

# Harutaka Mearu

## List of Publications by Year in descending order

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104  
papers

1,069  
citations

471509

17  
h-index

477307

29  
g-index

104  
all docs

104  
docs citations

104  
times ranked

1054  
citing authors

#	ARTICLE	IF	CITATIONS
1	Development of mesoporous silica-based nanoparticles with controlled release capability for cancer therapy. <i>Advanced Drug Delivery Reviews</i> , 2015, 95, 40-49.	13.7	228
2	Development of ultrasonic micro hot embossing technology. <i>Microelectronic Engineering</i> , 2007, 84, 1282-1287.	2.4	89
3	Development of precision transfer technology of atmospheric hot embossing by ultrasonic vibration. <i>Microsystem Technologies</i> , 2006, 13, 385-391.	2.0	41
4	Biodegradability of Disulfide-Organosilica Nanoparticles Evaluated by Soft X-ray Photoelectron Spectroscopy: Cancer Therapy Implications. <i>ACS Applied Nano Materials</i> , 2019, 2, 479-488.	5.0	39
5	Development of Three Dimensional LIGA Process to Fabricate Spiral Microcoil. <i>Japanese Journal of Applied Physics</i> , 2005, 44, 5749-5754.	1.5	38
6	Microfabrication by hot embossing and injection molding at LASTI. <i>Microsystem Technologies</i> , 2004, 10, 682-688.	2.0	32
7	Respiratory Monitoring by Ultrafast Humidity Sensors with Nanomaterials: A Review. <i>Sensors</i> , 2022, 22, 1251.	3.8	29
8	Fabrication of Mold Master for Spiral Microcoil Utilizing X-Ray Lithography of Synchrotron Radiation. <i>Japanese Journal of Applied Physics</i> , 2004, 43, 4036-4040.	1.5	26
9	Effect of applying ultrasonic vibration in thermal nanoimprint lithography. <i>Microsystem Technologies</i> , 2008, 14, 1325-1333.	2.0	23
10	Effect of Agitation Method on the Nanosized Degradation of Polystyrene Microplastics Dispersed in Water. <i>ACS Omega</i> , 2020, 5, 3218-3227.	3.5	23
11	Ultrasonic Nanoimprint on Poly(ethylene terephthalate) at Room Temperature. <i>Japanese Journal of Applied Physics</i> , 2008, 47, 5178-5184.	1.5	22
12	Beam line BL11 for LIGA process at the NewSUBARU. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2001, 467-468, 741-744.	1.6	21
13	Ultrasonic nanoimprint on engineering plastics. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2009, 27, 785-792.	2.1	20
14	Nonporous Inorganic Nanoparticle-Based Humidity Sensor: Evaluation of Humidity Hysteresis and Response Time. <i>Sensors</i> , 2020, 20, 3858.	3.8	20
15	Nanoimprint Lithography Combined with Ultrasonic Vibration on Polycarbonate. <i>Japanese Journal of Applied Physics</i> , 2007, 46, 6355-6362.	1.5	19
16	Scanning tunneling microscopy study of Si(111) surface morphology after removal of SiO <sub>2</sub> by synchrotron radiation illumination. <i>Applied Physics Letters</i> , 2000, 76, 1392-1394.	3.3	18
17	Fabrication of a spiral microcoil using a 3D-LIGA process. <i>Microsystem Technologies</i> , 2006, 13, 393-402.	2.0	18
18	Frequency and amplitude dependences of molding accuracy in ultrasonic nanoimprint technology. <i>Journal of Micromechanics and Microengineering</i> , 2009, 19, 125026.	2.6	18

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19	Design of solenoidal electromagnetic microactuator utilizing 3D X-ray lithography and metalization. <i>Microsystem Technologies</i> , 2007, 13, 547-550.	2.0	16
20	Inclination of mold pattern's sidewalls by combined technique with photolithography at defocus-positions and electroforming. <i>Microsystem Technologies</i> , 2010, 16, 1323-1330.	2.0	15
21	Micro lens imprinted on Pyrex glass by using amorphous Ni-P alloy mold. <i>Microelectronic Engineering</i> , 2008, 85, 873-876.	2.4	14
22	Performance of SU-8 Membrane Suitable for Deep X-Ray Grayscale Lithography. <i>Micromachines</i> , 2015, 6, 252-265.	2.9	14
23	3D replication using PDMS mold for microcoil. <i>Microelectronic Engineering</i> , 2009, 86, 920-924.	2.4	13
24	Quasi-3D microstructure fabrication technique utilizing hard X-ray lithography of synchrotron radiation. <i>Microsystem Technologies</i> , 2002, 9, 36-40.	2.0	10
25	Thermal roller imprint on surface of Teflon perfluoroalkoxy inlet tube. <i>Journal of Vacuum Science &amp; Technology B</i> , 2009, 27, 2814.	1.3	10
26	Development of Ni-P-Plated Inconel Alloy Mold for Imprinting on Pyrex Glass. <i>Japanese Journal of Applied Physics</i> , 2009, 48, 06FH06.	1.5	10
27	Formation of metal nanostructures by high-temperature imprinting. <i>Microsystem Technologies</i> , 2014, 20, 1103-1109.	2.0	10
28	Fabrication of a Si stencil mask for the X-ray lithography using a dry etching technique. <i>Journal of Physics: Conference Series</i> , 2006, 34, 859-864.	0.4	9
29	Glass nanoimprint using amorphous Ni-P mold etched by focused-ion beam. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2007, 25, 1025-1028.	2.1	9
30	Thermal imprinting on quartz fiber using glasslike carbon mold. <i>Journal of Vacuum Science &amp; Technology B</i> , 2009, 27, 2820.	1.3	9
31	Fabrication of glass-like carbon molds to imprint on glass materials by MEMS processing technologies. <i>Microsystem Technologies</i> , 2013, 19, 315-323.	2.0	9
32	Scanning tunneling microscopy study of surface morphology of Si(111) after synchrotron radiation stimulated desorption of SiO <sub>2</sub> . <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2000, 18, 1153-1157.	2.1	8
33	Precise Micro Pattern Replication by Hot Embossing. <i>JSME International Journal Series A-Solid Mechanics and Material Engineering</i> , 2006, 49, 69-73.	0.4	8
34	Fabrication of Spiral Micro-Coil Utilizing LIGA Process. <i>JSME International Journal Series A-Solid Mechanics and Material Engineering</i> , 2006, 49, 74-78.	0.4	8
35	Guide structure with pole arrays imprinted on nylon fiber. <i>Microelectronic Engineering</i> , 2010, 87, 922-926.	2.4	8
36	Imprinting of guide structure to weave nylon fibers. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2010, 28, 706-712.	2.1	8

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37	Capillary-condensed water in nonporous nanoparticle films evaluated by impedance analysis for nanoparticle devices. <i>Nanotechnology</i> , 2020, 31, 455701.	2.6	8
38	Effects of Synchrotron Radiation Spectrum Energy on Polymethyl Methacrylate Photosensitivity to Deep X-ray Lithography. <i>Japanese Journal of Applied Physics</i> , 2003, 42, 3807-3810.	1.5	7
39	Fabrication of a needle array using a Si gray mask for x-ray lithography. <i>Journal of Vacuum Science &amp; Technology B</i> , 2007, 25, 2196.	1.3	7
40	3D UV-microreplication using cylindrical PDMS mold. <i>Microsystem Technologies</i> , 2010, 16, 1399-1411.	2.0	7
41	Demonstration of fabricating a needle array by the combination of x-ray grayscale mask with the lithografie, galvanofomung, abformung process. <i>Journal of Micro/ Nanolithography, MEMS, and MOEMS</i> , 2009, 8, 033010.	0.9	6
42	Ultrasonic Nanoimprinting in Organic Spin-on-Glass-Coated Si Substrates. <i>Japanese Journal of Applied Physics</i> , 2010, 49, 06GL09.	1.5	6
43	Development of reel-to-reel process system for roller-imprint on plastic fibers. <i>Microelectronic Engineering</i> , 2011, 88, 2059-2062.	2.4	6
44	Reel-to-reel imprint system to form weaving guides on fibers. <i>Microelectronic Engineering</i> , 2012, 98, 171-175.	2.4	6
45	High-speed imprinting on plastic optical fibers using cylindrical mold with hybrid microstructures. <i>Microelectronic Engineering</i> , 2013, 110, 156-162.	2.4	6
46	Thermal bonding of polyimide to form sealed microchannels. <i>Japanese Journal of Applied Physics</i> , 2017, 56, 06GM04.	1.5	6
47	An approach to three-dimensional microstructure fabrication utilizing hard x-ray lithography of synchrotron radiation. <i>Review of Scientific Instruments</i> , 2002, 73, 1376-1378.	1.3	5
48	Fabrication of X-ray masks and applications for optical switch molding. <i>Sensors and Actuators A: Physical</i> , 2003, 108, 224-229.	4.1	5
49	Imprinting a needle array on a polycarbonate substrate. <i>International Journal of Precision Engineering and Manufacturing</i> , 2009, 10, 79-83.	2.2	5
50	Preliminary comparison of respiratory signals using acceleration on neck and humidity in exhaled air. <i>Microsystem Technologies</i> , 2021, 27, 1-9.	2.0	5
51	Monodispersed sodium hyaluronate microcapsules for transdermal drug delivery systems. <i>Materials Advances</i> , 0, , .	5.4	5
52	A Si stencil mask for deep X-ray lithography fabricated by MEMS technology. <i>Microsystem Technologies</i> , 2008, 14, 1335-1342.	2.0	4
53	Fabrication and evaluation of a grayscale mask for x-ray lithography using MEMS technology. <i>Journal of Micro/ Nanolithography, MEMS, and MOEMS</i> , 2008, 7, 013009.	0.9	4
54	Comparative evaluation of detachable mold fixing methods aimed at low energy loss for ultrasonic nanoimprint lithography. <i>Microsystem Technologies</i> , 2017, 23, 2707-2717.	2.0	4

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55	Thermal and ultrasonic bonding between planar polyethylene terephthalate, acrylonitrile butadiene styrene, and polycarbonate substrates. <i>International Journal of Adhesion and Adhesives</i> , 2018, 84, 394-405.	2.9	4
56	Design and performance of a multilayered mirror monochromator in the low-energy region of the VUV. <i>Journal of Synchrotron Radiation</i> , 1998, 5, 714-715.	2.4	3
57	Construction of the multilayered-mirror monochromator beam line for the study of synchrotron radiation stimulated process. <i>Review of Scientific Instruments</i> , 1999, 70, 2601-2605.	1.3	3
58	Soft patterning on cylindrical surface of plastic optical fiber. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2011, 29, .	1.2	3
59	A Sliding-press-type Reel-to-reel Thermal Imprint System for Fiber Substrates. <i>IEEJ Transactions on Sensors and Micromachines</i> , 2011, 131, 240-245.	0.1	3
60	Continuous Forming of Weaving Guides Using a Reel-to-reel Thermal Roller Imprint. <i>IEEJ Transactions on Sensors and Micromachines</i> , 2012, 132, 37-41.	0.1	3
61	Optimization of Au mask fabrication processes for LIGA applications. , 2002, , .		2
62	Resist-less patterning on SiO <sub>2</sub> by combination of X-ray exposure and vapor HF etching. <i>Microsystem Technologies</i> , 2010, 16, 1339-1346.	2.0	2
63	Effect of Applying Ultrasonic Vibration in Hot Embossing and Nanoimprint. , 0, , .		2
64	Effect of Dropping Hydrofluoroether in Thermal Nanoimprint on Polycarbonate. <i>Japanese Journal of Applied Physics</i> , 2011, 50, 06GK05.	1.5	2
65	Patterning of Spiral Structure on Optical Fiber by Focused-Ion-Beam Etching. <i>Japanese Journal of Applied Physics</i> , 2012, 51, 06FB01.	1.5	2
66	Uniform Thermal Nanoimprinting at Low Pressure by Improved Heat Transfer Using Hydrofluoroethers. <i>Japanese Journal of Applied Physics</i> , 2013, 52, 06GJ02.	1.5	2
67	Relationship between aspect ratio and narrowing of reflowed photoresist structures. <i>Japanese Journal of Applied Physics</i> , 2015, 54, 06FM01.	1.5	2
68	Influence of residual layer on cross-sectional shape of thermal-reflowed photoresist structures. <i>Microsystem Technologies</i> , 2016, 22, 329-336.	2.0	2
69	Development of a 3-Dimensional LIGA Process and Application to Fabricate a Spiral Microcoil. <i>IEEJ Transactions on Electronics, Information and Systems</i> , 2007, 127, 160-166.	0.2	2
70	Large Area Microfabrication System using Synchrotron Radiation. <i>The Proceedings of the Machine Design and Tribology Division Meeting in JSME</i> , 2004, 2004.4, 73-74.	0.0	2
71	Quantum yield and carbon contamination in thin-film deposition reaction by core-electron excitations. <i>Applied Organometallic Chemistry</i> , 1999, 13, 195-200.	3.5	1
72	Recent development of micropore optics using MEMS technologies. , 2006, , .		1

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73	Ultrasonic nanoimprint on engineering plastics at room temperature. , 2007, , .		1
74	Three-dimensional X-ray lithography using a silicon mask with inclined absorbers. , 2007, , .		1
75	A novel fabrication method of needle array combined X-ray gray mask with LIGA process. , 2007, , .		1
76	Development of a 3-dimensional LIGA process and application to fabricate a spiral microcoil. Electrical Engineering in Japan (English Translation of Denki Gakkai Ronbunshi), 2009, 166, 43-51.	0.4	1
77	Rapid patterning of spin-on-glass using ultrasonic nanoimprint. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2010, 28, C6M114-C6M121.	1.2	1
78	Fast and continuous patterning on the surface of plastic fiber by using thermal roller imprint. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2012, 30, 06FB01.	1.2	1
79	Control of inclination angle of glass-like carbon mold by defocus UV exposure on Si-containing photoresist. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2012, 30, 06FB12.	1.2	1
80	Immersion nanoimprint lithography using perfluoroalkyl liquid. Microelectronic Engineering, 2012, 97, 43-47.	2.4	1
81	Immersion effect of fluoride liquid into cavities of negative mold in thermal imprint. Microsystem Technologies, 2013, 19, 599-608.	2.0	1
82	Effect of buffer materials on thermal imprint on plastic optical fiber. Microsystem Technologies, 2013, 19, 325-333.	2.0	1
83	Removal of drawing traces of grayscale laser lithography by reflow process. Microelectronic Engineering, 2015, 143, 15-20.	2.4	1
84	Detachable expansion fit ultrasonic head with multiple dovetail structures. Microsystem Technologies, 2021, 27, 2189-2202.	2.0	1
85	Magnetic Nanoparticles and Alternating Magnetic Field for Cancer Therapy. Fundamental Biomedical Technologies, 2021, , 165-179.	0.2	1
86	Effect of Dropping Hydrofluoroether in Thermal Nanoimprint on Polycarbonate. Japanese Journal of Applied Physics, 2011, 50, 06GK05.	1.5	1
87	Analysis of single-side shearing by using punch with high slenderness ratio. International Journal of Machine Tools and Manufacture, 1997, 37, 1109-1122.	13.4	0
88	Energy and polarization control in synchrotron-radiation-stimulated nanoprocess. , 1999, 3773, 340.		0
89	Nanostructure formation on Si (111) surface assisted by synchrotron radiation illumination. Journal of Electron Spectroscopy and Related Phenomena, 2001, 119, 241-246.	1.7	0
90	Design and construction of UVSOR-BL4A2 beam line for nano-structure processing. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2001, 467-468, 1279-1281.	1.6	0

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91	Precise Micro Pattern Replication Using Hot Embossing. The Proceedings of the Machine Design and Tribology Division Meeting in JSME, 2004, 2004.4, 69-70.	0.0	0
92	Fabrication of Three Dimensional X-ray Mask using MEMS Technology. , 2007, , .		0
93	Application of Ni-P Alloys to A Mold Material for Thermal Imprinting on Pyrex Glass. , 2015, , .		0
94	Surface patterning of protein matrix basement by thermal imprinting. Microsystem Technologies, 2017, 23, 1309-1318.	2.0	0
95	424 3-dimentional microstructures produced by the combination of high aspect ratio processing using synchrotron radiation and anisotropic etching. The Proceedings of the Materials and Processing Conference, 2001, 2001.9, 369-370.	0.0	0
96	425 Fabrication of Microstructures with tilted sidewall using rotation of an X-ray mask. The Proceedings of the Materials and Processing Conference, 2001, 2001.9, 371-372.	0.0	0
97	430 Examination of the 3-D micro processing by X-ray mask with optical intensity variation. The Proceedings of the Materials and Processing Conference, 2001, 2001.9, 381-382.	0.0	0
98	Fabrication of 3D micro coil using warm injection molding. The Proceedings of the Materials and Processing Conference, 2003, 2003.11, 287-288.	0.0	0
99	Development of worm injection molding for LIGA process. The Proceedings of the Machine Design and Tribology Division Meeting in JSME, 2004, 2004.4, 67-68.	0.0	0
100	Development of Ultrasonic Vibration Hot Embossing Replication Technique. The Proceedings of the Machine Design and Tribology Division Meeting in JSME, 2004, 2004.4, 71-72.	0.0	0
101	Fabrication of X-Ray Lithography Masks Utilizing MEMS Technology. IEEJ Transactions on Electronics, Information and Systems, 2007, 127, 167-173.	0.2	0
102	Patterning of Spiral Structure on Optical Fiber by Focused-Ion-Beam Etching. Japanese Journal of Applied Physics, 2012, 51, 06FB01.	1.5	0
103	High-speed Continuous Micro Pattern Fabrication on Fibers for Large-area Devices. IEEJ Transactions on Sensors and Micromachines, 2013, 133, 112-117.	0.1	0
104	Application and Processing Method of Amorphous Materials to Molds for Thermal Imprinting. Journal of the Japan Society for Precision Engineering, 2013, 79, 292-296.	0.1	0