Masafumi Fukuto

List of Publications by Year
in descending order

54	1,648	236925 25	302126 39
papers	citations	h-index	g-index

54	54	54	2028
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Influence of the Nature of Aliphatic Hydrophobic Physical Crosslinks on Water Crystallization in Copolymer Hydrogels. Journal of Physical Chemistry B, 2022, 126, 5544-5554.	2.6	1
2	Gaussian processes for autonomous data acquisition at large-scale synchrotron and neutron facilities. Nature Reviews Physics, 2021, 3, 685-697.	26.6	44
3	Kinetically controlled morphology in copolymer-based hydrogels crosslinked by crystalline nanodomains determines efficacy of ice inhibition. Molecular Systems Design and Engineering, 2020, 5, 645-655.	3.4	6
4	Achieving Flat-on Primary Crystals by Nanoconfined Crystallization in High-Temperature Polycarbonate/Poly(vinylidene fluoride) Multilayer Films and Its Effect on Dielectric Insulation. ACS Applied Materials & Interfaces, 2020, 12, 44892-44901.	8.0	20
5	Autonomous materials discovery driven by Gaussian process regression with inhomogeneous measurement noise and anisotropic kernels. Scientific Reports, 2020, 10, 17663.	3.3	38
6	Cyclic Topology Enhancing Structural Ordering and Stability of Comb-Shaped Polypeptoid Thin Films against Melt-Induced Dewetting. Macromolecules, 2020, 53, 7601-7612.	4.8	10
7	Ultrastructure of Critical-Gel-like Polyzwitterionâ€“Polyoxometalate Complex Coacervates: Effects of Temperature, Salt Concentration, and Shear. Macromolecules, 2020, 53, 10972-10980.	4.8	4
8	Future trends in synchrotron science at NSLS-II. Journal of Physics Condensed Matter, 2020, 32, 374008.	1.8	7
9	Reducing dielectric loss and enhancing electrical insulation for multilayer polymer films by nanoconfined ion transport under high poling electric fields. Journal of Materials Chemistry C, 2020, 8, 6102-6117.	5.5	20
10	Wet Brush Homopolymers as â€œSmart Solventsâ€•for Rapid, Large Period Block Copolymer Thin Film Self-Assembly. Macromolecules, 2020, 53, 1098-1113.	4.8	24
11	Advances in Kriging-Based Autonomous X-Ray Scattering Experiments. Scientific Reports, 2020, 10, 1325.	3.3	28
12	Long-Range Lamellar Alignment in Diblock Bottlebrush Copolymers via Controlled Oscillatory Shear. Macromolecules, 2020, 53, 2834-2840.	4.8	9
13	â€œStructurally Neutralâ€•Densely Packed Homopolymer-Adsorbed Chains for Directed Self-Assembly of Block Copolymer Thin Films. Macromolecules, 2019, 52, 5157-5167.	4.8	12
14	Unconventional Complex Coacervation between Neutral Polymer and Inorganic Polyoxometalate in Aqueous Solution via Direct Water Mediation. Macromolecules, 2019, 52, 8275-8284.	4.8	18
15	Strain rate dependent nanostructure of hydrogels with reversible hydrophobic associations during uniaxial extension. Soft Matter, 2019, 15, 227-236.	2.7	15
16	A Kriging-Based Approach to Autonomous Experimentation with Applications to X-Ray Scattering. Scientific Reports, 2019, 9, 11809.	3.3	72
17	Linker-Mediated Assembly of Virus-Like Particles into Ordered Arrays via Electrostatic Control. ACS Applied Bio Materials, 2019, 2, 2192-2201.	4.6	21
18	High Dielectric Constant Polycarbonate/Nylon Multilayer Films Capacitors with Self-Healing Capability. ACS Applied Polymer Materials, 2019, 1, 867-875.	4.4	60

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19	Antifreeze Hydrogels from Amphiphilic Statistical Copolymers. Chemistry of Materials, 2019, 31, 135-145.	6.7	39
20	Liquid interfaces with pH-switchable nanoparticle arrays. Soft Matter, 2018, 14, 3929-3934.	2.7	14
21	Structure-induced switching of interpolymer adhesion at a solidâ€“polymer melt interface. Soft Matter, 2018, 14, 1108-1119.	2.7	30
22	Pathway-engineering for highly-aligned block copolymer arrays. Nanoscale, 2018, 10, 416-427.	5.6	28
23	Modular Self-Assembly of Protein Cage Lattices for Multistep Catalysis. ACS Nano, 2018, 12, 942-953.	14.6	86
24	Self-Organization of Triblock Copolymer Melt Chains Physisorbed on Non-neutral Surfaces. ACS Omega, 2018, 3, 17805-17813.	3.5	6
25	Thickness-Dependent Ordering Kinetics in Cylindrical Block Copolymer/Homopolymer Ternary Blends. Macromolecules, 2018, 51, 10259-10270.	4.8	29
26	Thickness Limit for Alignment of Block Copolymer Films Using Solvent Vapor Annealing with Shear. Macromolecules, 2018, 51, 4213-4219.	4.8	12
27	Flat-On Secondary Crystals as Effective Blocks To Reduce Ionic Conduction Loss in Polysulfone/Poly(vinylidene fluoride) Multilayer Dielectric Films. Macromolecules, 2018, 51, 5019-5026.	4.8	30
28	Rapid assessment of crystal orientation in semi-crystalline polymer films using rotational zone annealing and impact of orientation on mechanical properties. Soft Matter, 2017, 13, 7074-7084.	2.7	5
29	Enhanced dielectric properties due to space charge-induced interfacial polarization in multilayer polymer films. Journal of Materials Chemistry C, 2017, 5, 10417-10426.	5.5	108
30	Novel Effects of Compressed CO₂ Molecules on Structural Ordering and Charge Transport in Conjugated Poly(3-hexylthiophene) Thin Films. Langmuir, 2016, 32, 10851-10860.	3.5	9
31	Transmission X-ray scattering as a probe for complex liquid-surface structures. Journal of Synchrotron Radiation, 2016, 23, 519-531.	2.4	4
32	Melt crystallization/dewetting of ultrathin PEO films via carbon dioxide annealing: the effects of polymer adsorbed layers. Soft Matter, 2014, 10, 6392.	2.7	50
33	Tunable Nanoparticle Arrays at Charged Interfaces. ACS Nano, 2014, 8, 9857-9866.	14.6	61
34	Two-Dimensional DNA-Programmable Assembly of Nanoparticles at Liquid Interfaces. Journal of the American Chemical Society, 2014, 136, 8323-8332.	13.7	73
35	Crystallization, structural diversity and anisotropy effects in 2D arrays of icosahedral viruses. Soft Matter, 2013, 9, 9633.	2.7	13
36	Systematic approach to electrostatically induced 2D crystallization of nanoparticles at liquid interfaces. Soft Matter, 2011, 7, 939-945.	2.7	21

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37	Role of electrostatic interactions in two-dimensional self-assembly of tobacco mosaic viruses on cationic lipid monolayers. Journal of Colloid and Interface Science, 2011, 358, 497-505.	9.4	10
38	Effects of Divalent Cations on Phase Behavior and Structure of a Zwitterionic Phospholipid (DMPC) Monolayer at the Airâ^'Water Interface. Journal of Physical Chemistry Letters, 2010, 1, 489-495.	4.6	45
39	Formation and Collapse of Single-Monomer-Thick Monolayers of Poly(n-butyl acrylate) at the Airâ^'Water Interface. Macromolecules, 2010, 43, 2990-3003.	4.8	26
40	Effects of surface ligand density on lipid-monolayer-mediated 2D assembly of proteins. Soft Matter, 2010, 6, 1513.	2.7	14
41	Structure and interaction in 2D assemblies of tobacco mosaic viruses. Soft Matter, 2009, 5, 4951.	2.7	22
42	Wetting of liquid-crystal surfaces and induced smectic layering at a nematic-liquid interface: An x-ray reflectivity study. Physical Review E, 2008, 77, 031607.	2.1	31
43	Capillary wave fluctuations and intrinsic widths of coupled fluid-fluid interfaces: An x-ray scattering study of a wetting film on bulk liquid. Physical Review E, 2006, 74, 031607.	2.1	28
44	Critical Casimir Effect in Three-Dimensional Ising Systems: Measurements on Binary Wetting Films. Physical Review Letters, 2005, 94, 135702.	7.8	136
45	Liquids on Topologically Nanopatterned Surfaces. Physical Review Letters, 2005, 95, 217801.	7.8	53
46	Monolayer/bilayer transition in Langmuir films of derivatized gold nanoparticles at the gas/water interface: An x-ray scattering study. Journal of Chemical Physics, 2004, 120, 3446-3459.	3.0	51
47	Surface layering of liquids: The role of surface tension. Physical Review B, 2004, 69, .	3.2	69
48	Internal segregation and side chain ordering in hairy-rod polypeptide monolayers at the gas/water interface: An x-ray scattering study. Journal of Chemical Physics, 2003, 119, 6253-6270.	3.0	14
49	Wetting of hydrocarbon liquid surfaces by fluorocarbon vapor: a microscopic study. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2002, 206, 293-297.	4.7	6
50	Quenching of capillary waves in composite wetting films from a binary vapor: An x-ray reflectivity study. Physical Review B, 2001, 63, .	3.2	24
51	X-ray-induced thinning of3Heand3He/4Hemixture films. Physical Review B, 2000, 62, 9641-9647.	3.2	2
52	4Heliquid-vapor interface below 1 K studied using x-ray reflectivity. Physical Review B, 2000, 62, 9621-9640.	3.2	30
53	Structure of poly(Î³-benzyl-L-glutamate) monolayers at the gasâ€“water interface: A Brewster angle microscopy and x-ray scattering study. Journal of Chemical Physics, 1999, 111, 9761-9777.	3.0	41
54	C60-propylamine adduct monolayers at the gas/water interface: A Brewster angle microscopy and x-ray scattering study. Journal of Chemical Physics, 1997, 107, 5531-5546.	3.0	19