

Akihisa Takeuchi

List of Publications by Year in descending order

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64
papers

1,607
citations

304743

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docs citations

64
times ranked

1448
citing authors

#	ARTICLE	IF	CITATIONS
1	3-D Observation with Synchrotron Radiation X-ray CT. <i>Materia Japan</i> , 2022, 61, 65-71.	0.1	0
2	Initiation and propagation of small fatigue crack in beta titanium alloy observed through synchrotron radiation multiscale computed tomography. <i>Engineering Fracture Mechanics</i> , 2022, 263, 108308.	4.3	10
3	Three-dimensional microstructure and mineralogy of a cosmic symplectite in the Acfer 094 carbonaceous chondrite: Implication for its origin. <i>Geochimica Et Cosmochimica Acta</i> , 2022, 323, 220-241.	3.9	5
4	Multimodal assessment of mechanically induced transformation in metastable multi-phase steel using X-ray nano-tomography and pencil-beam diffraction tomography. <i>Acta Materialia</i> , 2022, 234, 117956.	7.9	3
5	Morphology of subsurface cracks in glass-ceramics induced by Vickers indentation observed by synchrotron X-ray multiscale tomography. <i>Scientific Reports</i> , 2022, 12, 6994.	3.3	23
6	Detection of small internal fatigue cracks in Ti-6Al-4V via synchrotron radiation nanocomputed tomography. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 2022, 45, 2693-2702.	3.4	8
7	Structural diverseness of neurons between brain areas and between cases. <i>Translational Psychiatry</i> , 2021, 11, 49.	4.8	6
8	High-energy x-ray nanotomography introducing an apodization Fresnel zone plate objective lens. <i>Review of Scientific Instruments</i> , 2021, 92, 023701.	1.3	25
9	Microstructural evolution of electrodes in sintering of multi-layer ceramic capacitors (MLCC) observed by synchrotron X-ray nano-CT. <i>Acta Materialia</i> , 2021, 206, 116605.	7.9	30
10	Discovery of primitive CO ₂ -bearing fluid in an aqueously altered carbonaceous chondrite. <i>Science Advances</i> , 2021, 7, .	10.3	16
11	Brain capillary structures of schizophrenia cases and controls show a correlation with their neuron structures. <i>Scientific Reports</i> , 2021, 11, 11768.	3.3	15
12	Nanoscale pore measurements in an all-solid-state lithium-ion battery with ultra-small-angle X-ray scattering (USAXS). <i>Journal of Power Sources Advances</i> , 2021, 12, 100076.	5.1	3
13	Bilaterally Asymmetric Helical Myofibrils in Ascidian Tadpole Larvae. <i>Frontiers in Cell and Developmental Biology</i> , 2021, 9, 800455.	3.7	1
14	An experimental system for time-resolved x-ray diffraction of deforming silicate melt at high temperature. <i>Review of Scientific Instruments</i> , 2020, 91, 095113.	1.3	7
15	Direct observations of nucleant TiB ₂ particles in cast aluminum by synchrotron radiation multiscale tomography. <i>Materialia</i> , 2020, 10, 100663.	2.7	7
16	Recent progress in synchrotron radiation 3D-4D nano-imaging based on X-ray full-field microscopy. <i>Microscopy (Oxford, England)</i> , 2020, 69, 259-279.	1.5	19
17	Assessment of hydrogen embrittlement via image-based techniques in Al-Zn-Mg-Cu aluminum alloys. <i>Acta Materialia</i> , 2019, 176, 96-108.	7.9	63
18	Dendrite fragmentation induced by massive-like $\gamma \rightarrow \beta$ transformation in Fe-C alloys. <i>Nature Communications</i> , 2019, 10, 3183.	12.8	65

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19	Probing Surface Morphology using X-ray Grating Interferometry. Scientific Reports, 2019, 9, 14120.	3.3	8
20	3D multiscale-imaging of processing-induced defects formed during sintering of hierarchical powder packings. Scientific Reports, 2019, 9, 11595.	3.3	27
21	Hydrogen partitioning behavior and related hydrogen embrittlement in Al-Zn-Mg alloys. Engineering Fracture Mechanics, 2019, 216, 106503.	4.3	23
22	Three-dimensional alteration of neurites in schizophrenia. Translational Psychiatry, 2019, 9, 85.	4.8	28
23	Discovery of fossil asteroidal ice in primitive meteorite Acfer 094. Science Advances, 2019, 5, eaax5078.	10.3	33
24	Development of an X-ray imaging detector to resolve 200-nm line-and-space patterns by using transparent ceramics layers bonded by solid-state diffusion. Optics Letters, 2019, 44, 1403.	3.3	31
25	Evaluation of Macroscopic Mechanical Properties from 3-D Visualization of Microstructure in Sintering. Funtai Oyobi Fumatsu Yakin/Journal of the Japan Society of Powder and Powder Metallurgy, 2019, 66, 604-610.	0.2	0
26	Nondestructive Multiscale X-Ray Tomography by Combining Microtomography and High-Energy Phase-Contrast Nanotomography. Microscopy and Microanalysis, 2018, 24, 108-109.	0.4	26
27	Observation of Morphology Changes of Fine Eutectic Si Phase in Al-10%Si Cast Alloy during Heat Treatment by Synchrotron Radiation Nanotomography. Materials, 2018, 11, 1308.	2.9	12
28	The Role of Hydrogen on the Local Fracture Toughness Properties of 7XXX Aluminum Alloys. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2018, 49, 5368-5381.	2.2	6
29	Fresnel zone plate with apodized aperture for hard X-ray Gaussian beam optics. Journal of Synchrotron Radiation, 2017, 24, 586-594.	2.4	14
30	Imaging properties and its improvements of scanning/imaging x-ray microscope. AIP Conference Proceedings, 2016, , .	0.4	0
31	Recent progress of hard x-ray imaging microscopy and microtomography at BL37XU of SPring-8. AIP Conference Proceedings, 2016, , .	0.4	10
32	A method for estimating spatial resolution of real image in the Fourier domain. Journal of Microscopy, 2016, 261, 57-66.	1.8	45
33	Influences of hydrogen on deformation and fracture behaviors of high Zn 7XXX aluminum alloys. International Journal of Fracture, 2016, 200, 13-29.	2.2	37
34	The True Origin of Ductile Fracture in Aluminum Alloys. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2014, 45, 765-776.	2.2	91
35	Three-dimensional network of Drosophila brain hemisphere. Journal of Structural Biology, 2013, 184, 271-279.	2.8	30
36	Three-dimensional phase-contrast X-ray microtomography with scanning-imaging X-ray microscope optics. Journal of Synchrotron Radiation, 2013, 20, 793-800.	2.4	14

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37	Development of Scanning-Imaging X-Ray Microscope for Quantitative Three-Dimensional Phase Contrast Microimaging. <i>Journal of Physics: Conference Series</i> , 2013, 463, 012034.	0.4	1
38	Hard X-ray Imaging Microscopy using X-ray Guide Tube as Beam Condenser for Field Illumination. <i>Journal of Physics: Conference Series</i> , 2013, 463, 012028.	0.4	9
39	Differential phase contrast x-ray microimaging with scanning-imaging x-ray microscope optics. <i>Review of Scientific Instruments</i> , 2012, 83, 083701.	1.3	4
40	Three-Dimensional Structure of Hayabusa Samples: Origin and Evolution of Itokawa Regolith. <i>Science</i> , 2011, 333, 1125-1128.	12.6	249
41	Current Status of Microtomography with Synchrotron Radiation X-ray Source. <i>Journal of the Vacuum Society of Japan</i> , 2011, 54, 47-55.	0.3	5
42	Three-dimensional X-ray fluorescence imaging with confocal full-field X-ray microscope. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2010, 616, 261-265.	1.6	9
43	Microtomographic Analysis of Neuronal Circuits of Human Brain. <i>Cerebral Cortex</i> , 2010, 20, 1739-1748.	2.9	35
44	Differential Phase-Contrast Scanning X-Ray Microscope For Observation Of Low-Z element Specimen. <i>AIP Conference Proceedings</i> , 2010, , .	0.4	5
45	X-ray Holographic Microscopy by Double-Prism Interferometer. <i>Japanese Journal of Applied Physics</i> , 2010, 49, 016601.	1.5	6
46	X-ray Microfocusing by Combination of Grazing-Incidence Spherical-Concave Mirrors. <i>Japanese Journal of Applied Physics</i> , 2010, 49, 106701.	1.5	3
47	Confocal full-field X-ray microscope for novel three-dimensional X-ray imaging. <i>Journal of Synchrotron Radiation</i> , 2009, 16, 616-621.	2.4	27
48	Zernike phase-contrast x-ray microscope with pseudo-Kohler illumination generated by sectored (polygon) condenser plate. <i>Journal of Physics: Conference Series</i> , 2009, 186, 012020.	0.4	35
49	Evaluation of the improved three-dimensional resolution of a synchrotron radiation computed tomograph using a micro-fabricated test pattern. <i>Journal of Synchrotron Radiation</i> , 2008, 15, 648-654.	2.4	13
50	Three-dimensional microtomographic imaging of human brain cortex. <i>Brain Research</i> , 2008, 1199, 53-61.	2.2	22
51	Hard X-ray Holographic Microscopy using Refractive Prism and Fresnel Zone Plate Objective. <i>AIP Conference Proceedings</i> , 2007, , .	0.4	6
52	High-energy x-ray microbeam with total-reflection mirror optics. <i>Review of Scientific Instruments</i> , 2007, 78, 053713.	1.3	27
53	Development of micro-tomography system with Fresnel zone plate optics at SPring-8. , 2006, , .		35
54	Performance Test of Fresnel Zone Plate with 50 nm Outermost Zone Width in Hard X-ray Region. <i>Japanese Journal of Applied Physics</i> , 2005, 44, 1994-1998.	1.5	98

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55	Kirkpatrick-Baez type x-ray focusing mirror fabricated by the bent-polishing method. Review of Scientific Instruments, 2005, 76, 093708.	1.3	22
56	Hard x-ray holographic microscopy using refractive prism and Fresnel zone plate objective. Review of Scientific Instruments, 2005, 76, 093702.	1.3	17
57	Construction and Commissioning of A 248 m-long Beamline with X-ray Undulator Light Source. AIP Conference Proceedings, 2004, , .	0.4	64
58	Sub-100 nm Hard X-Ray Microbeam Generation with Fresnel Zone Plate Optics. Japanese Journal of Applied Physics, 2003, 42, L132-L134.	1.5	35
59	Submicrometer-resolution three-dimensional imaging with hard x-ray imaging microtomography. Review of Scientific Instruments, 2002, 73, 4246-4249.	1.3	50
60	At wavelength focusing properties evaluation of the Wolter type grazing incidence mirror. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2001, 467-468, 302-304.	1.6	6
61	Hard X-Ray Microtomography Using X-Ray Imaging Optics. Japanese Journal of Applied Physics, 2001, 40, 1499-1503.	1.5	11
62	<title>X-ray imaging microscope with a partial coherent illumination</title>. , 2001, , .		5
63	Full-field x-ray fluorescence imaging microscope with a Wolter mirror. Review of Scientific Instruments, 2000, 71, 1279-1285.	1.3	17
64	Differential Phase X-ray Imaging Microscopy with X-ray Talbot Interferometer. Applied Physics Express, 0, 1, 117002.	2.4	50