Masao Iwamatsu

List of Publications by Year
in descending order

42	506	759233 12	713466 21
papers	citations	h-index	g-index

44	44	44	438
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Thermodynamics and hydrodynamics of spontaneous and forced imbibition in conical capillaries: A theoretical study of conical liquid diode. Physics of Fluids, 2022, 34, .	4.0	3
2	Nonclassical Surface Nucleation of 6CB at the Airâ€“Liquid Interface of a 6CB Oil-in-Water Nanoemulsion. Langmuir, 2021, 37, 9588-9596.	3.5	1
3	Free-energy landscapes of intrusion and extrusion of liquid in truncated and inverted truncated conical pores: Implications for the Cassie-Baxter to Wenzel transition. Physical Review E, 2020, 102, 052801.	2.1	6
4	Effect of line tension on axisymmetric nanoscale capillary bridges at the liquid-vapor equilibrium. Physical Review E, 2019, 100, 042802.	2.1	2
5	Four stages of droplet spreading on a spherical substrate and in a spherical cavity: Surface tension versus line tension and viscous dissipation versus frictional dissipation. Physical Review E, 2018, 98, .	2.1	4
6	A generalized Youngâ€™s equation to bridge a gap between the experimentally measured and the theoretically calculated line tensions. Journal of Adhesion Science and Technology, 2018, 32, 2305-2319.	2.6	12
7	Spreading law of non-Newtonian power-law liquids on a spherical substrate by an energy-balance approach. Physical Review E, 2017, 96, 012803.	2.1	3
8	Spreading law on a completely wettable spherical substrate: The energy balance approach. Physical Review E, 2017, 95, 052802.	2.1	6
9	Nucleation and growth of a core-shell composite nucleus by diffusion. Physical Review E, 2017, 95, 042803.	2.1	5
10	Topography- and topology-driven spreading of non-Newtonian power-law liquids on a flat and a spherical substrate. Physical Review E, 2017, 96, 042803.	2.1	2
11	Line tension and morphology of a droplet and a bubble attached to the inner wall of a spherical cavity. Journal of Chemical Physics, 2016, 144, 144704.	3.0	7
12	Size-dependent contact angle and the wetting and drying transition of a droplet adsorbed onto a spherical substrate: Line-tension effect. Physical Review E, 2016, 94, 042803.	2.1	8
13	Free-Energy Barrier of Filling a Spherical Cavity in the Presence of Line Tension: Implication to the Energy Barrier between the Cassie and Wenzel States on a Superhydrophobic Surface with Spherical Cavities. Langmuir, 2016, 32, 9475-9483.	3.5	10
14	Line tension and morphology of a sessile droplet on a spherical substrate. Physical Review E, 2016, 93, 052804.	2.1	10
15	Line-tension-induced scenario of heterogeneous nucleation on a spherical substrate and in a spherical cavity. Journal of Chemical Physics, 2015, 143, 014701.	3.0	20
16	Line-Tension Effects on Heterogeneous Nucleation on a Spherical Substrate and in a Spherical Cavity. Langmuir, 2015, 31, 3861-3868.	3.5	36
17	Nucleation and growth by diffusion under Ostwald-Freundlich boundary condition. Journal of Chemical Physics, 2014, 140, 064702.	3.0	8
18	The characterization of wettability of substrates by liquid nanodrops. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2013, 420, 109-114.	4.7	1

#	Article	IF	Citations
19	Characterizing the nucleation flux of linked-flux model for core-shell composite nucleus. , 2013, , .		0
20	A note on the nucleation with multiple steps: Parallel and series nucleation. Journal of Chemical Physics, 2012, 136, 044701.	3.0	7
21	Nucleation pathway of core-shell composite nucleus in size and composition space and in component space. Physical Review E, 2012, 86, 041604.	2.1	6
22	Steady-state nucleation rate and flux of composite nucleus at saddle point. Journal of Chemical Physics, 2012, 136, 204702.	3.0	10
23	Free-energy landscape of nucleation with an intermediate metastable phase studied using capillarity approximation. Journal of Chemical Physics, 2011, 134, 164508.	3.0	20
24	Heterogeneous critical nucleation on a completely wettable substrate. Journal of Chemical Physics, 2011, 134, 234709.	3.0	19
25	Stability of critical bubble in stretched fluid of square-gradient density-functional model with triple-parabolic free energy. Journal of Chemical Physics, 2010, 133, 044706.	3.0	2
26	Cell dynamics modeling of phase transformation and metastable phase formation. Journal of Alloys and Compounds, 2010, 504, S538-S542.	5.5	3
27	Minimum free-energy path of homogenous nucleation from the phase-field equation. Journal of Chemical Physics, 2009, 130, 244507.	3.0	18
28	Critical cavity in the stretched fluid studied using square-gradient density-functional model with triple-parabolic free energy. Journal of Chemical Physics, 2009, 130, 164512.	3.0	10
29	Scaling properties of critical bubble of homogeneous nucleation in stretched fluid of square-gradient density-functional model with triple-parabolic free energy. Journal of Chemical Physics, 2008, 129, 104508.	3.0	11
30	Direct numerical simulation of homogeneous nucleation and growth in a phase-field model using cell dynamics method. Journal of Chemical Physics, 2008, 128, 084504.	3.0	18
31	Scenarios of heterogeneous nucleation and growth studied by cell dynamics simulation. Journal of Chemical Physics, 2007, 126, 134703.	3.0	13
32	Cell Dynamics Simulation of Droplet and Bridge Formation within Striped Nanocapillaries. Langmuir, 2007, 23, 11051-11057.	3.5	3
33	Dynamics of condensation of wetting layer in time-dependent Ginzburgâ€“Landau model. Journal of Colloid and Interface Science, 2007, 316, 1012-1016.	9.4	1
34	The validity of Cassie's law: A simple exercise using a simplified model. Journal of Colloid and Interface Science, 2006, 294, 176-181.	9.4	16
35	Contact angle hysteresis of cylindrical drops on chemically heterogeneous striped surfaces. Journal of Colloid and Interface Science, 2006, 297, 772-777.	9.4	39
36	Cell Dynamics Simulation of Kolmogorovâ€“Johnsonâ€“Mehlâ€“Avrami Kinetics of Phase Transformation. Japanese Journal of Applied Physics, 2005, 44, 6688-6694.	1.5	10

#	Article	IF	Citations
37	Structural optimization of model colloidal clusters at the airâ€“water interface using genetic algorithms. Journal of Colloid and Interface Science, 2003, 260, 305-311.	9.4	1
38	GLOBAL CONFORMATION OPTIMIZATION OF MIXED CLUSTERS USING A GENETIC ALGORITHM. International Journal of Modern Physics C, 2002, 13, 279-295.	1.7	9
39	Classical coarsening theory in heteroepitaxial systems. Journal of Applied Physics, 1999, 86, 5541-5548.	2.5	13
40	A Simple Model of Wetting, Prewetting, and Layering Transitions of Structured Liquids. Journal of Colloid and Interface Science, 1998, 199, 177-186.	9.4	6
41	Capillary Condensation and Adhesion of Two Wetter Surfaces. Journal of Colloid and Interface Science, 1996, 182, 400-406.	9.4	114
42	Jones Zone of Group V Semimetals As and Sb. Journal of the Physical Society of Japan, 1980, 48, 479-489.	1.6	7