Shoji Maruo

List of Publications by Year
in descending order

97 papers	4,194 citations	279798 23 h-index	149698 56 g-index
98 all docs	98 docs citations	98 times ranked	3200 citing authors

#	Article	IF	Citations
1	Three-dimensional microfabrication with two-photon-absorbed photopolymerization. Optics Letters, 1997, 22, 132.	3.3	1,735
2	Recent progress in multiphoton microfabrication. Laser and Photonics Reviews, 2008, 2, 100-111.	8.7	353
3	Submicron manipulation tools driven by light in a liquid. Applied Physics Letters, 2003, 82, 133-135.	3.3	215
4	Optically driven micropump produced by three-dimensional two-photon microfabrication. Applied Physics Letters, 2006, 89, 144101.	3.3	214
5	Two-photon-absorbed near-infrared photopolymerization for three-dimensional microfabrication. Journal of Microelectromechanical Systems, 1998, 7, 411-415.	2.5	182
6	Three-dimensional microfabrication by use of single-photon-absorbed polymerization. Applied Physics Letters, 2000, 76, 2656-2658.	3.3	143
7	Force-controllable, optically driven micromachines fabricated by single-step two-photon microstereolithography. Journal of Microelectromechanical Systems, 2003, 12, 533-539.	2.5	140
8	Submicron stereolithography for the production of freely movable mechanisms by using single-photon polymerization. Sensors and Actuators A: Physical, 2002, 100, 70-76.	4.1	121
9	Optically driven micropump with a twin spiral microrotor. Optics Express, 2009, 17, 18525.	3.4	109
10	Femtosecond laser direct writing of metallic microstructures by photoreduction of silver nitrate in a polymer matrix. Optics Express, 2008, 16, 1174.	3.4	108
11	Optically driven viscous micropump using a rotating microdisk. Applied Physics Letters, 2007, 91, .	3.3	85
12	Preparation of hair beads and hair follicle germs for regenerative medicine. Biomaterials, 2019, 212, 55-63.	11.4	54
13	Spontaneous hair follicle germ (HFG) formation inÂvitro, enabling the large-scale production of HFGs for regenerative medicine. Biomaterials, 2018, 154, 291-300.	11.4	52
14	Single-anchor support and supercritical CO_2 drying enable high-precision microfabrication of three-dimensional structures. Optics Express, 2009, 17, 20945.	3.4	51
15	Formation of three-dimensional carbon microstructures via two-photon microfabrication and microtransfer molding. Optical Materials Express, 2013, 3, 875.	3.0	43
16	Evanescent-wave holography by use of surface-plasmon resonance. Applied Optics, 1997, 36, 2343.	2.1	39
17	Rapid three-dimensional structuring of transparent SiO2 glass using interparticle photo-cross-linkable suspensions. Communications Materials, 2020, 1, .	6.9	32
18	Development of a soft actuator using a photocurable ionic gel. Journal of Micromechanics and Microengineering, 2009, 19, 035005.	2.6	30

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19	Development of Optically-Driven Metallic Microrotors Using Two-Photon Microfabrication. Journal of Laser Micro Nanoengineering, 2013, 8, 6-10.	0.1	27
20	Replication of Three-Dimensional Rotary Micromechanism by Membrane-Assisted Transfer Molding. Japanese Journal of Applied Physics, 2009, 48, 06FH05.	1.5	25
21	Three-dimensional ceramic molding based on microstereolithography for the production of piezoelectric energy harvesters. Sensors and Actuators A: Physical, 2013, 200, 31-36.	4.1	25
22	Multi-material microstereolithography using a palette with multicolor photocurable resins. Optical Materials Express, 2020, 10, 2522.	3.0	25
23	Femtosecond laser direct writing in transparent materials based on nonlinear absorption. MRS Bulletin, 2016, 41, 975-983.	3.5	23
24	Tailored cell sheet engineering using microstereolithography and electrochemical cell transfer. Scientific Reports, 2019, 9, 10415.	3.3	22
25	<title>Fabrication of freely movable microstructures by using two-photon three-dimensional microfabrication</title>. , 2000, 3937, 106.		21
26	Magnetically Driven Micromachines Created by Two-Photon Microfabrication and Selective Electroless Magnetite Plating for Lab-on-a-Chip Applications. Micromachines, 2017, 8, 35.	2.9	20
27	Fabrication of Three-Dimensional Metalized Movable Microstructures by the Combination of Two-Photon Microfabrication and Electroless Plating. Japanese Journal of Applied Physics, 2012, 51, 06FL17.	1.5	19
28	Fabrication of Three-Dimensional Transparent SiO2Microstructures by Microstereolithographic Molding. Japanese Journal of Applied Physics, 2009, 48, 06FK01.	1.5	16
29	Multi-scale laser direct writing of conductive metal microstructures using a 405-nm blue laser. Optics Express, 2020, 28, 8363.	3.4	15
30	Liquidâ€State Optoelectronics Using Liquid Metal. Advanced Electronic Materials, 2020, 6, 1901135.	5.1	14
31	Micromolding of Three-Dimensional Metal Structures by Electroless Plating of Photopolymerized Resin. Japanese Journal of Applied Physics, 2007, 46, 2761-2763.	1.5	13
32	3D-Printed Micro-Tweezers with a Compliant Mechanism Designed Using Topology Optimization. Micromachines, 2021, 12, 579.	2.9	13
33	Simple autofocusing method by image processing using transmission images for large-scale two-photon lithography. Optics Express, 2020, 28, 12342.	3.4	13
34	3D Helical Micromixer Fabricated by Micro Lostâ€Wax Casting. Advanced Materials Technologies, 2020, 5, 1900794.	5.8	12
35	Additive Manufacturing of Micromanipulator Mounted on a Glass Capillary for Biological Applications. Micromachines, 2020, 11, 174.	2.9	12
36	3D structuring of dense alumina ceramics using fiber-based stereolithography with interparticle photo-cross-linkable slurry. Advanced Powder Technology, 2021, 32, 72-79.	4.1	12

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37	Optically Driven Micromanipulators with Rotating Arms. Journal of Robotics and Mechatronics, 2007, 19, 565-568.	1.0	12
38	Ferrite and Copper Electroless Plating of Photopolymerized Resin for Micromolding of Three-Dimensional Structures. Japanese Journal of Applied Physics, 2008, 47, 3232-3235.	1.5	11
39	Multi-scale, multi-depth lithography using optical fibers for microfluidic applications. Microfluidics and Nanofluidics, 2018, 22, 1.	2.2	11
40	Fabrication of Three-Dimensional Metalized Movable Microstructures by the Combination of Two-Photon Microfabrication and Electroless Plating. Japanese Journal of Applied Physics, 2012, 51, 06FL17.	1.5	11
41	Micromolding for three-dimensional metal microstructures using stereolithography of photopolymerized resin. Microelectronic Engineering, 2009, 86, 1169-1172.	2.4	10
42	Electroless and Electrolytic Plating of Ni, Cu, and CoxFe2-xO4 for the Application of Three-Dimensional Micro-Molding. Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi], 2008, 21, 53-58.	0.3	8
43	Electroless and Electrolytic Plating of Photopolymerized Resin for Use in the Micro-Molding of Three-Dimensional Nickel Structures. Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi], 2007, 20, 285-290.	0.3	7
44	Three-Dimensional Molding Based on Microstereolithography Using Beta-Tricalcium Phosphate Slurry for the Production of Bioceramic Scaffolds. Japanese Journal of Applied Physics, 2011, 50, 06GL15.	1.5	7
45	Development of Optically Controlled Micromanipulation Systems by using Two-photon Microstereolithography. IEEJ Transactions on Sensors and Micromachines, 2005, 125, 473-478.	0.1	7
46	Multi-scale micro-stereolithography using optical fibers with a photocurable ceramic slurry. Optical Materials Express, 2021, 11, 105.	3.0	6
47	Development of a High-Density Microplasma Emission Source for a Micro Total Analysis System. Analytical Sciences, 2017, 33, 505-509.	1.6	5
48	Development of Optically Driven Microgears by Using Two-photon Microstereolithography. IEEJ Transactions on Sensors and Micromachines, 2006, 126, 216-221.	0.1	5
49	From CAD models to toy brick sculptures: A 3D block printer. , 2016, , .		4
50	3D printing enabled by light and enabling the manipulation of light: feature issue introduction. Optical Materials Express, 2020, 10, 3414.	3.0	4
51	Three-Dimensional Molding Based on Microstereolithography Using Beta-Tricalcium Phosphate Slurry for the Production of Bioceramic Scaffolds. Japanese Journal of Applied Physics, 2011, 50, 06GL15.	1.5	4
52	Recent Progress in Three-Dimensional Microstereolithography.. The Review of Laser Engineering, 2003, 31, 122-128.	0.0	3
53	Light-drive biomedical micro-tools and biochemical IC chips fabricated by 3D micro/nano stereolithography. , 2004, , .		3
54	<title>Laser-driven multi-degrees-of-freedom nanomanipulators produced by two-photon microstereolithography</title>. , 2004, , .		3

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55	Laser-driven viscous micropump using a spining rotor. , 2007, , .		3
56	3D Shape Reconstruction of 3D Printed Transparent Microscopic Objects from Multiple Photographic Images Using Ultraviolet Illumination. Micromachines, 2018, 9, 261.	2.9	3
57	Stereolithography and Two-Photon Polymerization. , 2021, , 1-25.		3
58	Direct Nanomanipulation Tools for Biological Samples. , 2002, , 937-939.		3
59	Biochemical IC Chips Fabricated by Hybrid Microstereolithography. Materials Research Society Symposia Proceedings, 2002, 758, 561.	0.1	2
60	Three-dimensional Microstructuring of PDMS by Two-photon Microstereolithography. , 2006, , .		2
61	Manipulation of Microobjects by Optical Tweezers. , 2007, , 275-314.		2
62	Evanescent-Wave-Driven Microrotors Produced by Two-Photon Microfabrication. Japanese Journal of Applied Physics, 2011, 50, 06GM16.	1.5	2
63	Fabrication of Functional Ceramic Devices Produced by Three-Dimensional Molding Using Microstereolithography. , 2018, , 759-763.		2
64	Optically Driven Microfluidic Devices Produced by Multiphoton Microfabrication. , 2012, , 307-331.		2
65	Effects of suspension processing conditions on the multi-scale structural changes of photocured SiO_2 bodies during sintering process: An operando observation using optical coherence tomography. Advanced Powder Technology, 2022, 33, 103533.	4.1	2
66	<title>Microstereolithography and its application to biochemical IC chip</title>. , 2001, 4274, 360.		1
67	Two-photon microfabrication with a supercritical CO_2 drying process toward replication of three-dimensional microstructures. , 2007, , .		1
68	Autonomous beating and fluid pumping gel by cardiomycytes drug stimulation. , 2009, , .		1
69	Demonstration of muscle-powered autonomous micro mobile gel. , 2010, , .		1
70	Polymeric micromachines driven by laser-induced negative dielectrophoresis. , 2011, , .		1
71	Three-dimensional vibration energy harvester using a spiral piezoelectric element. , 2013, , .		1
72	Remotely Driven Micromachines Produced by Two-Photon Microfabrication. , 2016, , 293-309.		1

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73	A 3D block printer using toy bricks for various models. , 2017, , .		1
74	Remotely driven micromachines produced by two-photon microfabrication. , 2020, , 475-492.		1
75	Three-dimensional molding processes based on one- and two-photon microfabrication. , 2012, , .		1
76	Advanced Micro Stereolithography with Multi UV polymers. IEEJ Transactions on Sensors and Micromachines, 2000, 120, 370-374.	0.1	1
77	Evanescent-Wave-Driven Microrotors Produced by Two-Photon Microfabrication. Japanese Journal of Applied Physics, 2011, 50, 06GM16.	1.5	1
78	Optically Driven Micromanipulation Tools Fabricated by Two-photon Microstereolithography. Materials Research Society Symposia Proceedings, 2002, 739, 941.	0.1	0
79	Micro and Nanostereolithography for Production of Lab-on-a-Chip Devices. , 2007, , .		0
80	Development of microactuators using photopatternable ionic gel. , 2008, , .		0
81	Femtosecond laser stereolithography and replication technique for MEMS application. , 2009, , .		0
82	A viscous micropump using a spinning microrotor driven by a Laguerre-Gaussian beam. , 2009, , .		0
83	Three-dimensional manipulation of a silver nanowire using optical vortex for nanobiotechnology. , 2013, , .		0
84	Functional lab-on-a-chip devices produced by two-photon microfabrication. , 2013, , .		0
85	Development of Functional Devices Using Three-dimensional Micro/nano Stereolithography. Journal of Smart Processing, 2014, 3, 175-181.	0.1	0
86	Three-dimensional ceramic molding process based on microstereolithography for the production of piezoelectric energy harvesters. Proceedings of SPIE, 2014, , .	0.8	0
87	Development of Micromanipulators using Stereolithography. Journal of the Robotics Society of Japan, 2021, 39, 306-309.	0.1	0
88	Progress in 3D-Printed Micromachines. Journal of the Japan Society for Precision Engineering, 2021, 87, 734-739.	0.1	0
89	Optically Driven Micropump. Kobunshi, 2007, 56, 511-511.	0.0	0
90	Development of All Optically Controlled Biochips. Journal of the Robotics Society of Japan, 2007, 25, 212-213.	0.1	0

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91	Advanced Micro/Nano Stereolithography. Yosetsu Gakkai Shi/Journal of the Japan Welding Society, 2014, 83, 254-257.	0.1	0
92	Optically driven microfluidic devices produced by two-photon microfabrication. , 2014, , .		0
93	Stereolithography and Two-Photon Polymerization. , 2021, , 1375-1399.		0
94	3D printing enabled by light and enabling the manipulation of light: feature issue introduction. Optical Materials Express, 2020, 10, 3414.	3.0	0
95	Simple autofocusing method by image processing for two-photon lithography. , 2020, , .		0
96	Additive Manufacturing for 3D Electronic Applications. Journal of Japan Institute of Electronics Packaging, 2020, 23, 452-458.	0.1	0
97	Micro Stereolithography and Molding Techniques for the Production of 3D Microstructures. Vacuum and Surface Science, 2020, 63, 598-603.	0.1	0