Minoru T Miyahara

List of Publications by Citations

98 papers	2,734 citations	28 h-index	50 g-index
105 ext. papers	3,018 ext. citations	4.2 avg, IF	5.05 L-index

#	Paper	IF	Citations
98	Nano Bubbles on a Hydrophobic Surface in Water Observed by Tapping-Mode Atomic Force Microscopy. *Langmuir*, **2000**, 16, 6377-6380	4	546
97	Attraction between Hydrophobic Surfaces with and without Gas Phase. *Langmuir*, **2000**, 16, 5681-5687	4	178
96	Freezing/melting phenomena for Lennard-Jones methane in slit pores: A Monte Carlo study. *Journal of Chemical Physics*, **1997**, 106, 2865-2880	3.9	169
95	Mechanism for stripe pattern formation on hydrophilic surfaces by using convective self-assembly. *Langmuir*, **2009**, 25, 7287-95	4	112
94	Synthesis and adsorption properties of ZIF-8 nanoparticles using a micromixer. *Chemical Engineering Journal*, **2013**, 227, 145-150	14.7	82
93	Origin of Long-Range Attractive Force between Surfaces Hydrophobized by Surfactant Adsorption. *Langmuir*, **2002**, 18, 5713-5719	4	82
92	Adsorption-Induced Structural Transition of ZIF-8: A Combined Experimental and Simulation Study. *Journal of Physical Chemistry C*, **2014**, 118, 8445-8454	3.8	73
91	Modeling Capillary Condensation in Cylindrical Nanopores:□A Molecular Dynamics Study. *Langmuir*, **2000**, 16, 4293-4299	4	71
90	Synthesis of zeolitic imidazolate framework-8 particles of controlled sizes, shapes, and gate adsorption characteristics using a central collision-type microreactor. *Chemical Engineering Journal*, **2017**, 313, 724-733	14.7	55
89	Determination of adsorption equilibria in pores by molecular dynamics in a unit cell with imaginary gas phase. *Journal of Chemical Physics*, **1997**, 106, 8124-8134	3.9	52
88	Free energy analysis for adsorption-induced lattice transition of flexible coordination framework. *Journal of Chemical Physics*, **2009**, 130, 164707	3.9	51
87	Liquid Drops on Homogeneous and Chemically Heterogeneous Surfaces: A Two-Dimensional Lattice Boltzmann Study. *Langmuir*, **2003**, 19, 9086-9093	4	50
86	Graphene-based ordered framework with a diverse range of carbon polygons formed in zeolite nanochannels. *Carbon*, **2018**, 129, 854-862	10.4	46
85	Spontaneous formation of cluster array of gold particles by convective self-assembly. *Langmuir*, **2012**, 28, 12982-8	4	38
84	Triple point of Lennard-Jones fluid in slit nanopore: solidification of critical condensate. *Journal of Chemical Physics*, **2004**, 120, 6173-9	3.9	37
83	Fabrication of colloidal grid network by two-step convective self-assembly. *Langmuir*, **2011**, 27, 5290-5	4	35
82	Langevin Dynamics Simulations of Cationic Surfactants in Aqueous Solutions Using Potentials of Mean Force. *Langmuir*, **2004**, 20, 2017-2025	4	35

81	Solid–liquid phase transition of Lennard-Jones fluid in slit pores under tensile condition. *Journal of Chemical Physics*, **2000**, 112, 9909-9916	3.9	34
80	Solidification of Lennard-Jones Fluid in Cylindrical Nanopores and Its Geometrical Hindrance Effect: A Monte Carlo Study. *Langmuir*, **2000**, 16, 8529-8535	4	34
79	High-throughput gas separation by flexible metal-organic frameworks with fast gating and thermal management capabilities. *Nature Communications*, **2020**, 11, 3867	17.4	34
78	Simulation study for adsorption-induced structural transition in stacked-layer porous coordination polymers: equilibrium and hysteretic adsorption behaviors. *Journal of Chemical Physics*, **2013**, 138, 054708	3.9	33
77	Coordination and reduction processes in the synthesis of dendrimer-encapsulated Pt nanoparticles. *Langmuir*, **2010**, 26, 2339-45	4	33
76	Energy-saving drying technology for porous media using liquefied DME gas. *Adsorption*, **2008**, 14, 467-472	3.6	33
75	Intrinsic Thermal Management Capabilities of Flexible Metal-Organic Frameworks for Carbon Dioxide Separation and Capture. *ACS Applied Materials & Interfaces*, **2017**, 9, 41066-41077	9.5	32
74	Understanding gate adsorption behaviour of CO2 on elastic layer-structured metal-organic framework-11. *Dalton Transactions*, **2016**, 45, 4193-202	4.3	30
73	Modeling and Visualization of CO2 Adsorption on Elastic Layer-Structured Metal–Organic Framework-11: Toward a Better Understanding of Gate Adsorption Behavior. *Journal of Physical Chemistry C*, **2015**, 119, 11533-11543	3.8	29
72	Interaction Forces between Colloidal Particles in Alcohol–Water Mixtures Evaluated by Simple Model Simulations. *Langmuir*, **2000**, 16, 3361-3371	4	29
71	Capillary condensation model within nano-scale pores studied with molecular dynamics simulation.. *Journal of Chemical Engineering of Japan*, **1997**, 30, 274-284	0.8	28
70	A Reexamination of Mean Force Potentials for the Methane Pair and the Constituent Ion Pairs of NaCl in Water.. *Journal of Chemical Engineering of Japan*, **2003**, 36, 57-65	0.8	28
69	Verification of the Condensation Model for Cylindrical Nanopores. Analysis of the Nitrogen Isotherm for FSM-16. *Langmuir*, **2000**, 16, 6622-6627	4	28
68	Wetting-induced interaction between rigid nanoparticle and plate: A Monte Carlo study. *Journal of Chemical Physics*, **2002**, 116, 9500-9509	3.9	27
67	Molecular Dynamics Simulations of Surfactant Aggregation on Hydrophilic Walls in Micellar Solutions. *Langmuir*, **1999**, 15, 578-586	4	27
66	Colloidal stripe pattern with controlled periodicity by convective self-assembly with liquid-level manipulation. *ACS Applied Materials & Interfaces*, **2012**, 4, 3184-90	9.5	26
65	Force-driven reversible liquid-gas phase transition mediated by elastic nanosponges. *Nature Communications*, **2019**, 10, 2559	17.4	25
64	Adsorption-induced structural transition of an interpenetrated porous coordination polymer: detailed exploration of free energy profiles. *Langmuir*, **2012**, 28, 5093-100	4	24

63	Adsorption and order formation of colloidal nanoparticles on a substrate: a Brownian dynamics study. *Journal of Chemical Physics*, **2004**, 120, 1524-34	3.9	20
62	Concentration dependence of surface diffusivity of nitrobenzene and benzonitrile in liquid phase adsorption onto an activated carbon.. *Journal of Chemical Engineering of Japan*, **1992**, 25, 408-414	0.8	20
61	Flow Synthesis of Plasmonic Gold Nanoshells via a Microreactor. *Particle and Particle Systems Characterization*, **2015**, 32, 234-242	3.1	19
60	Particulate pattern formation and its morphology control by convective self-assembly. *Advanced Powder Technology*, **2013**, 24, 897-907	4.6	19
59	Correlation of Concentration-dependent Surface Diffusivity in Liquid Phase Adsorption.. *Journal of Chemical Engineering of Japan*, **1993**, 26, 510-516	0.8	19
58	Characterization of mixing performance in a microreactor and its application to the synthesis of porous coordination polymer particles. *Advanced Powder Technology*, **2017**, 28, 3104-3110	4.6	17
57	Sublimation phenomena of Lennard-Jones fluids in slit nanopores. *Journal of Chemical Physics*, **2007** , 126, 054703	3.9	17
56	In situ observation of meniscus shape deformation with colloidal stripe pattern formation in convective self-assembly. *Langmuir*, **2015**, 31, 4121-8	4	16
55	Fluids in nanospaces: molecular simulation studies to find out key mechanisms for engineering. *Adsorption*, **2014**, 20, 213-223	2.6	16
54	Dynamics of order formation by colloidal adsorption onto a substrate studied with Brownian dynamics. *Journal of Chemical Physics*, **2005**, 122, 104704	3.9	15
53	Capillary condensation in mesoporous silica with surface roughness. *Adsorption*, **2013**, 19, 631-641	2.6	14
52	Synthesis and photoluminescence characterization of dendrimer-encapsulated CdS quantum dots. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, **2012**, 411, 12-17	5.1	14
51	Sublimation Phenomena in Slit Nanopores: Lennard-Jones Phase Diagram. *Adsorption*, **2005**, 11, 295-299	2.6	14
50	Reversible pore size control of elastic microporous material by mechanical force. *Chemistry - A European Journal*, **2013**, 19, 13009-16	4.8	13
49	Freezing of Lennard-Jones fluid in cylindrical nanopores under tensile conditions. *Adsorption*, **2007**, 13, 191-195	2.6	13
48	Condensation Model for Cylindrical Nanopores Applied to Realistic Porous Glass Generated by Molecular Simulation. *Langmuir*, **2000**, 16, 6064-6066	4	13
47	Liquid-phase capillary condensation and adsorption isothern. *AICHE Journal*, **1994**, 40, 1549-1557	3.6	13
46	Dependence of adsorption-induced structural transition on framework structure of porous coordination polymers. *Journal of Chemical Physics*, **2014**, 140, 044707	3.9	12

45	Modeling Pt2+ Coordination Process within Poly(amidoamine) Dendrimers for Synthesis of Dendrimer-Encapsulated Pt Nanoparticles. *Industrial & Engineering Chemistry Research*, **2011**, 50, 7332-7337	3.9	12
44	Simple Evaluation Scheme of Adsorbate-Solid Interaction for Nano-Pore Characterization Studied with Monte Carlo Simulation.. *Journal of Chemical Engineering of Japan*, **2000**, 33, 103-112	0.8	12
43	Mechanism of Kinetically Controlled Capillary Condensation in Nanopores: A Combined Experimental and Monte Carlo Approach. *ACS Nano*, **2017**, 11, 269-276	16.7	11
42	Molecular simulation of condensation process of Lennard-Jones fluids confined in nanospace with jungle-gym structure. *Adsorption*, **2008**, 14, 165-170	2.6	11
41	Critical energy barrier for capillary condensation in mesopores: Hysteresis and reversibility. *Journal of Chemical Physics*, **2016**, 144, 164705	3.9	11
40	Determination of phase equilibria in confined systems by open pore cell Monte Carlo method. *Journal of Chemical Physics*, **2013**, 138, 084709	3.9	10
39	Free Energy Analysis for Adsorption-Induced Structural Transition of Colloidal Zeolitic Imidazolate Framework-8 Particles. *Journal of Physical Chemistry C*, **2017**, 121, 20366-20374	3.8	9
38	Capillary Phase Separation in Solvent Dehydration by Hygroscopic Porous Adsorbents.. *Journal of Chemical Engineering of Japan*, **1997**, 30, 683-690	0.8	9
37	Single-Electrode Capacitance and Charged State in Interfacial Region within Nano-Porous Carbon Electrode for Electric Double Layer Capacitor.. *Kagaku Kogaku Ronbunshu*, **1997**, 23, 512-518	0.4	9
36	Flow synthesis of silver nanoshells using a microreactor. *Chemical Engineering Journal*, **2019**, 374, 674-683	14.7	8
35	Flow microreactor synthesis of gold nanoshells and patchy particles. *Advanced Powder Technology*, **2016**, 27, 2335-2341	4.6	8
34	Controlling self-assembled structure of Au nanoparticles by convective self-assembly with liquid-level manipulation. *Advanced Powder Technology*, **2014**, 25, 811-815	4.6	7
33	Comprehensive Modeling of Capillary Condensation in Open-Ended Nanopores: Equilibrium, Metastability, and Spinodal. *Journal of Physical Chemistry C*, **2017**, 121, 26877-26886	3.8	7
32	Interaction Forces between Nanoparticles in Diol–Water Mixtures: A Molecular Dynamics Study with Coarse-Grained Model. *Langmuir*, **2002**, 18, 4171-4178	4	7
31	HEAT TRANSFER IN A CONDUCTIVE-HEATING AGITATED DRYER. *Drying Technology*, **1994**, 12, 299-328	2.6	7
30	In silico synthesis of carbon molecular sieves for high-performance air separation. *Carbon*, **2019**, 141, 626-634	10.4	7
29	Hydrogen Isotope Separation in Carbon Nanopores. *Journal of Chemical Engineering of Japan*, **2011**, 44, 355-363	0.8	6
28	Free energy calculations for adsorption-induced deformation of flexible metal–organic frameworks. *Current Opinion in Chemical Engineering*, **2019**, 24, 19-25	5.4	5

27	Potential theory for gate adsorption on soft porous crystals. *Molecular Simulation*, **2015**, 41, 1329-1338	2	5
26	CHF3□CHClF2 Binary Competitive Adsorption Equilibria in Graphitic Slit Pores: Monte Carlo Simulations and Breakthrough Curve Experiments. *Industrial & Engineering Chemistry Research*, **2018**, 57, 6440-6450	3.9	5
25	CHARACTERISTICS AND BEHAVIOR OF NANOPARTICLES AND ITS DISPERSION SYSTEMS **2008**, 113-176		5
24	On the Convective Self-Assembly of Colloidal Particles in Nanofluid Based on in Situ Measurements of Interaction Forces. *Langmuir*, **2019**, 35, 11533-11541	4	4
23	Order formation of colloidal nanoparticles adsorbed on a substrate with friction. *Advanced Powder Technology*, **2010**, 21, 57-63	4.6	4
22	Heat transfer from a submerged tube moving in a granular bed.. *Journal of Chemical Engineering of Japan*, **1988**, 21, 141-147	0.8	4
21	Flow Microreactor Synthesis of Zeolitic Imidazolate Framework (ZIF)@ZIF Core-Shell Metal-Organic Framework Particles and Their Adsorption Properties. *Langmuir*, **2021**, 37, 3858-3867	4	3
20	What is the Smallest Atom as a Probe for Characterizing Nanostructures?. *Journal of Physical Chemistry C*, **2018**, 122, 15446-15455	3.8	2
19	Flow Synthetic Process of SiO2@Au Core-Shell Nanoparticles by Using Microreactor. *Journal of the Society of Powder Technology, Japan*, **2013**, 50, 478-484	0.3	2
18	Triple Point of a Lennard-Jones Fluid in Nanopores with Zero Excess Pore Wall Energy. *Adsorption Science and Technology*, **2009**, 27, 735-743	3.6	2
17	Multiple Roles of Polyethylenimine during Synthesis of 10 nm Thick Continuous Silver Nanoshells. *Langmuir*, **2020**, 36, 4511-4518	4	2
16	Synthesis and Characterization of Core-Shell Metal-Organic Framework (ZIF-67@ZIF-8) Particles. *Journal of the Society of Powder Technology, Japan*, **2019**, 56, 181-186	0.3	1
15	Diffusion phenomena of propane and propylene in colloidal zeolitic imidazolate Framework-8 particles. *Journal of the Taiwan Institute of Chemical Engineers*, **2018**, 90, 79-84	5.3	1
14	Low-temperature hydrogen-graphite system revisited: Experimental study and Monte Carlo simulation. *Journal of Chemical Physics*, **2019**, 151, 024704	3.9	1
13	Controlling Self-Assembled Structure of Au Nanoparticles by Convective Self-Assembly with Liquid-Level Manipulation. *Journal of the Society of Powder Technology, Japan*, **2012**, 49, 356-361	0.3	1
12	Synthesis of zeolite-templated carbons for methane storage: A molecular simulation study. *Tanso*, **2018**, 2018, 197-203	0.1	1
11	Prediction of Adsorption Rate on Slab with an Adsorption Amount-dependent Diffusion Coefficient. *Kagaku Kogaku Ronbunshu*, **2004**, 30, 243-245	0.4	1
10	Efficiency of Thermal Management Using Phase-Change Material for Nonisothermal Adsorption Process. *Industrial & Engineering Chemistry Research*, **2020**, 59, 14485-14495	3.9	1

9	Slacking of Gate Adsorption Behavior on Metal-Organic Frameworks under an External Force. *ACS Applied Materials & Interfaces*, **2021**, 13, 30213-30223	9.5	1
8	Monolayer Formation of Submicron-sized Colloidal Particles by Drag Coating Convective Self-assembly. *Journal of the Society of Powder Technology, Japan*, **2018**, 55, 582-587	0.3	1
7	Numerical Simulation of Meniscus Shape Evolution in Vertical-Deposition Convective Self-Assembly. *Journal of the Society of Powder Technology, Japan*, **2014**, 51, 355-362	0.3	
6	Single-Electrode Transient Behavior for Electric Double Layer Capacitor Composed of Nano-Porous Carbon Electrode.. *Kagaku Kogaku Ronbunshu*, **1997**, 23, 519-525	0.4	
5	Regular Regime and Drying Characteristic Function of Porous Slab with Surface Resistance for Mass Transfer. *Kagaku Kogaku Ronbunshu*, **2004**, 30, 368-371	0.4	
4	Mechanism of the Self-assembly Process of Colloidal Particles in Nanofluid. *Hosokawa Powder Technology Foundation ANNUAL REPORT*, **2018**, 26, 153-156	0	
3	Synthesis and Characterization of Core-shell Soft MOF Particles. *Hosokawa Powder Technology Foundation ANNUAL REPORT*, **2018**, 26, 183-186	0	
2	Understanding Recognition Property of Isotopologues on Metal-Organic Framework. *Hosokawa Powder Technology Foundation ANNUAL REPORT*, **2015**, 23, 215-217	0	
1	High-performance Gas Separation System Using Gate-type Adsorbents. *Hosokawa Powder Technology Foundation ANNUAL REPORT*, **2021**, 28, 143-147	0	