27
9	Beam commissioning for neutron and muon facility at J-PARC. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2009, 600, 41-43.	1.6	22
10	Commissioning start of Energy-Resolved Neutron Imaging System, RADEN in J-PARC. Neutron News, 2015, 26, 11-14.	0.2	22
11	Neutronic performance of rectangular and cylindrical coupled hydrogen moderators in wide-angle beam extraction of low-energy neutrons. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2005, 550, 329-342.	1.6	21
12	Visibility Estimation for Neutron Resonance Absorption Radiography using a Pulsed Neutron Source. Physics Procedia, 2013, 43, 111-120.	1.2	20
13	Research Activities on Neutronics under ASTE Collaboration at AGS/BNL. Journal of Nuclear Science and Technology, 2002, 39, 1155-1160.	1.3	16
14	Neutronics of a poisoned para-hydrogen moderator for a pulsed spallation neutron source. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2007, 574, 407-419.	1.6	15
15	Measurements of Neutron-induced Fission Cross Section of Americium-243 from Thermal Neutron Energy to 15 keV Using Lead Slowing-down Spectrometer and Thermal Neutron Facility. Journal of Nuclear Science and Technology, 1999, 36, 20-28.	1.3	13
16	Optimization of Coupled and Decoupled Hydrogen Moderators for a Short-pulse Spallation Source. Journal of Neutron Research, 2003, 11, 13-23.	1.1	13
17	Polarization analysis for magnetic field imaging at RADEN in J-PARC/MLF. Journal of Physics: Conference Series, 2017, 862, 012025.	0.4	13
18	Neutron Bragg-edge transmission imaging for microstructure and residual strain in induction hardened gears. Scientific Reports, 2021, 11, 4155.	3.3	12

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19	Neutronic Optimization of Premoderator and Reflector for Decoupled Hydrogen Moderator in 1 MW Spallation Neutron Source. Journal of Nuclear Science and Technology, 2002, 39, 827-837.	1.3	9
20	Optimization of Coupled Hydrogen Moderator for a Short Pulse Spallation Source. Journal of Nuclear Science and Technology, 2002, 39, 120-128.	1.3	9
21	Advanced design of high-intensity beam transport line in J-PARC. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2006, 562, 638-641.	1.6	9
22	Reliability Estimation of Neutron Resonance Thermometry Using Tantalum and Tungsten. Physics Procedia, 2017, 88, 306-313.	1.2	7
23	Recent Improvements of Particle and Heavy Ion Transport code System: PHITS. EPJ Web of Conferences, 2017, 153, 06008.	0.3	7
24	Gamma dose measurements and spectroscopy analysis for spallation products in JSNS mercury circulation system. Progress in Nuclear Science and Technology, 2011, 1, 501-504.	0.3	7
25	Tracer diffusion coefficients measurements on LaPO ₄ -dispersed LTP by means of neutron radiography. Solid State Ionics, 2022, 377, 115873.	2.7	7
26	Measurements of neutron induced fission cross-section for ²⁴² mAm from 0.003 eV to 10 keV using lead slowing-down spectrometer, thermal neutron facility and time-of-flight method. Annals of Nuclear Energy, 2001, 28, 723-739.	1.8	6
27	Optimization of Coupled Hydrogen Moderator for a Short Pulse Spallation Source.. Journal of Nuclear Science and Technology, 2002, 39, 120-128.	1.3	6
28	Neutronic Optimization of Premoderator and Reflector for Decoupled Hydrogen Moderator in 1 MW Spallation Neutron Source.. Journal of Nuclear Science and Technology, 2002, 39, 827-837.	1.3	6
29	Experiences on radioactivity handling for mercury target system in MLF/J-PARC. Progress in Nuclear Science and Technology, 2014, 4, 380-383.	0.3	5
30	Quantification of Localized Water Image in Under-Film Corroded Steel with High Spatial Resolution, High Time Resolution, and Wide View by Neutron Radiography. Materials Transactions, 2018, 59, 976-983.	1.2	5
31	Construction status of a general control system for the Materials and Life Science Experimental Facility (MLF) at J-PARC. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2009, 600, 75-77.	1.6	4
32	Counting-type neutron imaging detectors of the energy-resolved neutron imaging system RADEN at the J-PARC/MLF. , 2015, , .		4
33	A multi-technique tomography-based approach for non-invasive characterization of additive manufacturing components in view of vacuum/UHV applications: preliminary results. Rendiconti Lincei, 2021, 32, 463-477.	2.2	4
34	Operation status of interlock system of Materials and Life Science Experimental Facility (MLF) in J-PARC. Progress in Nuclear Science and Technology, 2014, 4, 264-267.	0.3	4
35	Measurements of Neutron-induced Fission Cross Section of Protactinium-231 from 0.1 eV to 10 keV with Lead Slowing-down Spectrometer and at 0.0253 eV with Thermal Neutron Facility. Journal of Nuclear Science and Technology, 1999, 36, 549-551.	1.3	3
36	Usersâ€™ beam interlock system at the Materials and Life Science Experimental Facility of J-PARC. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2009, 600, 176-178.	1.6	3

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37	Development of the next-generation micro pixel chamber-based neutron imaging detector ($\frac{1}{4}$ NID) for energy-resolved neutron imaging at the J-PARC/MLF. , 2016, , .		3
38	Neutron spectrum change with thermal moderator temperature in a compact electron accelerator-driven neutron source and its effects on spectroscopic neutron transmission imaging. Journal of Nuclear Science and Technology, 2019, 56, 221-227.	1.3	3
39	Spatial Resolution Test Targets Made of Gadolinium and Gold for Conventional and Resonance Neutron Imaging. , 2018, , .		3
40	Performance of Optical Devices for Energy-Selective Neutron Imaging in NOBORU at J-PARC. , 2014, , .		2
41	Characteristics of the 2012 model lithium-6 time-analyzer neutron detector (LiTA12) system as a high efficiency detector for resonance absorption imaging. Physica B: Condensed Matter, 2018, 551, 496-500.	2.7	2
42	Measurement of Doppler broadening of prompt gamma-rays from various zirconium- and ferro-borons. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2021, 991, 164964.	1.6	2
43	ICONE11-36090 Neutronic Studies on reflector materials of the target-moderator-reflector system in the Japan Spallation Neutron Source. The Proceedings of the International Conference on Nuclear Engineering (ICONE), 2003, 2003, 401.	0.0	2
44	Experimental Study on Cross Section Data of Mercury with D-T and ^{252}Cf Neutron Sources. Journal of Nuclear Science and Technology, 2002, 39, 986-989.	1.3	1
45	Developmental status of a server system for the MLF general control system. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2009, 600, 120-122.	1.6	1
46	Super-Resolution Processing for Pulsed Neutron Imaging System Using a High-Speed Camera. , 2015, , .		1
47	Evaluation of High-frame-rate Camera with Digital Accumulation System Combined with Neutron Color Image Intensifier for Energy Resolved Neutron Imaging. , 2018, , .		1
48	Development of a Polarization Analysis Method for Visualization of the Magnetic Field Distribution in a Small Electric Transformer Using Pulsed Polarized Neutron Imaging. , 2018, , .		1
49	Development of Energy-Resolved Neutron Imaging Detectors at RADEN. , 2018, , .		1
50	Neutron Imaging Analysis of Hydrogen Content in Pure Palladium and Aluminum Alloys. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 2019, 83, 434-440.	0.4	1
51	Visualization of phase distribution in lead-bismuth eutectic during one-dimensional solidification process. Journal of Visualization, 2019, 22, 889-895.	1.8	1
52	Development of AC Magnetic Field Imaging Technique Using Polarized Pulsed Neutrons at J-PARC. , 2015, , .		1
53	Custom-Made Shutter Block for Imaging Instrument "RADEN" at J-PARC. , 2015, , .		1
54	Spatial distribution and preferred orientation of crystalline microstructure of lead-bismuth eutectic. Journal of Nuclear Materials, 2022, , 153921.	2.7	1

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55	Integral Experiment on Induced Radioactivity and Decay-Heat of Mercury with 14 MeV Neutrons. Journal of Nuclear Science and Technology, 2002, 39, 963-966.	1.3	0
56	Development of a Three-Dimensional Computed Tomography System using High-Speed Camera at a Pulsed Neutron Source. , 2015, , .		0
57	A Micro Pixel Chamber Based Neutron Imaging Detector with Boron Converter for Energy-Resolved Neutron Imaging at J-PARC. , 2017, , .		0
58	Measurements of neutronic characteristics of rectangular and cylindrical coupled hydrogen moderators. Journal of Nuclear Science and Technology, 2018, 55, 283-289.	1.3	0
59	Off-gas processing system operations for mercury target vessel replacement at J-PARC. Journal of Physics: Conference Series, 2018, 1021, 012042.	0.4	0
60	Neutron Transmission Measurement and Simulation of Ta-181 for Neutron Resonance Thermometry. , 2019, , .		0
61	Feasibility Study of PCAA for Boride Identification in Simulated Melted Core Materials. , 2021, , .		0
62	Behavior of Tritium Release from a Stainless Vessel of the Mercury Target as a Spallation Neutron Source. , 2021, , .		0
63	Observation of Eu Adsorption Band in the CMPO/SiO ₂ -P Column by Neutron Resonance Absorption Imaging. , 2021, , .		0
64	Upgrade History and Present Status of the General Control System for the Materials and Life Science Experimental Facility at J-PARC. , 2021, , .		0
65	Unified Mercury Radioactivity Monitoring System at J-PARC and Its Operation Experiences. , 2021, , .		0
66	Application of General-Purpose Radiation Transport Code into Study for Laser-Produced Plasma Ions Acceleration. The Review of Laser Engineering, 2014, 42, 163.	0.0	0
67	Inner Observation of Canning Cadmium by Energy-Selective Neutron Imaging at NOBORU. , 2015, , .		0
68	Microstructure and Residual Strain Distribution in Cast Duplex Stainless Steel Studied by Neutron Imaging. , 2015, , .		0
69	Energy-resolved Neutron Imaging System "RADEN". Hamon, 2016, 26, 109-114.	0.0	0
70	Counting-type Neutron Imaging Detectors at RADEN/BL22. Hamon, 2017, 27, 24-28.	0.0	0
71	Development of High-Counting-Rate Neutron Detector for CP-Violation Search in Neutron-Induced Reactions. , 2018, , .		0
72	Development of Three-Dimensional Distribution Visualization Technology for Boron Using Energy Resolved Neutron-Imaging System (RADEN). , 2020, , .		0

#	ARTICLE	IF	CITATIONS
73	Investigation of radioactive samples for neutron capture reaction measurements using energy-resolved neutron imaging. Annals of Nuclear Energy, 2021, , 108828.	1.8	0