Shigenori Fujikawa

List of Publications by Year
in descending order

89	2,650	236925 25	197818 49
papers	citations	h-index	g-index

93	93	93	4030
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Coexistence and transition between Cassie and Wenzel state on pillared hydrophobic surface. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 8435-8440.	7.1	395
2	Effects of composition of the micro porous layer and the substrate on performance in the electrochemical reduction of CO2 to CO. Journal of Power Sources, 2016, 312, 192-198.	7.8	177
3	Au Double Nanopillars with Nanogap for Plasmonic Sensor. Nano Letters, 2011, 11, 8-15.	9.1	156
4	Measurement of Contact-Angle Hysteresis for Droplets on Nanopillared Surface and in the Cassie and Wenzel States: A Molecular Dynamics Simulation Study. ACS Nano, 2011, 5, 6834-6842.	14.6	152
5	Efficient Fabrication and Enhanced Photocatalytic Activities of 3D-Ordered Films of Titania Hollow Spheres. Journal of Physical Chemistry B, 2006, 110, 13000-13004.	2.6	141
6	High Temperature Proton Conduction in Nanocellulose Membranes: Paper Fuel Cells. Chemistry of Materials, 2016, 28, 4805-4814.	6.7	134
7	A Palladiumâ€Nanoparticle and Siliconâ€Nanowireâ€Array Hybrid: A Platform for Catalytic Heterogeneous Reactions. Angewandte Chemie - International Edition, 2014, 53, 127-131.	13.8	116
8	A new strategy for membrane-based direct air capture. Polymer Journal, 2021, 53, 111-119.	2.7	76
9	Alkaline anion exchange membranes based on KOH-treated multilayer graphene oxide. Journal of Membrane Science, 2016, 508, 51-61.	8.2	69
10	Surface Fabrication of Hollow Nanoarchitectures of Ultrathin Titania Layers from Assembled Latex Particles and Tobacco Mosaic Viruses as Templatesâ€. Langmuir, 2003, 19, 6545-6552.	3.5	65
11	Macroscale Superlubricity of Multilayer Polyethylenimine/Graphene Oxide Coatings in Different Gas Environments. ACS Applied Materials & Interfaces, 2016, 8, 27179-27187.	8.0	57
12	Thickness Effect on CO2/N2 Separation in Double Layer Pebax-1657Â®/PDMS Membranes. Membranes, 2018, 8, 121.	3.0	51
13	Ultra-low friction between polymers and graphene oxide multilayers in nitrogen atmosphere, mediated by stable transfer film formation. Carbon, 2017, 122, 395-403.	10.3	48
14	Mesoscopic supramolecular assembly of a â€˜Janusâ€™ molecule and a melamine derivative via complementary hydrogen bonds. Journal of the Chemical Society Chemical Communications, 1995, , 2103-2104.	2.0	46
15	Gordon Bell finalists II---A 55 TFLOPS simulation of amyloid-forming peptides from yeast prion Sup35 with the special-purpose computer system MDGRAPE-3. , 2006, , .		43
16	A General, Efficient Method of Incorporation of Metal Ions into Ultrathin TiO2Films. Chemistry of Materials, 2002, 14, 3493-3500.	6.7	41
17	Critical Role of the Molecular Interface in Double-Layered Pebax-1657/PDMS Nanomembranes for Highly Efficient CO₂/N₂ Gas Separation. ACS Applied Materials & Interfaces, 2020, 12, 33196-33209.	8.0	41
18	Achieving a Carbon Neutral Future through Advanced Functional Materials and Technologies. Bulletin of the Chemical Society of Japan, 2022, 95, 73-103.	3.2	39

#	Article	IF	Citations
19	Facile strain analysis of largely bending films by a surface-labelled grating method. Scientific Reports, 2014, 4, 5377.	3.3	33
20	Reversible conversion of nanoparticles of metallic silver and silver oxide in ultrathin TiO2 films: a chemical transformation in nano-space. Chemical Communications, 2002, , 1910-1911.	4.1	31
21	Fabrication of Arrays of Sub-20-nm Silica Walls via Photolithography and Solution-Based Molecular Coating. Langmuir, 2006, 22, 9057-9061.	3.5	30
22	Membrane thinning for efficient CO₂ capture. Science and Technology of Advanced Materials, 2017, 18, 816-827.	6.1	30
23	Controlled Polymerization and Self-Assembly of Halogen-Bridged Diruthenium Complexes in Organic Media and Their Dielectrophoretic Alignment. Journal of the American Chemical Society, 2012, 134, 1192-1199.	13.7	28
24	o-Phenylene Octamers as Surface Modifiers for Homeotropic Columnar Ordering of Discotic Liquid Crystals. Journal of the American Chemical Society, 2013, 135, 14564-14567.	13.7	28
25	Hydrogen storage and thermal conductivity properties of Mg-based materials with different structures. International Journal of Hydrogen Energy, 2014, 39, 9893-9898.	7.1	27
26	Preparation of Porous and Nonporous Silica Nanofilms from Aqueous Sodium Silicate. Chemistry of Materials, 2003, 15, 3308-3313.	6.7	25
27	Ultra-fast, Selective CO₂ Permeation by Free-standing Siloxane Nanomembranes. Chemistry Letters, 2019, 48, 1351-1354.	1.3	22
28	Photoluminescence Modification in 3D-Ordered Films of Fluorescent Microspheres. Langmuir, 2007, 23, 9109-9113.	3.5	21
29	AFM Observation of Organogel Nanostructures on Graphite in the Gel-Assisted Transfer Technique. Chemistry Letters, 1998, 27, 967-968.	1.3	20
30	Molecular dynamics simulations of ureaâ€“water binary droplets on flat and pillared hydrophobic surfaces. Faraday Discussions, 2010, 146, 185.	3.2	20
31	Spray deposition of sulfonated cellulose nanofibers as electrolyte membranes in fuel cells. Cellulose, 2021, 28, 1355-1367.	4.9	20
32	Fast Hydrophobicity Recovery of the Surface-Hydrophilic Poly(dimethylsiloxane) Films Caused by Rechemisorption of Dimethylsiloxane Derivatives. Langmuir, 2019, 35, 9747-9752.	3.5	19
33	Nanocopying of Individual DNA Strands and Formation of the Corresponding Surface Pattern of Titania Nanotube. Langmuir, 2005, 21, 8899-8904.	3.5	18
34	Facile Fabrication of Silver Nanofin Array via Electroless Plating. Langmuir, 2008, 24, 4205-4208.	3.5	18
35	Molecular Insight into Different Denaturing Efficiency of Urea, Guanidinium, and Methanol: A Comparative Simulation Study. Journal of Chemical Theory and Computation, 2013, 9, 2540-2551.	5.3	18
36	Production of Bio Hydrofined Diesel, Jet Fuel, and Carbon Monoxide from Fatty Acids Using a Silicon Nanowire Array-Supported Rhodium Nanoparticle Catalyst under Microwave Conditions. ACS Catalysis, 2020, 10, 2148-2156.	11.2	18

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37	Nanochannel Design by Molecular Imprinting on a Free-Standing Ultrathin Titania Membrane. Langmuir, 2009, 25, 11563-11568.	3.5	17
38	Direct electrochemistry and intramolecular electron transfer of ascorbate oxidase confined on l-cysteine self-assembled gold electrode. Bioelectrochemistry, 2014, 95, 15-22.	4.6	17
39	Ultra-low friction of polyethylenimine / molybdenum disulfide (PEI/MoS2)15 thin films in dry nitrogen atmosphere and the effect of heat treatment. Tribology International, 2018, 127, 255-263.	5.9	17
40	Geological storage of CO₂â€“N₂â€“O₂ mixtures produced by membraneâ€based direct air capture (DAC). , 2021, 11, 610-618.		17
41	Sensitivity to refractive index of high-aspect-ratio nanofins with optical vortex. Nanotechnology, 2012, 23, 505502.	2.6	16
42	Molecular Hybridization of Polydimethylsiloxane with Zirconia for Highly Gas Permeable Membranes. ACS Applied Polymer Materials, 2019, 1, 1165-1174.	4.4	16
43	Efficient fabrication of large, robust films of 3D-ordered polystyrene latex. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2006, 275, 209-217.	4.7	15
44	Embedding of Individual Ferritin Molecules in Large, Self-Supporting Silica Nanofilms. Langmuir, 2007, 23, 4629-4633.	3.5	14
45	Embedding of a gold nanofin array in a polymer film to create transparent, flexible and anisotropic electrodes. Journal of Materials Chemistry, 2009, 19, 2154.	6.7	14
46	Highly efficient transformation of linear poly(phenylene ethynylene)s into zigzag-shaped Ï€-conjugated microporous polymers through boron-mediated alkyne benzannulation. Materials Chemistry Frontiers, 2018, 2, 807-814.	5.9	13
47	Nanocopying as a Means of 3D Nanofabrication: Scope and Prospects. Australian Journal of Chemistry, 2003, 56, 1001.	0.9	12
48	Surface Fabrication of Interconnected Hollow Spheres of nm-Thick Titania Shell. Chemistry Letters, 2002, 31, 1134-1135.	1.3	11
49	Development of polymer-polymer type charge-transfer blend membranes for fuel cell application. Journal of Membrane Science, 2018, 548, 223-231.	8.2	11
50	Mechanical Reinforcement of Free-Standing Polymeric Nanomembranes via Aluminosilicate Nanotube Scaffolding. ACS Applied Polymer Materials, 2019, 1, 112-117.	4.4	10
51	Structure and Properties of Hybrid Film Fabricated by Spin-Assisted Layer-by-Layer Assembly of Sacran and Imogolite Nanotubes. Langmuir, 2020, 36, 1718-1726.	3.5	10
52	Direct air capture by membranes. MRS Bulletin, 2022, 47, 416-423.	3.5	10
53	Robust, Hyper-Permeable Nanomembrane Composites of Poly(dimethylsiloxane) and Cellulose Nanofibers. ACS Applied Materials & Interfaces, 2021, 13, 61189-61195.	8.0	9
54	Rapid Fabrication of a Smooth Hollow-Spheres Array. Bulletin of the Chemical Society of Japan, 2007, 80, 1226-1228.	3.2	8

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55	Fabrication of nanoline arrays of noble metals by electroless plating and selective etching process. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2008, 321, 238-243.	4.7	8
56	Photoinduced Crystallization in Ionic Liquids: Photodimerization-induced Equilibrium Shift and Crystal Patterning. Chemistry Letters, 2015, 44, 908-910.	1.3	8
57	Organization of Hydrophilic Nanoparticles on a Hydrogel Surface and Their Gel-Assisted Transfer to Solid Substrates. Advanced Materials, 1998, 10, 1373-1376.	21.0	7
58	Effect of surface treatment on molecular alignment behavior by scanning wave photopolymerization. Applied Physics Express, 2019, 12, 041004.	2.4	7
59	An Alternative Carbon Dioxide Capture by Electrochemical Method. Chemistry Letters, 2014, 43, 1601-1603.	1.3	6
60	Preliminary Feasibility Study for On-Site Hydrogen Station with Distributed CO2 Capture and Storage System. Energy Procedia, 2014, 63, 4575-4584.	1.8	6
61	Effect of Hardness on Surface Strain of PDMS Films Detected by a Surface Labeled Grating Method. Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi], 2018, 31, 523-526.	0.3	6
62	Fabrication of nanofins of TiO2 and other metal oxides via the surface solâ€“gel process and selective dry etching. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2008, 321, 227-232.	4.7	5
63	CO2 Separation with Nano-thick Polymeric Membrane for Pre- combustion. Energy Procedia, 2014, 63, 235-242.	1.8	5
64	3D Nanoarchitecture from Ultrathin Titania Film via Surface Solâ€“Gel Process and Photolithography. Chemistry Letters, 2005, 34, 1414-1415.	1.3	4
65	Size-Controlled Simple Fabrication of Free-Standing, Ultralong Metal Nanobelt Array. Journal of Nanoscience and Nanotechnology, 2011, 11, 131-137.	0.9	4
66	Fabrication and Unique Optical Properties of Two-Dimensional Silver Nanorod Arrays with Nanometer Gaps on a Silicon Substrate from a Self-Assembled Template of Diblock Copolymer. Langmuir, 2016, 32, 12504-12510.	3.5	4
67	Preferential CO2 Separation Over Nitrogen by a Free-standing and Nanometer-thick Membrane. Energy Procedia, 2017, 114, 608-612.	1.8	4
68	Preparation of large, ultra-flexible and free-standing nanomembranes of metal oxideâ€“polymer composite and their gas permeation properties. Clean Energy, 2017, 1, 80-89.	3.2	4
69	Characterization of polymer-polymer type charge-transfer (CT) blend membranes for fuel cell application. Data in Brief, 2018, 18, 22-29.	1.0	4
70	Thermal and Gas Adsorption Properties of TrÃ¶ger's Base/Diazaâ€cyclooctane Hybrid Ladder Polymers. ChemNanoMat, 2021, 7, 824-830.	2.8	4
71	The effect of oxygen on the tribology of (PEI/GO)15 multilayer solid lubricant coatings on steel substrates. Wear, 2019, 432-433, 102920.	3.1	3
72	Study of Gases Permeation in Necklace-Shaped Dimethylsiloxane Polymers Bearing POSS Cages. Membranes, 2019, 9, 54.	3.0	3

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73	Polar Switching of Dipolar Molecules Confined in Submicron- and Micron-sized Pores in Polymer Films. Chemistry Letters, 2020, 49, 255-259.	1.3	3
74	PREPARATION OF HOLLOW STRUCTURES COMPOSED OF TITANIA NANOCRYSTAL ASSEMBLY. International Journal of Nanoscience, 2002, 01, 617-620.	0.7	2
75	High sensitivity refractive index sensing with strong light confinement in high-aspect-ratio U-cavity arrays. Sensors and Actuators B: Chemical, 2014, 202, 137-143.	7.8	2
76	â€œArtificial Woodâ€•Lignocellulosic Membranes: Influence of Kraft Lignin on the Properties and Gas Transport in Tunicate-Based Nanocellulose Composites. Membranes, 2021, 11, 204.	3.0	2
77	Suppression of radical attack in polymer electrolyte membranes using a vinyl polymer blend interlayer with low oxygen permeability. Journal of Membrane Science, 2022, 658, 120734.	8.2	2
78	Protein Assembly on Solid Surfaces by Gel-Assisted Transfer (GAT) Technique. Chemistry Letters, 1998, 27, 821-822.	1.3	1
79	Manipulation of a one dimensional molecular assembly of helical superstructures by dielectrophoresis. Applied Physics Letters, 2009, 95, 163110.	3.3	1
80	Design of Polymer Coating Materials for Long-term Hydrophilic Stability of Poly(dimethylsiloxane) Surfaces. Chemistry Letters, 2019, 48, 1152-1155.	1.3	1
81	Self-supporting Functional Nanomembranes of Metal Oxide/Polymer Blends. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2021, , 442-452.	0.3	1
82	Organization of Hydrophilic Nanoparticles on a Hydrogel Surface and Their Gel-Assisted Transfer to Solid Substrates. , 1998, 10, 1373.		1
83	Organization of Hydrophilic Nanoparticles on a Hydrogel Surface and Their Gel-Assisted Transfer to Solid Substrates. Advanced Materials, 1998, 10, 1373-1376.	21.0	1
84	SYNTHESIS OF METAL AND METAL OXIDE NANOPARTICLES IN THE NANOSPACE OF ULTRATHIN TiO2-Gel FILMS: ROLE OF THE ION-EXCHANGE SITE. International Journal of Nanoscience, 2002, 01, 507-513.	0.7	0
85	SYNTHESIS OF METAL AND METAL OXIDE NANOPARTICLES IN THE NANOSPACE OF ULTRATHIN TiO₂-GEL FILMS: ROLE OF THE ION-EXCHANGE SITE. , 2003, , .		0
86	Preferential CO2 Separation over H2 with Poly(amidoamine) Dendrimer-Containing Polymeric Membrane. Materials Research Society Symposia Proceedings, 2014, 1660, 1.	0.1	0
87	Specific Uniaxial Self-assembly of Columnar Perylene Liquid Crystals in Au Nanofin Arrays. Chemistry Letters, 2018, 47, 354-357.	1.3	0
88	First synthesis of chlorin skeleton containing thiazole and thiophene rings and its optical properties. Journal of Porphyrins and Phthalocyanines, 0, , .	0.8	0
89	Electronic Structure of Carbon Dioxide in Sylgard-184 Evaluated by Using X-ray Emission Spectroscopy. Chemistry Letters, 2022, 51, 650-653.	1.3	0