

Masaru Nakagawa

List of Publications by Year in descending order

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80
papers

3,122
citations

331670

21
h-index

155660

55
g-index

80
all docs

80
docs citations

80
times ranked

3684
citing authors

#	ARTICLE	IF	CITATIONS
1	Nondestructive x-ray reflectivity analysis of Al distributions of ultraviolet-cured spin-coated resist films hybridized with trimethylaluminum. <i>Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics</i> , 2022, 40, 032601.	1.2	1
2	Suppression of resist pattern collapse by crosslinker in ultraviolet nanoimprinting involving sequential infiltration synthesis with trimethylaluminum. <i>Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics</i> , 2021, 39, 032603.	1.2	2
3	Plastic deformation of synthetic quartz nanopillars by nanoindentation for multi-scale and multi-level security artefact metrics. <i>Scientific Reports</i> , 2021, 11, 16550.	3.3	2
4	Selective dry etching of UV-nanoimprinted resin passivation masks for area selective atomic layer deposition of aluminum oxide. <i>Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics</i> , 2021, 39, 052804.	1.2	2
5	Organic-Inorganic Hybrid Replica Molds with High Mechanical Strength for Step-and-Repeat Ultraviolet Nanoimprinting. <i>Bulletin of the Chemical Society of Japan</i> , 2020, 93, 862-869.	3.2	8
6	Depth profiles of aluminum component in sequential infiltration synthesis-treated electron beam resist films analyzed by time-of-flight secondary ion mass spectrometry. <i>Japanese Journal of Applied Physics</i> , 2020, 59, SIIC03.	1.5	6
7	Ultimate Nano Molding and Transferring by Novel Nanoimprint Technique of Print-and-Imprint Method. <i>Hyomen Gijutsu/Journal of the Surface Finishing Society of Japan</i> , 2020, 71, 468-471.	0.2	0
8	Print-and-Imprint Method: Novel Nanoimprint Technology Based on Laser-Drilled Screen Printing. <i>Vacuum and Surface Science</i> , 2020, 63, 592-597.	0.1	0
9	Sequential infiltration synthesis- and solvent annealing-induced morphological changes in positive-tone e-beam resist patterns evaluated by atomic force microscopy. <i>Japanese Journal of Applied Physics</i> , 2019, 58, SDDJ04.	1.5	6
10	Photoinduced Reorientation in Thin Films of a Nematic Liquid Crystalline Polymer Anchored to Interfaces and Enhancement Using Small Liquid Crystalline Molecules. <i>Langmuir</i> , 2019, 35, 14222-14229.	3.5	1
11	Selection of Polymerizable Functional Group of Adhesive Monolayer to Control Monomer Viscosity under Confinement in Silica Nano-gaps. <i>Chemistry Letters</i> , 2019, 48, 943-946.	1.3	8
12	Surface forces between hydrophilic silica surfaces in a moisture-sensitive oleophilic diacrylate monomer liquid. <i>AIP Advances</i> , 2018, 8, 025122.	1.3	2
13	Development of UV-Curable Resins Suitable for Reverse-Tone Lithography for Au Metamaterials Using a Print-and-Imprint Method. <i>Bulletin of the Chemical Society of Japan</i> , 2018, 91, 178-186.	3.2	17
14	Pulsed Laser Drilling of Engineering Plastic Films to Fabricate Through-Hole Membranes for Print-and-Imprint Method. <i>Transactions of the Materials Research Society of Japan</i> , 2018, 43, 289-292.	0.2	6
15	Elemental depth profiles and plasma etching rates of positive-tone electron beam resists after sequential infiltration synthesis of alumina. <i>Japanese Journal of Applied Physics</i> , 2018, 57, 06HG01.	1.5	13
16	Visualization of organic/inorganic hybridization of UV-cured films with trimethylaluminum by scanning transmission electron microscopy and energy dispersive x-ray spectroscopy. <i>Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics</i> , 2018, 36, 06JF02.	1.2	6
17	Selection of Diacrylate Monomers for Sub-15 nm Ultraviolet Nanoimprinting by Resonance Shear Measurement. <i>Langmuir</i> , 2018, 34, 9366-9375.	3.5	13
18	Nanometer-Resolved Fluidity of an Oleophilic Monomer between Silica Surfaces Modified with Fluorinated Monolayers for Nanoimprinting. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 6591-6598.	8.0	15

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19	Silica imprint templates with concave patterns from single-digit nanometers fabricated by electron beam lithography involving argon ion beam milling. Japanese Journal of Applied Physics, 2017, 56, 06GL01.	1.5	10
20	Gold microelectrodes fabricated by a print-and-imprint method using laser-drilled polyimide through-hole masks. Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics, 2017, 35, .	1.2	10
21	Unimodal Nematic Liquid Crystalline Random Copolymers Designed for Accepting Chiral Dopants. Bulletin of the Chemical Society of Japan, 2017, 90, 216-222.	3.2	2
22	Durability to oxygen reactive ion etching enhanced by addition of synthesized bis(trimethylsilyl)phenyl-containing (meth)acrylates in ultraviolet nanoimprint lithography. Japanese Journal of Applied Physics, 2016, 55, 06GM02.	1.5	3
23	Anisotropic Oxygen Reactive Ion Etching for Removing Residual Layers from 45 nm-width Imprint Patterns. Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi], 2016, 29, 201-208.	0.3	13
24	Viscosity range of UV-curable resins usable in print and imprint method for preparing sub-100-nm-wide resin patterns. Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics, 2016, 34, .	1.2	11
25	Demolding in Ultraviolet Nanoimprinting Assisted by a Nanoscale Lubricating Fluid Layer of Condensed Alternative Chlorofluorocarbon. Bulletin of the Chemical Society of Japan, 2016, 89, 786-793.	3.2	18
26	Size-Dependent Filling Behavior of UV-Curable Di(meth)acrylate Resins into Carbon-Coated Anodic Aluminum Oxide Pores of around 20 nm. ACS Applied Materials & Interfaces, 2016, 8, 30628-30634.	8.0	11
27	Discharge of viscous UV-curable resin droplets by screen printing for UV nanoimprint lithography. Japanese Journal of Applied Physics, 2016, 55, 06GM01.	1.5	12
28	Innovative UV nanoimprint lithography using a condensable alternative chlorofluorocarbon atmosphere. Microelectronic Engineering, 2015, 133, 134-155.	2.4	45
29	Selection of Di(meth)acrylate Monomers for Low Pollution of Fluorinated Mold Surfaces in Ultraviolet Nanoimprint Lithography. Langmuir, 2015, 31, 4188-4195.	3.5	21
30	Formation of 0.3-nm-high stepped polymer surface by thermal nanoimprinting. Applied Physics Express, 2014, 7, 055202.	2.4	15
31	Directed self-assembly of nematic liquid crystalline polymers on a rubbed polyimide alignment layer. Japanese Journal of Applied Physics, 2014, 53, 06JC04.	1.5	5
32	Surface-Assisted Unidirectional Orientation of ZnO Nanorods Hybridized with Nematic Liquid Crystals. ACS Applied Materials & Interfaces, 2014, 6, 811-818.	8.0	14
33	Investigation of Fluorinated (Meth)Acrylate Monomers and Macromonomers Suitable for a Hydroxy-Containing Acrylate Monomer in UV Nanoimprinting. Langmuir, 2014, 30, 7127-7133.	3.5	26
34	Breakthrough Achievement In Nanoimprint Lithography Using PFP Condensable Gas. Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi], 2014, 27, 61-72.	0.3	5
35	Preparation of UV-cured organic-inorganic hybrid materials with low refractive index for multilayer film applications. Optical Materials Express, 2013, 3, 1351.	3.0	5
36	Fabrication of Gold Split-ring Resonator Arrays by Surface-assisted Ultraviolet Nanoimprint Lithography Using Hydroxy-terminated Alkanethiol Monolayers. Chemistry Letters, 2013, 42, 1475-1477.	1.3	14

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37	Super-resolution fluorescence imaging of nanoimprinted polymer patterns by selective fluorophore adsorption combined with redox switching. <i>AIP Advances</i> , 2013, 3, 102128.	1.3	9
38	Innovative Nanoimprint Lithography Using PFP Condensable Gas. <i>Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi]</i> , 2013, 26, 87-96.	0.3	4
39	Gold Mesh Structures with Controlled Aperture Ratios Fabricated by Reactive-monolayer-assisted Thermal Nanoimprint Lithography. <i>Chemistry Letters</i> , 2012, 41, 1291-1293.	1.3	5
40	Surface Segregation of 1 <i>H</i> ,1 <i>H</i> ,9 <i>H</i> -Hexadecafluorononyl Acrylate in Dimethacrylate Resin Films Cured by Exposure to Ultraviolet Light. <i>Chemistry Letters</i> , 2012, 41, 1294-1296.	1.3	6
41	Photochemically Grafted Polystyrene Layer Assisting Selective Au Electrodeposition. <i>Langmuir</i> , 2012, 28, 11646-11653.	3.5	11
42	A magnetically guided anti-cancer drug delivery system using porous FePt capsules. <i>Biomaterials</i> , 2012, 33, 1682-1687.	11.4	71
43	Morphological Changes in Ultraviolet-Nanoimprinted Resin Patterns Caused by Ultraviolet-Curable Resins Absorbing Pentafluoropropane. <i>Japanese Journal of Applied Physics</i> , 2012, 51, 06FJ05.	1.5	9
44	Silica/Ultraviolet-Cured Resin Nanocomposites for Replica Molds in Ultraviolet Nanoimprinting. <i>Japanese Journal of Applied Physics</i> , 2012, 51, 06FJ04.	1.5	2
45	Ferromagnetic FePt-Nanoparticles/Polycation Hybrid Capsules Designed for a Magnetically Guided Drug Delivery System. <i>Langmuir</i> , 2011, 27, 2923-2928.	3.5	48
46	Nanomedicine for Cancer: Lipid-Based Nanostructures for Drug Delivery and Monitoring. <i>Accounts of Chemical Research</i> , 2011, 44, 1080-1093.	15.6	144
47	Fabrication of Left-Handed Metal Microcoil from Spiral Vessel of Vascular Plant. <i>Advanced Materials</i> , 2011, 23, 5509-5513.	21.0	75
48	Fluorescent Microscopy Proving Resin Adhesion to a Fluorinated Mold Surface Suppressed by Pentafluoropropane in Step-and-Repeat Ultraviolet Nanoimprinting. <i>Japanese Journal of Applied Physics</i> , 2011, 50, 06GK02.	1.5	18
49	Enhanced Durability of Antisticking Layers by Recoating a Silica Surface with Fluorinated Alkylsilane Derivatives by Chemical Vapor Surface Modification. <i>Japanese Journal of Applied Physics</i> , 2010, 49, 06GL12.	1.5	21
50	Photoreactive Chemisorbed Monolayer Suppressing Polymer Dewetting in Thermal Nanoimprint Lithography. <i>Langmuir</i> , 2009, 25, 6604-6606.	3.5	26
51	Dewetting Photocontrol of Poly(styrene) Thin Films by a Photocrosslinkable Monolayer in Thermal Nanoimprint Lithography. <i>Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi]</i> , 2009, 22, 195-199.	0.3	8
52	Photo-induced Graft Reactions of 4-Methoxybenzophenone with Thermoplastic Polymers Designed for Reactive-Monolayer-Assisted Thermal Nanoimprint Lithography. <i>Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi]</i> , 2009, 22, 205-211.	0.3	5
53	Reversible Photoswitching of Ferromagnetic FePt Nanoparticles at Room Temperature. <i>Journal of the American Chemical Society</i> , 2007, 129, 5538-5543.	13.7	70
54	Photochromism induced magnetization changes in Prussian Blue ultrathin films fabricated into the Langmuir-Blodgett films composed of an amphiphilic azobenzene and a deoxyribonucleic acid. <i>Thin Solid Films</i> , 2007, 515, 5476-5483.	1.8	7

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55	Photocontrolled Magnetization of CdS-Modified Prussian Blue Nanoparticles. <i>Journal of the American Chemical Society</i> , 2006, 128, 10978-10982.	13.7	40
56	Pd ²⁺ -Promoted Ni ²⁺ -P Electroless Deposition on a Hydrogen-Bonded Molecular Surface of a Supramolecular Fibrous Template. <i>Chemistry of Materials</i> , 2006, 18, 2152-2158.	6.7	33
57	Formation Process of Silver ⁺ -Polypyrrole Coaxial Nanocables Synthesized by Redox Reaction between AgNO ₃ and Pyrrole in the Presence of Poly(vinylpyrrolidone). <i>Journal of Physical Chemistry B</i> , 2005, 109, 18283-18288.	2.6	131
58	Photo-orientation of mesoporous silica materials via transfer from an azobenzene-containing polymer monolayer. Electronic supplementary information (ESI) available: details on the experimental procedures and IR spectra around the siloxane stretching band. See http://www.rsc.org/suppdata/jm/b3/b310296c/ . <i>Journal of Materials Chemistry</i> , 2004, 14, 328.	6.7	48
59	Selective Ni ²⁺ -P Electroless Plating on Photopatterned Cationic Adsorption Films Influenced by Alkyl Chain Lengths of Polyelectrolyte Adsorbates and Additive Surfactants. <i>Langmuir</i> , 2004, 20, 9844-9851.	3.5	17
60	Photoinduced Polar Transition of Substrate Surfaces by Photodegradable Cationic Adsorbate Monolayers. <i>Langmuir</i> , 2003, 19, 8769-8776.	3.5	5
61	Self-Assembly of Amphoteric Azopyridine Carboxylic Acids II: Aspect Ratio Control of Anisotropic Self-Assembled Fibers By Tuning the π - π Stacking Interaction. <i>Bulletin of the Chemical Society of Japan</i> , 2002, 75, 2533-2539.	3.2	19
62	Photo-orientation of Mesostructured Silica via Hierarchical Multiple Transfer. <i>Chemistry of Materials</i> , 2002, 14, 2842-2844.	6.7	65
63	Controlling Packing Structure of Hydrophobic Alkyl Tails of Monolayered Films of Ion-Paired Macrocyclic Amphiphiles as Studied by Sum-Frequency Generation Spectroscopy. <i>Journal of Physical Chemistry B</i> , 2002, 106, 3855-3859.	2.6	5
64	Photocontrol of liquid motion on an azobenzene monolayer. <i>Journal of Materials Chemistry</i> , 2002, 12, 2262-2269.	6.7	125
65	Photopatterning of self-assembled monolayers to generate aniline moieties. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2002, 204, 1-7.	4.7	17
66	Relationship between the ability to control liquid crystal alignment and wetting properties of calix[4]resorcinarene monolayers. <i>Journal of Materials Chemistry</i> , 2001, 11, 1563-1569.	6.7	37
67	Polarized Photoluminescence from Photopatterned Discotic Liquid Crystal Films. <i>Chemistry of Materials</i> , 2001, 13, 1434-1437.	6.7	50
68	Photochemical Behavior and the Ability to Control Liquid Crystal Alignment of Polymethacrylates with Styrylpyridine Side Chains. <i>Macromolecular Chemistry and Physics</i> , 2001, 202, 325-334.	2.2	15
69	Effect of Methylene Spacers in Poly(methacrylate)s Bearing Styrylpyridine Side Chains on the Ability to Control Liquid Crystal Alignment. <i>Macromolecular Chemistry and Physics</i> , 2001, 202, 354-361.	2.2	12
70	Photochromism of 4-cyanophenylazobenzene in liquid crystalline-coil AB diblock copolymers: the influence of microstructure. <i>Macromolecular Rapid Communications</i> , 2000, 21, 1309-1312.	3.9	34
71	Surface relief gratings generated by a photocrosslinkable polymer with styrylpyridine side chains. <i>Applied Physics Letters</i> , 2000, 76, 2520-2522.	3.3	31
72	Self-Assembly of Amphoteric Azopyridine Carboxylic Acids: Organized Structures and Macroscopic Organized Morphology Influenced by Heat, pH Change, and Light. <i>Journal of the American Chemical Society</i> , 2000, 122, 10997-11004.	13.7	102

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73	Light-Driven Motion of Liquids on a Photoresponsive Surface. <i>Science</i> , 2000, 288, 1624-1626.	12.6	1,363
74	Photogeneration of pretilt angles of nematic liquid crystals by azobenzene-containing monolayers on poly(acrylic acid) films. <i>Journal of Materials Chemistry</i> , 2000, 10, 833-837.	6.7	12
75	Fibrous Self-Organization of an Azopyridine Carboxylic Acid through Head-to-Tail Hydrogen Bonds. <i>Chemistry Letters</i> , 1999, 28, 1205-1206.	1.3	7
76	Preparation of Monolayers of Ion-Paired Macrocyclic Amphiphiles to Estimate a Critical Free Space Required for Azobenzene Photoisomerization. <i>Chemistry Letters</i> , 1999, 28, 1209-1210.	1.3	17
77	Self-Assembled Monolayers Derived from Calix[4]resorcinarenes Exhibiting Excellent Desorption-Resistance and Their Applicability to Surface Energy Photocontrol. <i>Chemistry Letters</i> , 1999, 28, 349-350.	1.3	9
78	Photochemistry of Polymethacrylates with Styrylpyridine Side Chains and Their Photocontrollability of Liquid Crystal Alignment.. <i>Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi]</i> , 1999, 12, 279-282.	0.3	6
79	Synthesis and charge transfer interactions of cyclobis(4,4'-azopyridinium-p-phenylene). <i>Supramolecular Science</i> , 1996, 3, 215-220.	0.7	4
80	High conducting Langmuir-Blodgett films comprising head-to-tail poly (3-hexylmiophene). <i>Thin Solid Films</i> , 1996, 273, 240-244.	1.8	31