

Kazuto Yamauchi

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

87

papers

3,077

citations

28

h-index

54

g-index

96

ext. papers

3,453

ext. citations

3.9

avg, IF

4.41

L-index

#	Paper	IF	Citations
87	Hard X-ray nanoprobe scanner. <i>IUCrJ</i> , 2021 , 8, 713-718	4.7	1
86	High-Speed Etching of Silicon Carbide Wafer Using High-Pressure SF6 Plasma. <i>ECS Journal of Solid State Science and Technology</i> , 2021 , 10, 014005	2	1
85	Optimal deformation procedure for hybrid adaptive x-ray mirror based on mechanical and piezo-driven bending system.. <i>Review of Scientific Instruments</i> , 2021 , 92, 123706	1.7	1
84	High-throughput deterministic plasma etching using array-type plasma generator system.. <i>Review of Scientific Instruments</i> , 2021 , 92, 125107	1.7	
83	Development of an Experimental Platform for Combinative Use of an XFEL and a High-Power Nanosecond Laser. <i>Applied Sciences (Switzerland)</i> , 2020 , 10, 2224	2.6	9
82	An abrasive-free chemical polishing method assisted by nickel catalyst generated by in situ electrochemical plating. <i>Review of Scientific Instruments</i> , 2020 , 91, 045108	1.7	2
81	Generation of an X-ray nanobeam of a free-electron laser using reflective optics with speckle interferometry. <i>Journal of Synchrotron Radiation</i> , 2020 , 27, 883-889	2.4	5
80	Focus characterization of an X-ray free-electron laser by intensity correlation measurement of X-ray fluorescence. <i>Journal of Synchrotron Radiation</i> , 2020 , 27, 1366-1371	2.4	1
79	X-Ray Single-Grating Interferometry for Wavefront Measurement and Correction of Hard X-Ray Nanofocusing Mirrors. <i>Sensors</i> , 2020 , 20,	3.8	2
78	Catalyzed chemical polishing of SiO glasses in pure water. <i>Review of Scientific Instruments</i> , 2019 , 90, 045115	1.7	6
77	Development of a glue-free bimorph mirror for use in vacuum chambers. <i>Review of Scientific Instruments</i> , 2019 , 90, 021702	1.7	5
76	A micro channel-cut crystal X-ray monochromator for a self-seeded hard X-ray free-electron laser. <i>Journal of Synchrotron Radiation</i> , 2019 , 26, 1496-1502	2.4	6
75	Systematic-error-free wavefront measurement using an X-ray single-grating interferometer. <i>Review of Scientific Instruments</i> , 2018 , 89, 043106	1.7	13
74	Performance of a hard X-ray split-and-delay optical system with a wavefront division. <i>Journal of Synchrotron Radiation</i> , 2018 , 25, 20-25	2.4	18
73	High-Resolution Full-Field X-ray Microscope for 20-keV X-rays with Multilayer Imaging Mirrors. <i>Microscopy and Microanalysis</i> , 2018 , 24, 288-289	0.5	2
72	Reflective Imaging Optics Using Concave and Convex Mirrors for a Compact and Achromatic Full-field X-ray Microscope.. <i>Microscopy and Microanalysis</i> , 2018 , 24, 276-277	0.5	2
71	Generation of apodized X-ray illumination and its application to scanning and diffraction microscopy. <i>Journal of Synchrotron Radiation</i> , 2017 , 24, 142-149	2.4	7

70	50-nm-resolution full-field X-ray microscope without chromatic aberration using total-reflection imaging mirrors. <i>Scientific Reports</i> , 2017 , 7, 46358	4.9	59
69	Ellipsoidal mirror for two-dimensional 100-nm focusing in hard X-ray region. <i>Scientific Reports</i> , 2017 , 7, 16408	4.9	12
68	Measurement of the X-ray Spectrum of a Free Electron Laser with a Wide-Range High-Resolution Single-Shot Spectrometer. <i>Applied Sciences (Switzerland)</i> , 2017 , 7, 584	2.6	19
67	Characterization of temporal coherence of hard X-ray free-electron laser pulses with single-shot interferograms. <i>IUCrJ</i> , 2017 , 4, 728-733	4.7	21
66	Dynamic fracture of tantalum under extreme tensile stress. <i>Science Advances</i> , 2017 , 3, e1602705	14.3	30
65	Advancement of Hard X-ray Nano-focusing Ellipsoidal Mirror at SPring-8. <i>Synchrotron Radiation News</i> , 2016 , 29, 27-31	0.6	2
64	High-efficiency planarization method combining mechanical polishing and atmospheric-pressure plasma etching for hard-to-machine semiconductor substrates. <i>Mechanical Engineering Journal</i> , 2016 , 3, 15-00527-15-00527	0.5	
63	Stitching interferometry for ellipsoidal x-ray mirrors. <i>Review of Scientific Instruments</i> , 2016 , 87, 051905	1.7	9
62	Damage threshold of coating materials on x-ray mirror for x-ray free electron laser. <i>Review of Scientific Instruments</i> , 2016 , 87, 051801	1.7	17
61	Nearly diffraction-limited X-ray focusing with variable-numerical-aperture focusing optical system based on four deformable mirrors. <i>Scientific Reports</i> , 2016 , 6, 24801	4.9	28
60	Development of speckle-free channel-cut crystal optics using plasma chemical vaporization machining for coherent x-ray applications. <i>Review of Scientific Instruments</i> , 2016 , 87, 063118	1.7	10
59	Imaging of intracellular fatty acids by scanning X-ray fluorescence microscopy. <i>FASEB Journal</i> , 2016 , 30, 4149-4158	0.9	10
58	Simulation and Experimental Study of Wavefront Measurement Accuracy of the Pencil-Beam Method. <i>Synchrotron Radiation News</i> , 2016 , 29, 32-36	0.6	6
57	Hard X-ray nanofocusing using adaptive focusing optics based on piezoelectric deformable mirrors. <i>Review of Scientific Instruments</i> , 2015 , 86, 043102	1.7	19
56	Development of ion beam figuring system with electrostatic deflection for ultraprecise X-ray reflective optics. <i>Review of Scientific Instruments</i> , 2015 , 86, 093103	1.7	8
55	Catalyst-Assisted Electroless Flattening of Ge Surfaces in Dissolved-O ₂ -Containing Water. <i>ChemElectroChem</i> , 2015 , 2, 1656-1659	4.3	5
54	3D visualization of XFEL beam focusing properties using LiF crystal X-ray detector. <i>Scientific Reports</i> , 2015 , 5, 17713	4.9	27
53	Saturable absorption of intense hard X-rays in iron. <i>Nature Communications</i> , 2014 , 5, 5080	17.4	74

52	Generation of 10(20) W cm ⁻² hard X-ray laser pulses with two-stage reflective focusing system. <i>Nature Communications</i> , 2014 , 5, 3539	17.4	105
51	Special issue on atomically controlled fabrication technology. <i>Nanoscale Research Letters</i> , 2014 , 9, 232	5	
50	X-ray two-photon absorption competing against single and sequential multiphoton processes. <i>Nature Photonics</i> , 2014 , 8, 313-316	33.9	143
49	Optics for coherent X-ray applications. <i>Journal of Synchrotron Radiation</i> , 2014 , 21, 976-85	2.4	31
48	High-resolution multislice x-ray ptychography of extended thick objects. <i>Physical Review Letters</i> , 2014 , 112, 053903	7.4	75
47	A Precision Grazing-incidence Angle Error Measurement of a Hard X-ray Condenser Mirror Using Single-grating Interferometry. <i>Synchrotron Radiation News</i> , 2013 , 26, 13-16	0.6	10
46	Focusing of X-ray free-electron laser pulses with reflective optics. <i>Nature Photonics</i> , 2013 , 7, 43-47	33.9	195
45	Bragg x-ray ptychography of a silicon crystal: Visualization of the dislocation strain field and the production of a vortex beam. <i>Physical Review B</i> , 2013 , 87,	3.3	74
44	High-resolution and high-sensitivity phase-contrast imaging by focused hard x-ray ptychography with a spatial filter. <i>Applied Physics Letters</i> , 2013 , 102, 094102	3.4	17
43	Nanofocusing of X-Ray Free Electron Laser. <i>The Review of Laser Engineering</i> , 2012 , 40, 691	0	1
42	Influence of gallium additives on surface roughness for photoelectrochemical planarization of GaN. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2011 , 8, 2223-2225		3
41	Towards high-resolution ptychographic x-ray diffraction microscopy. <i>Physical Review B</i> , 2011 , 83,	3.3	58
40	Multiscale element mapping of buried structures by ptychographic x-ray diffraction microscopy using anomalous scattering. <i>Applied Physics Letters</i> , 2011 , 99, 131905	3.4	23
39	Single-nanometer focusing of hard x-rays by Kirkpatrick-Baez mirrors. <i>Journal of Physics Condensed Matter</i> , 2011 , 23, 394206	1.8	102
38	Breaking the 10 nm barrier in hard-X-ray focusing. <i>Nature Physics</i> , 2010 , 6, 122-125	16.2	413
37	High-resolution projection image reconstruction of thick objects by hard x-ray diffraction microscopy. <i>Physical Review B</i> , 2010 , 82,	3.3	31
36	Optimized Logarithmic Roller Crowning Design of Cylindrical Roller Bearings and Its Experimental Demonstration. <i>Tribology Transactions</i> , 2010 , 53, 909-916	1.8	29
35	Crystal Machining Using Atmospheric Pressure Plasma 2010 , 313-330		

34	Termination dependence of surface stacking at 4H-SiC(0001)001: Density functional theory calculations. <i>Physical Review B</i> , 2009 , 79,	3.3	21
33	Feasibility study of high-resolution coherent diffraction microscopy using synchrotron x rays focused by KirkpatrickBaez mirrors. <i>Journal of Applied Physics</i> , 2009 , 105, 083106	2.5	21
32	Observation of electromigration in a Cu thin line by in situ coherent x-ray diffraction microscopy. <i>Journal of Applied Physics</i> , 2009 , 105, 124911	2.5	3
31	A Study on a Surface Preparation Method for Single-Crystal SiC Using an Fe Catalyst. <i>Journal of Electronic Materials</i> , 2009 , 38, 159-163	1.9	24
30	High-resolution diffraction microscopy using the plane-wave field of a nearly diffraction limited focused x-ray beam. <i>Physical Review B</i> , 2009 , 80,	3.3	56
29	Element-specific hard x-ray diffraction microscopy. <i>Physical Review B</i> , 2008 , 78,	3.3	27
28	Direct determination of the wave field of an x-ray nanobeam. <i>Physical Review A</i> , 2008 , 77,	2.6	34
27	Catalyst-referred etching of 4H?SiC substrate utilizing hydroxyl radicals generated from hydrogen peroxide molecules. <i>Surface and Interface Analysis</i> , 2008 , 40, 998-1001	1.5	34
26	Stitching interferometric metrology for steeply curved x-ray mirrors. <i>Surface and Interface Analysis</i> , 2008 , 40, 1023-1027	1.5	12
25	Highly accurate differential deposition for X-ray reflective optics. <i>Surface and Interface Analysis</i> , 2008 , 40, 1019-1022	1.5	23
24	Coherent x-ray diffraction measurements of Cu thin lines. <i>Surface and Interface Analysis</i> , 2008 , 40, 1046-1049	1.5	1
23	Ultraprecision finishing technique by numerically controlled sacrificial oxidation. <i>Journal of Crystal Growth</i> , 2008 , 310, 2173-2177	1.6	10
22	Catalyst-referred etching of silicon. <i>Science and Technology of Advanced Materials</i> , 2007 , 8, 162-165	7.1	7
21	Fabrication of damascene Cu wirings using solid acidic catalyst. <i>Science and Technology of Advanced Materials</i> , 2007 , 8, 166-169	7.1	1
20	Investigation of the Surface Removal Process of Silicon Carbide in Elastic Emission Machining. <i>Journal of Electronic Materials</i> , 2007 , 36, 92-97	1.9	14
19	Global High-Accuracy Intercomparison of Slope Measuring Instruments. <i>AIP Conference Proceedings</i> , 2007 ,	0	5
18	Fabrication of ultrathin and highly uniform silicon on insulator by numerically controlled plasma chemical vaporization machining. <i>Review of Scientific Instruments</i> , 2007 , 78, 086102	1.7	17
17	Atomic-scale flattening of SiC surfaces by electroless chemical etching in HF solution with Pt catalyst. <i>Applied Physics Letters</i> , 2007 , 90, 202106	3.4	65

16	Ultraprecision Machining Method for Ultraprecise Aspherical Mirror. <i>The Review of Laser Engineering</i> , 2007 , 35, 162-167	0	
15	Efficient focusing of hard x rays to 25nm by a total reflection mirror. <i>Applied Physics Letters</i> , 2007 , 90, 051903	3.4	173
14	At-wavelength figure metrology of hard x-ray focusing mirrors. <i>Review of Scientific Instruments</i> , 2006 , 77, 063712	1.7	50
13	Wave-optical evaluation of interference fringes and wavefront phase in a hard-x-ray beam totally reflected by mirror optics. <i>Applied Optics</i> , 2005 , 44, 6927-32	1.7	36
12	Fabrication of elliptically figured mirror for focusing hard x rays to size less than 50nm. <i>Review of Scientific Instruments</i> , 2005 , 76, 063708	1.7	59
11	Preparation of ultrasMOOTH and defect-free 4H-SiC(0001) surfaces by elastic emission machining. <i>Journal of Electronic Materials</i> , 2005 , 34, 439-443	1.9	16
10	Relative angle determinable stitching interferometry for hard x-ray reflective optics. <i>Review of Scientific Instruments</i> , 2005 , 76, 045102	1.7	93
9	Fabrication of elliptical mirror at nanometer-level accuracy for hard x-ray focusing by numerically controlled plasma chemical vaporization machining. <i>Review of Scientific Instruments</i> , 2003 , 74, 4549-4553	1.7	87
8	Microstitching interferometry for x-ray reflective optics. <i>Review of Scientific Instruments</i> , 2003 , 74, 2894-2898	1.7	117
7	Figuring with subnanometer-level accuracy by numerically controlled elastic emission machining. <i>Review of Scientific Instruments</i> , 2002 , 73, 4028-4033	1.7	197
6	First-Principles Evaluations of Machinability Dependency on Powder Material in Elastic Emission Machining. <i>Materials Transactions</i> , 2001 , 42, 2290-2294	1.3	5
5	Development of plasma chemical vaporization machining. <i>Review of Scientific Instruments</i> , 2000 , 71, 4627-4631	1.7	89
4	Evaluation of elastic emission machined surfaces by scanning tunneling microscopy. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1990 , 8, 621-624	2.9	30
3	A design of large current ion gun employing liquid metal ion source. <i>Review of Scientific Instruments</i> , 1990 , 61, 1874-1879	1.7	2
2	Ultra high vacuum compatible metal ion beam surface modification system. <i>Review of Scientific Instruments</i> , 1990 , 61, 3412-3415	1.7	
1	Numerically Controlled EEM (Elastic Emission Machining) System for Ultraprecision Figuring and Smoothing of Aspherical Surfaces	607-620	1