

Wataru Yashiro

List of Publications by Year in descending order

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118
papers

2,391
citations

257450

24
h-index

223800

46
g-index

118
all docs

118
docs citations

118
times ranked

1268
citing authors

#	ARTICLE	IF	CITATIONS
1	Dynamic X-ray elastography: A new tool for characterizing soft materials. MRS Communications, 2021, 11, 46-50.	1.8	0
2	Exploring Frontiers of 4D X-ray Tomography. Applied Sciences (Switzerland), 2021, 11, 8868.	2.5	11
3	High-speed rotating device for X-ray tomography with 10 ms temporal resolution. Journal of Synchrotron Radiation, 2021, 28, 322-326.	2.4	16
4	Regularized phase shift estimation in X-ray grating interferometry. OSA Continuum, 2021, 4, 2813.	1.8	0
5	Dynamic X-ray elastography using a pulsed photocathode source. Scientific Reports, 2021, 11, 24128.	3.3	1
6	X-ray elastography by visualizing propagating shear waves. Applied Physics Express, 2020, 13, 042004.	2.4	6
7	A multi-beam X-ray imaging detector using a branched optical fiber bundle. Japanese Journal of Applied Physics, 2020, 59, 038003.	1.5	11
8	High-speed multi-beam X-ray imaging using a lens coupling detector system. Applied Physics Express, 2020, 13, 077002.	2.4	11
9	Multibeam x-ray optical system for high-speed tomography. Optica, 2020, 7, 514.	9.3	26
10	Fabrication of multi-blade crystals for hard-X-ray multi-beam imaging system. Japanese Journal of Applied Physics, 2020, 59, 092001.	1.5	7
11	Fabrication of X-ray absorption grating using an ultracentrifuge machine. Japanese Journal of Applied Physics, 2019, 58, 088003.	1.5	7
12	Probing Surface Morphology using X-ray Grating Interferometry. Scientific Reports, 2019, 9, 14120.	3.3	8
13	Hard X-ray imaging microscopy with self-imaging phenomenon. Microscopy (Oxford, England), 2018, 67, 303-316.	1.5	9
14	Optical Imaging with Moiré Fringes. Vacuum and Surface Science, 2018, 61, 727-732.	0.1	0
15	Optimizing Imprinting Condition for High Aspect Grating of Pd-based Metallic Glass. Funtai Oyobi Fumatsu Yakin/Journal of the Japan Society of Powder and Powder Metallurgy, 2018, 65, 52-56.	0.2	0
16	Millisecond-order X-ray phase tomography with a fringe-scanning method. Applied Physics Express, 2018, 11, 122501.	2.4	31
17	Efficient phase imaging using wavelength-resolved neutron Talbot-Lau interferometry with TOF method. Europhysics Letters, 2018, 123, 12002.	2.0	8
18	Effect of insufficient temporal coherence on visibility contrast in X-ray grating interferometry. Optics Express, 2018, 26, 1012.	3.4	15

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19	31st Japanese Society for Synchrotron Radiation Research Annual Meeting and Synchrotron Radiation Science Symposium (JSR2018). Synchrotron Radiation News, 2018, 31, 31-32.	0.8	0
20	Photon detection efficiency of laboratory-based x-ray phase contrast imaging techniques for mammography: a Monte Carlo study. Physics in Medicine and Biology, 2017, 62, 7394-7406.	3.0	4
21	Formation of extremely high-aspect Si sub-micron patterns with smooth wall for MEMS and X-ray devices. , 2017, , .		0
22	Development of Multi-colored Neutron Talbot-Lau Interferometer with Absorption Grating Fabricated by Imprinting Method of Metallic Glass. Journal of the Physical Society of Japan, 2017, 86, 044001.	1.6	13
23	Edge-illumination x-ray phase contrast imaging with Pt-based metallic glass masks. Review of Scientific Instruments, 2017, 88, 063705.	1.3	5
24	Experimental Evaluation of Neutron Absorption Grating Fabricated by Oblique Evaporation of Gadolinium for Phase Imaging. Physics Procedia, 2017, 88, 217-223.	1.2	11
25	Sub-10-ms X-ray tomography using a grating interferometer. Applied Physics Express, 2017, 10, 052501.	2.4	31
26	Millisecond-order X-ray phase tomography with compressed sensing. Japanese Journal of Applied Physics, 2017, 56, 112503.	1.5	26
27	X-ray phase imaging using a Gd-based absorption grating fabricated by imprinting technique. Japanese Journal of Applied Physics, 2016, 55, 048003.	1.5	8
28	High aspect ratio grating by isochronal imprinting of less viscous workable Gd-based metallic glass for neutron phase imaging. Intermetallics, 2016, 78, 55-63.	3.9	12
29	Development of grating-based x-ray phase tomography under the ERATO project. Proceedings of SPIE, 2016, , .	0.8	1
30	Osteocyte-directed bone demineralization along canaliculi. Bone, 2016, 84, 279-288.	2.9	78
31	Small-Angle X-ray Scattering Imaging Using Gratings. Hyomen Gijutsu/Journal of the Surface Finishing Society of Japan, 2015, 66, 603-607.	0.2	0
32	Osteogenic capillaries orchestrate growth plate-independent ossification of the malleus. Development (Cambridge), 2015, 142, 3912-20.	2.5	20
33	An improved phase shift reconstruction algorithm of fringe scanning technique for X-ray microscopy. Review of Scientific Instruments, 2015, 86, 023707.	1.3	1
34	Effects of unresolvable edges in grating-based X-ray differential phase imaging. Optics Express, 2015, 23, 9233.	3.4	49
35	Effect of beam hardening on a visibility-contrast image obtained by X-ray grating interferometry. Optics Express, 2015, 23, 23462.	3.4	44
36	X-ray phase imaging: from synchrotron to hospital. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2014, 372, 20130023.	3.4	78

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37	A metallic glass grating for X-ray grating interferometers fabricated by imprinting. Applied Physics Express, 2014, 7, 032501.	2.4	18
38	X-ray Bragg magnifier microscope as a linear shift invariant imaging system: image formation and phase retrieval. Optics Express, 2014, 22, 21508.	3.4	13
39	Grazing-incidence ultrasmall-angle X-ray scattering imaging with X-ray transmission gratings: A feasibility study. Japanese Journal of Applied Physics, 2014, 53, 05FH04.	1.5	5
40	Talbot-defocus multiscan tomography using the synchrotron X-ray microscope to study the lacuno-canalicular network in mouse bone. Biomedical Optics Express, 2013, 4, 917.	2.9	15
41	Demonstration of Stroboscopic X-ray Talbot Interferometry Using Polychromatic Synchrotron and Laboratory X-ray Sources. Applied Physics Express, 2013, 6, 096601.	2.4	14
42	Effectiveness of X-ray grating interferometry for non-destructive inspection of packaged devices. Journal of Applied Physics, 2013, 114, 134901.	2.5	20
43	High-Sensitive X-Ray Imaging Microscopes with Transmission Gratings. Review of High Pressure Science and Technology/Koatsuryoku No Kagaku To Gijutsu, 2013, 23, 227-236.	0.0	0
44	Research toward the development of compact neutron interference imaging instrument with gratings. Journal of Physics: Conference Series, 2012, 340, 012035.	0.4	2
45	Preface-International workshop on X-ray and neutron phase imaging with gratings (XNPIC). , 2012, , .		0
46	Development of the Talbot-Lau interferometry system available for clinical use. AIP Conference Proceedings, 2012, , .	0.4	4
47	X-ray phase imaging-From static observation to dynamic observation-. AIP Conference Proceedings, 2012, , .	0.4	3
48	Theoretical aspect of X-ray phase microscopy with transmission gratings. , 2012, , .		0
49	Analysis of moire fringes by Wiener filtering: An extension to the Fourier method. , 2012, , .		0
50	X-ray phase laminography with a grating interferometer using iterative reconstruction. AIP Conference Proceedings, 2012, , .	0.4	1
51	Evaluation of gratings for X-ray and neutron phase imaging techniques by using x-ray projection microscope. , 2012, , .		0
52	Constructing a multi-scan synchrotron X-ray microscope to study the function of osteocyte canaliculi in mouse bone. , 2012, , .		0
53	Quantitative visibility-contrast tomography in the X-ray Talbot interferometry. , 2012, , .		2
54	High-speed X-ray phase tomography with Talbot interferometer and fringe scanning method. AIP Conference Proceedings, 2012, , .	0.4	9

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55	X-ray Talbot-Lau interferometer for high-speed phase imaging and tomography using white synchrotron radiation. , 2012, , .		5
56	Advanced features of X-ray imaging by MIRRORCLE-CV4. , 2012, , .		0
57	Wavefront measurement for a hard-X-ray nanobeam using single-grating interferometry. Optics Express, 2012, 20, 24977.	3.4	52
58	Recent progress in four-dimensional phase tomography with grating interferometry. Proceedings of SPIE, 2012, , .	0.8	0
59	Solving Ill-Posed Linear Systems With Constraints on Statistical Moments. IEEE Signal Processing Letters, 2012, 19, 103-106.	3.6	1
60	<i>In situ</i> observation of x-ray irradiation effect by using a multiwave x-ray diffraction phenomenon. Journal of Applied Physics, 2011, 110, .	2.5	0
61	Four-dimensional X-ray phase tomography with Talbot interferometry and white synchrotron radiation: dynamic observation of a living worm. Optics Express, 2011, 19, 8423.	3.4	112
62	Iterative reconstruction in x-ray computed laminography from differential phase measurements. Optics Express, 2011, 19, 16560.	3.4	23
63	Nano-Resolution X-ray Tomography for Deciphering Wiring Diagram of Mammalian Brain. , 2011, , .		2
64	X-ray Phase Imaging and Tomography Using a Fresnel Zone Plate and a Transmission Grating. , 2011, , .		1
65	Microstructure Analysis Using Visibility Contrast in X-ray Talbot Interferometry. , 2011, , .		0
66	X-ray Phase Imaging Using Lau Effect. Applied Physics Express, 2011, 4, 066603.	2.4	61
67	Distribution of unresolvable anisotropic microstructures revealed in visibility-contrast images using x-ray Talbot interferometry. Physical Review B, 2011, 84, .	3.2	45
68	Hard-X-ray Phase-Difference Microscopy with a Low-Brilliance Laboratory X-ray Source. Applied Physics Express, 2011, 4, 062502.	2.4	29
69	Theoretical description of the intensity of crystal-truncation-rod scattering modulated by a Bragg reflection. IOP Conference Series: Materials Science and Engineering, 2011, 24, 012020.	0.6	0
70	Mesoscopic-Scale and Small Strain Field beneath SiO ₂ /Si Interface Revealed by a Multiple-Wave X-ray Diffraction Phenomenon - Depth of the Strain Field. E-Journal of Surface Science and Nanotechnology, 2011, 9, 47-50.	0.4	0
71	X-ray Phase Imaging Microscopy using a Fresnel Zone Plate and a Transmission Grating. , 2010, , .		0
72	High-Speed X-ray Phase Imaging with Grating Interferometer and White Synchrotron Light. , 2010, , .		1

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73	Hard-x-ray phase-imaging microscopy using the self-imaging phenomenon of a transmission grating. Physical Review A, 2010, 82, .	2.5	26
74	X-ray Phase Measurements with Talbot Interferometry and Its Applications. , 2010, , .		2
75	X-ray phase laminography with Talbot interferometer. Proceedings of SPIE, 2010, , .	0.8	9
76	Four-dimensional x-ray phase tomography with Talbot interferometer and white synchrotron light. Proceedings of SPIE, 2010, , .	0.8	3
77	Nano-resolution x-ray tomography for deciphering a wiring diagram of the mouse cerebral cortex. Neuroscience Research, 2010, 68, e331-e332.	1.9	0
78	On the origin of visibility contrast in x-ray Talbot interferometry. Optics Express, 2010, 18, 16890.	3.4	315
79	Grating-Based X-ray Phase Imaging Using Multiline X-ray Source. Japanese Journal of Applied Physics, 2009, 48, 076512.	1.5	55
80	Hard-X-Ray Phase-Difference Microscopy Using a Fresnel Zone Plate and a Transmission Grating. Physical Review Letters, 2009, 103, 180801.	7.8	63
81	High-speed X-ray phase imaging and X-ray phase tomography with Talbot interferometer and white synchrotron radiation. Optics Express, 2009, 17, 12540.	3.4	148
82	X-ray phase tomography with a Talbot interferometer in combination with an X-ray imaging microscope. Journal of Physics: Conference Series, 2009, 186, 012044.	0.4	6
83	Fabrication of High Aspect Ratio X-ray Grating Using X-ray Lithography. Journal of Solid Mechanics and Materials Engineering, 2009, 3, 416-423.	0.5	15
84	Quantitative Analysis of the Strain Field beneath the Si₃N₄/Si(001) Interface Formed by the Xe/NH₃ Plasma Nitridation using a Multiple-Wave X-ray Diffraction Phenomenon. Transactions of the Materials Research Society of Japan, 2009, 34, 597-599.	0.2	0
85	Fabrication of large area diffraction grating using LIGA process. Microsystem Technologies, 2008, 14, 1311-1315.	2.0	58
86	Fabrication of Multiple Slit Using Stacked-Sliced Method for Hard X-ray Talbot-Lau Interferometer. Japanese Journal of Applied Physics, 2008, 47, 7412-7414.	1.5	3
87	Sensitivity of X-ray Phase Imaging Based on Talbot Interferometry. Japanese Journal of Applied Physics, 2008, 47, 8077.	1.5	24
88	Efficiency of capturing a phase image using cone-beam x-ray Talbot interferometry. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2008, 25, 2025.	1.5	82
89	Sensitivity of x-ray phase tomography based on Talbot and Talbot-Lau interferometer. Proceedings of SPIE, 2008, , .	0.8	6
90	Fabrication of the X-Ray Mask using the Silicon Dry Etching. Journal of Advanced Mechanical Design, Systems and Manufacturing, 2008, 2, 246-251.	0.7	3

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91	X-ray Reciprocal-Lattice Space Imaging Method for Quick analysis of Buried Crystalline Nanostructure - a Diffraction Method Fixed at an Angular Position. Transactions of the Materials Research Society of Japan, 2008, 33, 625-628.	0.2	2
92	Transmission X-ray Diffraction from Bismuth Lines Embedded in Silicon. Transactions of the Materials Research Society of Japan, 2008, 33, 619-622.	0.2	0
93	X-ray Diffraction from Buried Bi atomic wire formed on Si(001) - near the Bi LIII Absorption Edge. Transactions of the Materials Research Society of Japan, 2008, 33, 623-624.	0.2	0
94	Recent Progress in Solving the Phase Problem in Surface and Interface Crystallography. Transactions of the Materials Research Society of Japan, 2008, 33, 551-556.	0.2	0
95	X-ray Phase Microtomography by Single Transmission Grating. AIP Conference Proceedings, 2007, , .	0.4	2
96	Phase Tomography Using X-ray Talbot Interferometer. AIP Conference Proceedings, 2007, , .	0.4	2
97	Three-Dimensional Observation of Polymer Blends with X-ray Phase Tomography. AIP Conference Proceedings, 2007, , .	0.4	0
98	X-Ray Phase Imaging with Single Phase Grating. Japanese Journal of Applied Physics, 2007, 46, L89-L91.	1.5	48
99	Fabrication of High Precision X-ray Mask Using Silicon Dry Etching. , 2007, , .		0
100	Oxidation process dependence of strain field under the SiO ₂ /Si(001) interface revealed by X-ray multiple-wave diffraction. Journal of Physics: Conference Series, 2007, 83, 012009.	0.4	0
101	Strain Field under the SiO ₂ /Si Interface Revealed by a Multiple-Wave X-ray Diffraction Phenomenon. Transactions of the Materials Research Society of Japan, 2007, 32, 227-229.	0.2	1
102	Phase Tomography by X-ray Talbot Interferometry for Biological Imaging. Japanese Journal of Applied Physics, 2006, 45, 5254-5262.	1.5	310
103	Fabrication of Gratings for an X-ray Talbot Interferometer. , 2006, , .		1
104	Biomedical imaging by Talbot-type x-ray phase tomography. , 2006, 6318, 259.		10
105	Surface bismuth removal after Bi nanoline encapsulation in silicon. Surface Science, 2005, 595, L311-L317.	1.9	8
106	Determination of crystal orientation by an area-detector image for surface X-ray diffraction. Journal of Applied Crystallography, 2005, 38, 319-323.	4.5	1
107	Encapsulation of atomic-scale Bi wires in epitaxial silicon without loss of structure. Physical Review B, 2005, 72, .	3.2	22
108	RECIPROCAL-LATTICE SPACE IMAGING OF X-RAY INTENSITIES DIFFRACTED FROM NANOWIRES. Materials Research Society Symposia Proceedings, 2004, 840, Q6.4.1.	0.1	4

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109	New method to characterize mesoscopic range and very small strain with using multi-wave X-ray diffraction. <i>Surface Science</i> , 2004, 550, 93-105.	1.9	14
110	A Phase Retrieval Method for Noncrystalline Layers on Crystal Surfaces. <i>Japanese Journal of Applied Physics</i> , 2003, 42, 6658-6662.	1.5	8
111	A probe-positioning method with two-dimensional calibration pattern for micro-multi-point probes. <i>Review of Scientific Instruments</i> , 2003, 74, 2722-2725.	1.3	8
112	Direct Phase Measurement of the X-Ray Specular Reflection Using Modulation under the Bragg Condition. <i>Japanese Journal of Applied Physics</i> , 2002, 41, L592-L594.	1.5	8
113	Interface reconstructed structure of Ag/Si(111) revealed by X-ray diffraction. <i>Surface Science</i> , 2001, 493, 194-199.	1.9	8
114	Structural study of Si(111) 21\AA - 21\AA -(Ag+Au) surface by X-ray diffraction. <i>Surface Science</i> , 2001, 493, 214-220.	1.9	25
115	Darwin's theory for the grazing incidence geometry. <i>Surface Science</i> , 2001, 490, 394-408.	1.9	12
116	X-ray diffraction from an atomic plane. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2000, 56, 163-167.	0.3	30
117	Effect of surface structure on crystal-truncation-rod scattering under the Bragg condition. <i>Physical Review B</i> , 2000, 62, 3630-3638.	3.2	13
118	Differential Phase X-ray Imaging Microscopy with X-ray Talbot Interferometer. <i>Applied Physics Express</i> , 0, 1, 117002.	2.4	50