

# Masahiro Ohshima

## List of Publications by Citations

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115  
papers

3,276  
citations

35  
h-index

53  
g-index

118  
ext. papers

3,647  
ext. citations

3.3  
avg, IF

5.33  
L-index

#	Paper	IF	Citations
115	Biaxial Flow-Induced Alignment of Silicate Layers in Polypropylene/Clay Nanocomposite Foam. <i>Nano Letters</i> , <b>2001</b> , 1, 503-505	11.5	249
114	Foam processing and cellular structure of polypropylene/clay nanocomposites. <i>Polymer Engineering and Science</i> , <b>2002</b> , 42, 1907-1918	2.3	216
113	Crystallization kinetics of poly(L-lactide) in contact with pressurized CO <sub>2</sub> . <i>Polymer Engineering and Science</i> , <b>2004</b> , 44, 186-196	2.3	127
112	Effect of Growing Crystalline Phase on Bubble Nucleation in Poly(L-Lactide)/CO <sub>2</sub> Batch Foaming. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2011</b> , 50, 3247-3252	3.9	112
111	Measurement and prediction of diffusion coefficients of supercritical CO <sub>2</sub> in molten polymers. <i>Polymer Engineering and Science</i> , <b>2004</b> , 44, 1915-1924	2.3	106
110	Effects of CO <sub>2</sub> on crystallization kinetics of polypropylene. <i>Polymer Engineering and Science</i> , <b>2001</b> , 41, 1938-1946	2.3	85
109	A Microcellular Foaming Simulation System with a High Pressure-Drop Rate. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2006</b> , 45, 6153-6161	3.9	84
108	Quality control of polymer production processes. <i>Journal of Process Control</i> , <b>2000</b> , 10, 135-148	3.9	84
107	Visual Observations of Batch and Continuous Foaming Processes. <i>Journal of Cellular Plastics</i> , <b>2003</b> , 39, 155-169	1.5	73
106	Industrial application of a nonlinear model predictive control to polymerization reactors. <i>Control Engineering Practice</i> , <b>2001</b> , 9, 819-828	3.9	71
105	Nanocellular Foams of PS/PMMA Polymer Blends. <i>Macromolecular Materials and Engineering</i> , <b>2008</b> , 293, 78-82	3.9	69
104	Effects of hydrophobic-modified cellulose nanofibers (CNFs) on cell morphology and mechanical properties of high void fraction polypropylene nanocomposite foams. <i>Composites Part A: Applied Science and Manufacturing</i> , <b>2017</b> , 98, 166-173	8.4	63
103	Unprecedented Development of Ultrahigh Expansion Injection-Molded Polypropylene Foams by Introducing Hydrophobic-Modified Cellulose Nanofibers. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 9250-9254	9.5	60
102	Measurement and prediction of LDPE/CO <sub>2</sub> solution viscosity. <i>Polymer Engineering and Science</i> , <b>2002</b> , 42, 2234-2245	2.3	60
101	Preparation of a unique microporous structure via two step phase separation in the course of drying a ternary polymer solution. <i>Langmuir</i> , <b>2007</b> , 23, 12397-405	4	57
100	Open Cell Microcellular Foams of Polylactic Acid (PLA)-based Blends with Semi-Interpenetrating Polymer Networks. <i>Macromolecular Materials and Engineering</i> , <b>2011</b> , 296, 770-777	3.9	54
99	Nanoscale Cellular Foams from a Poly(propylene)-Rubber Blend. <i>Macromolecular Materials and Engineering</i> , <b>2008</b> , 293, 991-998	3.9	53

98	Bubble coalescence in foaming process of polymers. <i>Polymer Engineering and Science</i> , <b>2006</b> , 46, 680-690	2.3	53
97	Visual observation and numerical studies of N <sub>2</sub> vs. CO <sub>2</sub> foaming behavior in core-back foam injection molding. <i>Polymer Engineering and Science</i> , <b>2012</b> , 52, 875-883	2.3	52
96	Solubility of carbon dioxide in polyethylene/titanium dioxide composite under high pressure and temperature. <i>Journal of Applied Polymer Science</i> , <b>2002</b> , 86, 282-288	2.9	52
95	Preparation of micro/nanocellular polypropylene foam with crystal nucleating agents. <i>Polymer Engineering and Science</i> , <b>2014</b> , 54, 2075-2085	2.3	51
94	Control of Bubble Size and Location in Nano-/Microscale Cellular Poly(propylene)/Rubber Blend Foams. <i>Macromolecular Materials and Engineering</i> , <b>2008</b> , 293, 574-580	3.9	51
93	Fabrication of lightweight microcellular foams in injection-molded polypropylene using the synergy of long-chain branches and crystal nucleating agents. <i>Polymer</i> , <b>2017</b> , 128, 119-127	3.9	49
92	Visual observation and numerical studies of polymer foaming behavior of polypropylene/carbon dioxide system in a core-back injection molding process. <i>Polymer Engineering and Science</i> , <b>2011</b> , 51, 1617-1625	2.3	49
91	Effect of CO <sub>2</sub> on crystallization kinetics of poly(ethylene terephthalate). <i>Polymer Engineering and Science</i> , <b>2003</b> , 43, 479-489	2.3	48
90	Rapid Production of Ultralow Dielectric Constant Porous Polyimide Films via CO <sub>2</sub> -tert-Amine Zwitterion-Induced Phase Separation and Subsequent Photopolymerization. <i>Macromolecules</i> , <b>2013</b> , 46, 2275-2281	5.5	47
89	Preparation of porous poly(L-lactic acid) honeycomb monolith structure by phase separation and unidirectional freezing. <i>Langmuir</i> , <b>2009</b> , 25, 5304-12	4	45
88	Fabrication of High Expansion Microcellular Injection-Molded Polypropylene Foams by Adding Long-Chain Branches. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2016</b> , 55, 11970-11982	3.9	44
87	Nanocellular foams cell structure difference between immiscible and miscible PEEK/PEI polymer blends. <i>Polymer Engineering and Science</i> , <b>2010</b> , 50, 2408-2416	2.3	42
86	Polymeric Foaming Simulation for Extrusion Processes. <i>Journal of Cellular Plastics</i> , <b>2001</b> , 37, 517-536	1.5	38
85	Effect of Oxygen Inhibition on the Kinetic Constants of the UV-Radical Photopolymerization of Diurethane Dimethacrylate/Photoinitiator Systems. <i>Macromolecules</i> , <b>2014</b> , 47, 1906-1913	5.5	37
84	Optimal grade transition control for polymerization reactors. <i>Computers and Chemical Engineering</i> , <b>2000</b> , 24, 1555-1561	4	37
83	Preparation of microcellular thermoplastic elastomer foams from polystyrene-b-ethylene-butylene-b-polystyrene (SEBS) and their blends with polystyrene. <i>Journal of Applied Polymer Science</i> , <b>2013</b> , 128, 2245-2254	2.9	35
82	CO <sub>2</sub> -Induced Mechanical Reinforcement of Polyolefin-Based Nanocellular Foams. <i>Macromolecular Materials and Engineering</i> , <b>2011</b> , 296, 1046-1054	3.9	35
81	Honeycomb Monolith-Structured Silica with Highly Ordered, Three-Dimensionally Interconnected Macroporous Walls. <i>Chemistry of Materials</i> , <b>2009</b> , 21, 3476-3478	9.6	35

80	Thermally expandable microcapsules for polymer foaming Relationship between expandability and viscoelasticity. <i>Polymer Engineering and Science</i> , <b>2010</b> , 50, 835-842	2.3	34
79	Preparation of Nanowells on a PS-b-PMMA Copolymer Thin Film by CO <sub>2</sub> Treatment. <i>Macromolecular Materials and Engineering</i> , <b>2008</b> , 293, 589-597	3.9	30
78	Polypropylene-dispersed domain as potential nucleating agent in PS and PMMA solid-state foaming. <i>Journal of Applied Polymer Science</i> , <b>2011</b> , 119, 1042-1051	2.9	27
77	Supercritical carbon dioxide assisted electroless plating on thermoplastic polymers. <i>Journal of Supercritical Fluids</i> , <b>2009</b> , 49, 265-270	4.2	26
76	A new microcellular foam injection-molding technology using non-supercritical fluid physical blowing agents. <i>Polymer Engineering and Science</i> , <b>2017</b> , 57, 105-113	2.3	24
75	Quality inferential control of an industrial high density polyethylene process. <i>Journal of Process Control</i> , <b>1999</b> , 9, 51-59	3.9	24
74	In situ preparation of cross-linked polystyrene/poly(methyl methacrylate) blend foams with a bimodal cellular structure. <i>Polymers for Advanced Technologies</i> , <b>2012</b> , 23, 1350-1356	3.2	23
73	Supercritical CO <sub>2</sub> -assisted embossing for studying cell behaviour on microtextured surfaces. <i>Biomaterials</i> , <b>2008</b> , 29, 4494-500	15.6	23
72	Electroless nickel plating on polypropylene via hydrophilic modification and supercritical carbon dioxide Pd-complex infusion. <i>Journal of Supercritical Fluids</i> , <b>2012</b> , 69, 117-123	4.2	22
71	The effect of interfacial miscibility on the cell morphology of polyethylene terephthalate/bisphenol a polycarbonate blend foams. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , <b>2012</b> , 50, 1173-1180	2.6	22
70	Periodic porous stripe patterning in a polymer blend film induced by phase separation during spin-casting. <i>Langmuir</i> , <b>2008</b> , 24, 8898-903	4	22
69	In-line monitoring of polyethylene density using near infrared (NIR) spectroscopy. <i>Polymer Engineering and Science</i> , <b>2000</b> , 40, 1107-1113	2.3	22
68	Numerical simulation of a polypropylene foam bead expansion process. <i>Polymer Engineering and Science</i> , <b>2008</b> , 48, 107-115	2.3	21
67	Environmentally benign electroless nickel plating using supercritical carbon-dioxide on hydrophilically modified acrylonitrileButadieneStyrene. <i>Applied Surface Science</i> , <b>2014</b> , 311, 189-200	6.7	20
66	A new technique for foaming submicron size poly(methyl methacrylate) particles. <i>Journal of Applied Polymer Science</i> , <b>2007</b> , 106, 2825-2830	2.9	20
65	Development of a Simplified Foam Injection Molding Technique and Its Application to the Production of High Void Fraction Polypropylene Foams. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2017</b> , 56, 13734-13742	3.9	19
64	Evolution of cellular morphologies and crystalline structures in high-expansion isotactic polypropylene/cellulose nanofiber nanocomposite foams.. <i>RSC Advances</i> , <b>2018</b> , 8, 15405-15416	3.7	19
63	Preparation of porous honeycomb monolith from UV-curable monomer/dioxane solution via unidirectional freezing and UV irradiation. <i>Journal of Applied Polymer Science</i> , <b>2012</b> , 125, 2874-2881	2.9	19

62	Density measurement of polymer/CO <sub>2</sub> single-phase solution at high temperature and pressure using a gravimetric method. <i>Journal of Applied Polymer Science</i> , <b>2007</b> , 105, 3060-3068	2.9	19
61	On-line NIR sensing of CO <sub>2</sub> concentration for polymer extrusion foaming processes. <i>Polymer Engineering and Science</i> , <b>2000</b> , 40, 1843-1849	2.3	19
60	Fabrication of carbon-core/TiO <sub>2</sub> -sheath nanofibers by carbonization of poly(vinyl alcohol)/TiO <sub>2</sub> composite nanofibers prepared via electrospinning and an interfacial sol-gel reaction. <i>Materials Letters</i> , <b>2011</b> , 65, 3027-3029	3.3	18
59	Preparation of highly dispersed expanded graphite/polypropylene nanocomposites via low temperature processing. <i>Journal of Applied Polymer Science</i> , <b>2013</b> , 130, 1834-1839	2.9	17
58	Phase behavior of crosslinked polyisoprene rubber and supercritical carbon dioxide. <i>Journal of Supercritical Fluids</i> , <b>2005</b> , 35, 175-181	4.2	17
57	Unusual Fabrication of Lightweight Injection-Molded Polypropylene Foams by Using Air as the Novel Foaming Agent. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2018</b> , 57, 3800-3804	3.9	16
56	Supercritical carbon dioxide-assisted electroless nickel plating on polypropylene: The effect of copolymer blend morphology on metal-polymer adhesion. <i>Journal of Supercritical Fluids</i> , <b>2014</b> , 85, 123-134	4.2	16
55	Preparation of highly porous chitin structure through nonsolvent-solvent exchange-induced phase separation and supercritical CO <sub>2</sub> drying. <i>Journal of Supercritical Fluids</i> , <b>2012</b> , 68, 31-38	4.2	16
54	Fabrication of porous carbon nanofibers by phosphate-assisted carbonization of electrospun poly(vinyl alcohol) nanofibers. <i>Materials Research Bulletin</i> , <b>2016</b> , 79, 8-13	5.1	15
53	Acoustic pressure pulses from laser-irradiated suspensions containing gold nanospheres in water: Experimental and theoretical study. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , <b>2013</b> , 430, 51-57	5.1	15
52	Preparation of Microcellular Injection-Molded Foams Using Different Types of Low-Pressure Gases via a New Foam Injection Molding Technology. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2019</b> , 58, 17824-17832	3.9	14
51	Size-dependent effect of gold nanospheres on the acoustic pressure pulses from laser-irradiated suspensions. <i>Advanced Powder Technology</i> , <b>2014</b> , 25, 733-738	4.6	14
50	Fabrication of TiO <sub>2</sub> hollow fibers with surface nanostructure. <i>Materials Research Bulletin</i> , <b>2011</b> , 46, 2328-2332	5.2	14
49	Preparation of a polymeric membrane with a fine porous structure by dry casting. <i>Journal of Applied Polymer Science</i> , <b>2009</b> , 111, 2518-2526	2.9	14
48	Mathematical models and numerical simulations of a thermally expandable microballoon for plastic foaming. <i>Chemical Engineering Science</i> , <b>2013</b> , 104, 220-227	4.4	13
47	Synthesis, release ability and bioactivity evaluation of chitin beads incorporated with curcumin for drug delivery applications. <i>Journal of Microencapsulation</i> , <b>2012</b> , 29, 549-58	3.4	13
46	Strong acid doping for the preparation of conductive polyaniline nanoflowers, nanotubes, and nanofibers. <i>Polymer</i> , <b>2019</b> , 182, 121848	3.9	12
45	Effects of physicochemical properties of particles and medium on acoustic pressure pulses from laser-irradiated suspensions. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , <b>2015</b> , 487, 42-48	5.1	12

44	Preparation of open microcellular polylactic acid foams with a microfibrillar additive using coreback foam injection molding processes. <i>Journal of Cellular Plastics</i> , <b>2018</b> , 54, 765-784	1.5	11
43	Silica nanofiber with hierarchical pore structure templated by a polymer blend nanofiber and surfactant micelle. <i>Materials Research Bulletin</i> , <b>2014</b> , 50, 108-112	5.1	11
42	Adsorption Profiles of Acid Dye Using Synthesized Polyaniline Nanostructure with Different Morphologies. <i>Journal of Chemical Engineering of Japan</i> , <b>2017</b> , 50, 170-177	0.8	10
41	Model predictive control with adaptive disturbance prediction and its application to fatty acid distillation column control. <i>Journal of Process Control</i> , <b>1995</b> , 5, 41-48	3.9	10
40	Visualization of hydrolysis in polylactide using near-infrared hyperspectral imaging and chemometrics. <i>Journal of Applied Polymer Science</i> , <b>2018</b> , 135, 45898	2.9	10
39	Fabrication of Hollow TiO <sub>2</sub> Fibers Templated by Electrospun Aqueous Poly(ethylene oxide) (PEO) Solution. <i>Chemistry Letters</i> , <b>2009</b> , 38, 258-259	1.7	9
38	Study oil/water separation property of PE foam and its improvement by in situ synthesis of zeoliticimidazolate framework (ZIF-8). <i>Polymer Engineering and Science</i> , <b>2019</b> , 59, 1354-1361	2.3	8
37	Oxygen concentration and conversion distributions in a layer-by-layer UV-cured film used as a simplified model of a 3D UV inkjet printing system. <i>Chemical Engineering Science</i> , <b>2017</b> , 158, 569-579	4.4	7
36	Novel preparation of self-assembled HCl-doped polyaniline nanotubes using compressed CO <sub>2</sub> -assisted polymerization. <i>Polymer</i> , <b>2018</b> , 156, 71-75	3.9	7
35	Near-Infrared Spectroscopic Evaluation of the Water Content of Molded Polylactide under the Effect of Crystallization. <i>Applied Spectroscopy</i> , <b>2017</b> , 71, 1300-1309	3.1	6
34	Open-cell foams of polyethylene terephthalate/bisphenol a polycarbonate blend. <i>Polymer Engineering and Science</i> , <b>2015</b> , 55, 375-385	2.3	6
33	Influence of polyethylene disperse domain on cell morphology of polystyrene-based blend foams. <i>Journal of Cellular Plastics</i> , <b>2014</b> , 50, 241-261	1.5	6
32	Preparation of a unique, multihollow-core honeycomb structure via the unidirectional freezing of a binary solvent system. <i>Journal of Applied Polymer Science</i> , <b>2013</b> , 130, 526-534	2.9	5
31	On-line inference of tube-wall temperature in an industrial olefin pyrolysis plant. <i>Journal of Process Control</i> , <b>1996</b> , 6, 309-315	3.9	5
30	Effect of crosslinking points on bubble nucleation in the microcellular foaming of thermosets. <i>Polymer</i> , <b>2021</b> , 216, 123414	3.9	5
29	A comparative study on thermomechanical and rheological characteristics of graphite/polypropylene nanocomposites: Highlighting the role of mixing. <i>Journal of Vinyl and Additive Technology</i> , <b>2015</b> , 21, 12-17	2	4
28	Control and design problems in material processing flow can process systems engineers contribute to material processing?. <i>Journal of Process Control</i> , <b>2003</b> , 13, 599-605	3.9	4
27	Model predictive control. Some new results on stability and a tuning guideline for SISO systems.. <i>Kagaku Kogaku Ronbunshu</i> , <b>1990</b> , 16, 83-91	0.4	3

26	Robust stability of model predictive control.. <i>Kagaku Kogaku Ronbunshu</i> , <b>1988</b> , 14, 517-524	0.4	3
25	Promoted formation of stereocomplex in enantiomeric poly(lactic acid)s induced by cellulose nanofibers. <i>Carbohydrate Polymers</i> , <b>2022</b> , 276, 118800	10.3	3
24	New evaluation method for the curing degree of rubber and its nanocomposites using ATR-FTIR spectroscopy. <i>Polymer Testing</i> , <b>2021</b> , 93, 106993	4.5	3
23	Fabrication of ICG Dye-containing Particles by Growth of Polymer/Salt Aggregates and Measurement of Photoacoustic Signals. <i>Chemistry Letters</i> , <b>2014</b> , 43, 495-497	1.7	2
22	Optimal Blending Operation at Polymer Silos.. <i>Kagaku Kogaku Ronbunshu</i> , <b>1997</b> , 23, 384-390	0.4	2
21	Profile control of plastic sheet in an industrial polymer processing process. <i>Polymer Engineering and Science</i> , <b>1998</b> , 38, 1740-1750	2.3	2
20	A study of Model Predictive Control in terms of its structure and degree of freedom.. <i>Kagaku Kogaku Ronbunshu</i> , <b>1987</b> , 13, 71-77	0.4	2
19	Measurement and Prediction of CO <sub>2</sub> -induced Viscosity Reduction of Polypropylene.. <i>Kagaku Kogaku Ronbunshu</i> , <b>2002</b> , 28, 739-745	0.4	2
18	Microstructure, mechanical and electrical characterizations of bimodal and nanocellular polypropylene/graphene nanoplatelet composite foams. <i>Materials Today Communications</i> , <b>2020</b> , 25, 101447	2.5	2
17	Highly Ordered Nanocellular Polymeric Foams Generated by UV-Induced Chemical Foaming. <i>ACS Macro Letters</i> , <b>2020</b> , 9, 1433-1438	6.6	2
16	Development and Optimization of UV-Induced Chemical Foaming Process. <i>Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi]</i> , <b>2019</b> , 32, 693-698	0.7	2
15	Reinforcement of polypropylene by cellulose microfibers modified with polydopamine and octadecylamine. <i>Journal of Applied Polymer Science</i> , <b>2021</b> , 138, 49851	2.9	2
14	Development of a Photocatalytic Microreactor with Separated Oxidation/Reduction Channels. <i>Journal of Chemical Engineering of Japan</i> , <b>2017</b> , 50, 268-272	0.8	1
13	Modeling and Control of a Nonlinear Process Based on the Extended Self-Organizing Map Network. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2002</b> , 41, 2941-2947	3.9	1
12	Process Systems Engineering. Application of On-Line Inference System Based on Physical and PLS models to Tube-Wall Temperature Estimation of an Olefin Pyrolysis Plant.. <i>Kagaku Kogaku Ronbunshu</i> , <b>1996</b> , 22, 1130-1137	0.4	1
11	Self-Assembly of Temperature Sensitive Additives in Polypropylene Melt and Its Influence on Viscoelasticity. <i>Industrial &amp; Engineering Chemistry Research</i> ,	3.9	1
10	Synthesis of Photocleavable Block Copolymers for UV Induced Foaming. <i>Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi]</i> , <b>2018</b> , 31, 647-650	0.7	1
9	Influence of different molecular weights of polyhexene-1 on the morphology and rheology of cyclic olefin copolymer blends. <i>Polymer Engineering and Science</i> , <b>2021</b> , 61, 1485-1501	2.3	0

8	High-performance thermal insulator based on polymer foam and silica xerogel. <i>Polymer Engineering and Science</i> , <b>2022</b> , 62, 637-647	2.3	0
7	Chemical engineering in Japan. <i>AIChE Journal</i> , <b>2012</b> , 58, 1968-1978	3.6	
6	Lactide Bubble Nucleation Rate Model for Degassing in Polylactic Acid Synthesis. <i>Journal of Chemical Engineering of Japan</i> , <b>2010</b> , 43, 275-284	0.8	
5	A Practical Method for Removing Ill-Conditioning in Industrial Constrained Predictive Control.. <i>Kagaku Kogaku Ronbunshu</i> , <b>1998</b> , 24, 24-29	0.4	
4	Multirate Multivariable Model Predictive Control Design.. <i>Kagaku Kogaku Ronbunshu</i> , <b>1994</b> , 20, 240-247	0.4	
3	Model predictive control. Stability conditions of multi-input multi-output system.. <i>Kagaku Kogaku Ronbunshu</i> , <b>1991</b> , 17, 371-379	0.4	
2	Millefeuille-like cellular structures of biopolymer blend foams prepared by the foam injection molding technique. <i>Journal of Applied Polymer Science</i> , 51890	2.9	
1	Direct Self-Assembly for Non-Periodic Designs. <i>Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi]</i> , <b>2016</b> , 29, 709-715	0.7	