

Masafumi Fukuto

List of Publications by Year in descending order

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54
papers

1,648
citations

236925

25
h-index

302126

39
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54
all docs

54
docs citations

54
times ranked

2028
citing authors

#	ARTICLE	IF	CITATIONS
1	Critical Casimir Effect in Three-Dimensional Ising Systems: Measurements on Binary Wetting Films. <i>Physical Review Letters</i> , 2005, 94, 135702.	7.8	136
2	Enhanced dielectric properties due to space charge-induced interfacial polarization in multilayer polymer films. <i>Journal of Materials Chemistry C</i> , 2017, 5, 10417-10426.	5.5	108
3	Modular Self-Assembly of Protein Cage Lattices for Multistep Catalysis. <i>ACS Nano</i> , 2018, 12, 942-953.	14.6	86
4	Two-Dimensional DNA-Programmable Assembly of Nanoparticles at Liquid Interfaces. <i>Journal of the American Chemical Society</i> , 2014, 136, 8323-8332.	13.7	73
5	A Kriging-Based Approach to Autonomous Experimentation with Applications to X-Ray Scattering. <i>Scientific Reports</i> , 2019, 9, 11809.	3.3	72
6	Surface layering of liquids: The role of surface tension. <i>Physical Review B</i> , 2004, 69, .	3.2	69
7	Tunable Nanoparticle Arrays at Charged Interfaces. <i>ACS Nano</i> , 2014, 8, 9857-9866.	14.6	61
8	High Dielectric Constant Polycarbonate/Nylon Multilayer Films Capacitors with Self-Healing Capability. <i>ACS Applied Polymer Materials</i> , 2019, 1, 867-875.	4.4	60
9	Liquids on Topologically Nanopatterned Surfaces. <i>Physical Review Letters</i> , 2005, 95, 217801.	7.8	53
10	Monolayer/bilayer transition in Langmuir films of derivatized gold nanoparticles at the gas/water interface: An x-ray scattering study. <i>Journal of Chemical Physics</i> , 2004, 120, 3446-3459.	3.0	51
11	Melt crystallization/dewetting of ultrathin PEO films via carbon dioxide annealing: the effects of polymer adsorbed layers. <i>Soft Matter</i> , 2014, 10, 6392.	2.7	50
12	Effects of Divalent Cations on Phase Behavior and Structure of a Zwitterionic Phospholipid (DMPC) Monolayer at the Air/Water Interface. <i>Journal of Physical Chemistry Letters</i> , 2010, 1, 489-495.	4.6	45
13	Gaussian processes for autonomous data acquisition at large-scale synchrotron and neutron facilities. <i>Nature Reviews Physics</i> , 2021, 3, 685-697.	26.6	44
14	Structure of poly(β -benzyl-L-glutamate) monolayers at the gas/water interface: A Brewster angle microscopy and x-ray scattering study. <i>Journal of Chemical Physics</i> , 1999, 111, 9761-9777.	3.0	41
15	Antifreeze Hydrogels from Amphiphilic Statistical Copolymers. <i>Chemistry of Materials</i> , 2019, 31, 135-145.	6.7	39
16	Autonomous materials discovery driven by Gaussian process regression with inhomogeneous measurement noise and anisotropic kernels. <i>Scientific Reports</i> , 2020, 10, 17663.	3.3	38
17	Wetting of liquid-crystal surfaces and induced smectic layering at a nematic-liquid interface: An x-ray reflectivity study. <i>Physical Review E</i> , 2008, 77, 031607.	2.1	31
18	^4He liquid-vapor interface below 1 K studied using x-ray reflectivity. <i>Physical Review B</i> , 2000, 62, 9621-9640.	3.2	30

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19	Structure-induced switching of interpolymer adhesion at a solid-polymer melt interface. <i>Soft Matter</i> , 2018, 14, 1108-1119.	2.7	30
20	Flat-On Secondary Crystals as Effective Blocks To Reduce Ionic Conduction Loss in Polysulfone/Poly(vinylidene fluoride) Multilayer Dielectric Films. <i>Macromolecules</i> , 2018, 51, 5019-5026.	4.8	30
21	Thickness-Dependent Ordering Kinetics in Cylindrical Block Copolymer/Homopolymer Ternary Blends. <i>Macromolecules</i> , 2018, 51, 10259-10270.	4.8	29
22	Capillary wave fluctuations and intrinsic widths of coupled fluid-fluid interfaces: An x-ray scattering study of a wetting film on bulk liquid. <i>Physical Review E</i> , 2006, 74, 031607.	2.1	28
23	Pathway-engineering for highly-aligned block copolymer arrays. <i>Nanoscale</i> , 2018, 10, 416-427.	5.6	28
24	Advances in Kriging-Based Autonomous X-Ray Scattering Experiments. <i>Scientific Reports</i> , 2020, 10, 1325.	3.3	28
25	Formation and Collapse of Single-Monomer-Thick Monolayers of Poly(<i>n</i> -butyl acrylate) at the Air-Water Interface. <i>Macromolecules</i> , 2010, 43, 2990-3003.	4.8	26
26	Quenching of capillary waves in composite wetting films from a binary vapor: An x-ray reflectivity study. <i>Physical Review B</i> , 2001, 63, .	3.2	24
27	Wet Brush Homopolymers as "Smart Solvents" for Rapid, Large Period Block Copolymer Thin Film Self-Assembly. <i>Macromolecules</i> , 2020, 53, 1098-1113.	4.8	24
28	Structure and interaction in 2D assemblies of tobacco mosaic viruses. <i>Soft Matter</i> , 2009, 5, 4951.	2.7	22
29	Systematic approach to electrostatically induced 2D crystallization of nanoparticles at liquid interfaces. <i>Soft Matter</i> , 2011, 7, 939-945.	2.7	21
30	Linker-Mediated Assembly of Virus-Like Particles into Ordered Arrays via Electrostatic Control. <i>ACS Applied Bio Materials</i> , 2019, 2, 2192-2201.	4.6	21
31	Achieving Flat-on Primary Crystals by Nanoconfined Crystallization in High-Temperature Polycarbonate/Poly(vinylidene fluoride) Multilayer Films and Its Effect on Dielectric Insulation. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 44892-44901.	8.0	20
32	Reducing dielectric loss and enhancing electrical insulation for multilayer polymer films by nanoconfined ion transport under high poling electric fields. <i>Journal of Materials Chemistry C</i> , 2020, 8, 6102-6117.	5.5	20
33	C60-propylamine adduct monolayers at the gas/water interface: A Brewster angle microscopy and x-ray scattering study. <i>Journal of Chemical Physics</i> , 1997, 107, 5531-5546.	3.0	19
34	Unconventional Complex Coacervation between Neutral Polymer and Inorganic Polyoxometalate in Aqueous Solution via Direct Water Mediation. <i>Macromolecules</i> , 2019, 52, 8275-8284.	4.8	18
35	Strain rate dependent nanostructure of hydrogels with reversible hydrophobic associations during uniaxial extension. <i>Soft Matter</i> , 2019, 15, 227-236.	2.7	15
36	Internal segregation and side chain ordering in hairy-rod polypeptide monolayers at the gas/water interface: An x-ray scattering study. <i>Journal of Chemical Physics</i> , 2003, 119, 6253-6270.	3.0	14

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37	Effects of surface ligand density on lipid-monolayer-mediated 2D assembly of proteins. <i>Soft Matter</i> , 2010, 6, 1513.	2.7	14
38	Liquid interfaces with pH-switchable nanoparticle arrays. <i>Soft Matter</i> , 2018, 14, 3929-3934.	2.7	14
39	Crystallization, structural diversity and anisotropy effects in 2D arrays of icosahedral viruses. <i>Soft Matter</i> , 2013, 9, 9633.	2.7	13
40	Thickness Limit for Alignment of Block Copolymer Films Using Solvent Vapor Annealing with Shear. <i>Macromolecules</i> , 2018, 51, 4213-4219.	4.8	12
41	Structurally Neutral Densely Packed Homopolymer-Adsorbed Chains for Directed Self-Assembly of Block Copolymer Thin Films. <i>Macromolecules</i> , 2019, 52, 5157-5167.	4.8	12
42	Role of electrostatic interactions in two-dimensional self-assembly of tobacco mosaic viruses on cationic lipid monolayers. <i>Journal of Colloid and Interface Science</i> , 2011, 358, 497-505.	9.4	10
43	Cyclic Topology Enhancing Structural Ordering and Stability of Comb-Shaped Polypeptoid Thin Films against Melt-Induced Dewetting. <i>Macromolecules</i> , 2020, 53, 7601-7612.	4.8	10
44	Novel Effects of Compressed CO ₂ Molecules on Structural Ordering and Charge Transport in Conjugated Poly(3-hexylthiophene) Thin Films. <i>Langmuir</i> , 2016, 32, 10851-10860.	3.5	9
45	Long-Range Lamellar Alignment in Diblock Bottlebrush Copolymers via Controlled Oscillatory Shear. <i>Macromolecules</i> , 2020, 53, 2834-2840.	4.8	9
46	Future trends in synchrotron science at NSLS-II. <i>Journal of Physics Condensed Matter</i> , 2020, 32, 374008.	1.8	7
47	Wetting of hydrocarbon liquid surfaces by fluorocarbon vapor: a microscopic study. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2002, 206, 293-297.	4.7	6
48	Self-Organization of Triblock Copolymer Melt Chains Physisorbed on Non-neutral Surfaces. <i>ACS Omega</i> , 2018, 3, 17805-17813.	3.5	6
49	Kinetically controlled morphology in copolymer-based hydrogels crosslinked by crystalline nanodomains determines efficacy of ice inhibition. <i>Molecular Systems Design and Engineering</i> , 2020, 5, 645-655.	3.4	6
50	Rapid assessment of crystal orientation in semi-crystalline polymer films using rotational zone annealing and impact of orientation on mechanical properties. <i>Soft Matter</i> , 2017, 13, 7074-7084.	2.7	5
51	Ultrastructure of Critical-Gel-like Polyzwitterion-Polyoxometalate Complex Coacervates: Effects of Temperature, Salt Concentration, and Shear. <i>Macromolecules</i> , 2020, 53, 10972-10980.	4.8	4
52	Transmission X-ray scattering as a probe for complex liquid-surface structures. <i>Journal of Synchrotron Radiation</i> , 2016, 23, 519-531.	2.4	4
53	X-ray-induced thinning of ³ He and ³ He/ ⁴ He mixture films. <i>Physical Review B</i> , 2000, 62, 9641-9647.	3.2	2
54	Influence of the Nature of Aliphatic Hydrophobic Physical Crosslinks on Water Crystallization in Copolymer Hydrogels. <i>Journal of Physical Chemistry B</i> , 2022, 126, 5544-5554.	2.6	1