Kyu Yong Choi

List of Publications by Year
in descending order

116	2,517	186265	233421
papers	citations	28 h-index	45 g-index

117	117	117	1183
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Polymerization of olefins through heterogeneous catalysis. III. Polymer particle modelling with an analysis of intraparticle heat and mass transfer effects. Journal of Applied Polymer Science, 1986, 32, 2935-2960.	2.6	228
2	The dynamic behaviour of fluidized bed reactors for solid catalysed gas phase olefin polymerization. Chemical Engineering Science, 1985, 40, 2261-2279.	3.8	184
3	Polymerization of olefines through heterogeneous catalysis IV. Modeling of heat and mass transfer resistance in the polymer particle boundary layer. Journal of Applied Polymer Science, 1986, 31, 2231-2265.	2.6	132
4	Calculation of Molecular Weight Distribution from Molecular Weight Moments in Free Radical Polymerization. Industrial & Engineering Chemistry Research, 1997, 36, 1419-1423.	3.7	83
5	Experimental studies on optimal molecular weight distribution control in a batch-free radical polymerization process. Chemical Engineering Science, 1998, 53, 2769-2790.	3.8	78
6	Discrete Optimal Control of Molecular Weight Distribution in a Batch Free Radical Polymerization Process. Industrial & Engineering Chemistry Research, 1997, 36, 3676-3684.	3.7	59
7	Adverse effect of polystyrene microplastics (PS-MPs) on tube formation and viability of human umbilical vein endothelial cells. Food and Chemical Toxicology, 2021, 154, 112356.	3.6	51
8	Multistage melt polymerization of bisphenol-A and diphenyl carbonate to polycarbonate. Journal of Applied Polymer Science, 1993, 49, 747-764.	2.6	47
9	Recent advances in polymer reaction engineering: Modeling and control of polymer properties. Korean Journal of Chemical Engineering, 2004, 21, 147-167.	2.7	47
10	Population balance modeling for a continuous gas phase olefin polymerization reactor. Journal of Applied Polymer Science, 1994, 53, 1589-1597.	2.6	45
11	Modeling of free-radical polymerization of styrene by bifunctional initiators. AICHE Journal, 1987, 33, 2067-2076.	3.6	44
12	Polymerization of olefins through heterogeneous catalysis. II. Kinetics of gas phase propylene polymerization with Zieglerâ€“Natta catalysts. Journal of Applied Polymer Science, 1985, 30, 1065-1081.	2.6	42
13	An experimental study of multiobjective dynamic optimization of a semibatch copolymerization process. Polymer Engineering and Science, 1991, 31, 353-364.	3.1	42
14	Melt polymerization of bisphenol-A and diphenyl carbonate in a semibatch reactor. Journal of Applied Polymer Science, 2001, 80, 1253-1266.	2.6	42
15	Synthesis of zeolite@metalâ€“organic framework coreâ€“shell particles as bifunctional catalysts. RSC Advances, 2014, 4, 30673.	3.6	42
16	Modeling of particle segregation phenomena in a gas phase fluidized bed olefin polymerization reactor. Chemical Engineering Science, 2001, 56, 4069-4083.	3.8	41
17	Kinetics of melt transesterification of diphenyl carbonate and bisphenol A to polycarbonate with lithium hydroxide monohydrate catalyst. Industrial & Engineering Chemistry Research, 1992, 31, 2118-2127.	3.7	40
18	Polymerization of olefins through heterogeneous catalysis, I. Low pressure propylene polymerization in slurry with Zieglerâ€“Natta catalyst. Journal of Applied Polymer Science, 1982, 27, 1691-1706.	2.6	39

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19	The dynamic behavior of continuous stirred-bed reactors for the solid catalyzed gas phase polymerization of propylene. Chemical Engineering Science, 1988, 43, 2587-2604.	3.8	39
20	On-line estimation and control of a continuous stirred tank polymerization reactor. Journal of Process Control, 1991, 1, 96-110.	3.3	39
21	On-Line Parameter Estimation in a Continuous Polymerization Process. Industrial & Engineering Chemistry Research, 1996, 35, 1332-1343.	3.7	38
22	Two-phase model for continuous final stage melt polycondensation of poly(ethylene terephthalate). 1. Steady-state analysis. Industrial & Engineering Chemistry Research, 1991, 30, 2-12.	3.7	37
23	On-line monitoring and control of a batch polymerization reactor. Journal of Process Control, 1996, 6, 119-127.	3.3	36
24	Kinetics of bulk styrene polymerization catalyzed by symmetrical bifunctional initiators. Journal of Applied Polymer Science, 1988, 35, 1547-1562.	2.6	35
25	Syndiotactic Polystyrene Nanofibrils in Silica Nanotube Reactors:â€‰ Understanding of Synthesis with Ultrahigh Molecular Weight. Journal of the American Chemical Society, 2008, 130, 3920-3926.	13.7	32
26	Kinetic Modeling of Ethyleneâ^'Norbornene Copolymerization Using Homogeneous Metallocene Catalysts. Macromolecules, 2003, 36, 4216-4225.	4.8	31
27	Two-phase model for continuous final-stage melt polycondensation of poly(ethylene terephthalate). 2. Analysis of dynamic behavior. Industrial & Engineering Chemistry Research, 1991, 30, 1712-1718.	3.7	30
28	Bulk free radical polymerization of styrene with unsymmetrical bifunctional initiators. Industrial & Engineering Chemistry Research, 1989, 28, 131-138.	3.7	28
29	Melt Polycondensation of Bisphenol A Polycarbonate by a Forced Gas Sweeping Process. Industrial & Engineering Chemistry Research, 2001, 40, 1312-1319.	3.7	28
30	Kinetics of free radical styrene polymerization with the symmetrical bifunctional initiator 2,5-dimethyl-2,5-bis(2-ethyl hexanoyl peroxy) hexane. Polymer, 1992, 33, 4582-4591.	3.8	27
31	Free-radical polymerization of styrene with a binary mixture of symmetrical bifunctional initiators. Journal of Applied Polymer Science, 1992, 46, 1353-1367.	2.6	26
32	Melt Polycondensation of Bisphenol A Polycarbonate by Forced Gas Sweeping Process II. Continuous Rotating-Disk Reactor. Industrial & Engineering Chemistry Research, 2001, 40, 3459-3466.	3.7	26
33	Modeling of free radical polymerization of styrene catalyzed by unsymmetrical bifunctional initiators. Chemical Engineering Science, 1989, 44, 297-312.	3.8	25
34	Melt polycondensation of poly(ethylene terephthalate) in a rotating disk reactor. Journal of Applied Polymer Science, 1995, 58, 1473-1483.	2.6	25
35	Optimal state estimation in the transesterification stage of a continuous polyethylene terephthalate condensation polymerization process. Chemical Engineering Science, 1988, 43, 749-762.	3.8	24
36	Dynamics of a cascade of two continuous stirred tank polymerization reactors with a binary initiator mixture. Polymer Engineering and Science, 1991, 31, 333-352.	3.1	24

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37	Dynamics of a CSTR for styrene polymerization initiated by a binary initiator system. Polymer Engineering and Science, 1990, 30, 279-290.	3.1	22
38	Polymerization rate modeling of ethylene polymerization with supported chromium oxide catalysts. Journal of Applied Polymer Science, 2004, 91, 2923-2927.	2.6	20
39	Modeling of Solid-State Polymerization of Bisphenol A Polycarbonate. Industrial & Engineering Chemistry Research, 2005, 44, 2494-2505.	3.7	20
40	Rate and molecular weight distribution modeling of syndiospecific styrene polymerization over silica-supported metallocene catalyst. Polymer, 2007, 48, 6519-6531.	3.8	20
41	Steady state behavior of a continuous stirred tank reactor for styrene polymerization with bifunctional free radical initiators. Chemical Engineering Science, 1988, 43, 965-977.	3.8	19
42	Calculation of molecular weight distribution in a batch thermal polymerization of styrene. Macromolecular Theory and Simulations, 1998, 7, 327-332.	1.4	19
43	Multiobjective dynamic optimization of batch free radical polymerization process catalyzed by mixed initiator systems. Journal of Applied Polymer Science, 1992, 44, 1759-1778.	2.6	18
44	Miniemulsion Copolymerization of Ethylene and Vinyl Acetate. Macromolecular Reaction Engineering, 2009, 3, 412-418.	1.5	18
45	Analysis of steady state of free radical solution polymerization in a continuous stirred tank reactor. Polymer Engineering and Science, 1986, 26, 975-981.	3.1	17
46	Kinetics of melt transesterification of dimethyl terephthalate with bis(2-hydroxyethyl) terephthalate in the synthesis of poly(ethylene terephthalate). Industrial & Engineering Chemistry Research, 1992, 31, 769-777.	3.7	17
47	Kinetics of Styrene Polymerization to Syndiotactic Polystyrene over Metallocene Catalyst on Flat Surface, Silica Nanotube Reactors and Porous Silica Particles. Macromolecules, 2011, 44, 1385-1392.	4.8	17
48	In-line dielectric monitoring of monomer conversion in a batch polymerization reactor. Journal of Applied Polymer Science, 1995, 55, 1361-1365.	2.6	16
49	UltraHigh Molecular Weight Nonlinear Polycarbonates Synthesized in Microlayers. Industrial & Engineering Chemistry Research, 2013, 52, 17419-17431.	3.7	16
50	Dynamics of a continuous stirred tank reactor for styrene polymerization initiated by a binary initiator mixture. II: Effect of viscosity dependent heat transfer coefficient. Polymer Engineering and Science, 1992, 32, 494-505.	3.1	15
51	Polymerization of styrene in a continuous filled tubular reactor. Polymer Engineering and Science, 1996, 36, 65-77.	3.1	15
52	Kinetics of slurry phase polymerization of styrene to syndiotactic polystyrene with pentamethyl cyclopentadienyl titanium trimethoxide and methyl aluminoxane. I. Reaction rate analysis. Journal of Applied Polymer Science, 2003, 88, 2132-2137.	2.6	15
53	Step-Growth Polymerization. , 0, , 273-314.		15
54	Effect of initiator characteristics on high-pressure ethylene polymerization in autoclave reactors. Industrial & Engineering Chemistry Research, 1994, 33, 211-217.	3.7	14

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55	Modeling of Ethylene Polymerization Kinetics over Supported Chromium Oxide Catalysts. Macromolecular Theory and Simulations, 2004, 13, 169-177.	1.4	14
56	Nascent morphology of syndiotactic polystyrene synthesized over silica-supported metallocene catalyst. Polymer, 2008, 49, 4141-4149.	3.8	14
57	Continuous olefin copolymerization with soluble Ziegler-Natta catalysts. AICHE Journal, 1991, 37, 1255-1260.	3.6	13
58	A study on the polymer layer-forming phenomena in a rotating disk polycondensation reactor. Journal of Applied Polymer Science, 1995, 55, 1819-1826.	2.6	13
59	Control of molecular weight distribution and tensile strength in a free radical styrene polymerization process. Journal of Applied Polymer Science, 1998, 70, 1017-1026.	2.6	12
60	Control of copolymer hydrodynamic volume distribution in a semibatch free radical copolymerization process. Computers and Chemical Engineering, 1999, 23, 1153-1165.	3.8	12
61	Physical transitions and nascent morphology of syndiotactic polystyrene in slurry polymerization with embedded Cp*Ti(OMe)3/methyl aluminoxane catalyst. Polymer, 2005, 46, 5032-5039.	3.8	12
62	Liquid-liquid equilibria for water+2,3-butanediol+1-pentanol ternary system at different temperatures of 298.2, 308.2, and 318.2 K. Korean Journal of Chemical Engineering, 2018, 35, 1328-1334.	2.7	12
63	Modeling of a continuous rotating disk polycondensation reactor for the synthesis of thermoplastic polyesters. Journal of Applied Polymer Science, 1996, 61, 763-773.	2.6	11
64	Estimation of Kinetic Parameters in Transition-Metal-Catalyzed Gas-Phase Olefin Copolymerization Processes. Industrial & Engineering Chemistry Research, 1997, 36, 1095-1102.	3.7	11
65	Structure and properties of ultraâ€high molecular weight bisphenol a polycarbonate synthesized by solidâ€state polymerization in amorphous microlayers. Journal of Applied Polymer Science, 2015, 132, .	2.6	11
66	Liquidâ€“Liquid Equilibrium Measurements for the Ternary System of Water/2,3-Butanediol/4-Methyl-2-pentanol at Various Temperatures. Journal of Chemical & Engineering Data, 2019, 64, 3882-3888.	1.9	11
67	Modeling of Ethylene-Norbornene Copolymer Microstructure in Solution Polymerization with Homogeneous Metallocene Catalysts. Macromolecular Materials and Engineering, 2005, 290, 353-362.	3.6	10
68	Kinetics and Growth of Polyethylene Nanofibrils over Metallocene Catalyst Supported on Flat Silica and Spherical Nanoâ€Silica Particles. Macromolecular Reaction Engineering, 2014, 8, 755-765.	1.5	10
69	Experimental and modeling studies on melt transesterification of dimethyl terephthalate with ethylene glycol in a continuous stirred tank reactor. Industrial & Engineering Chemistry Research, 1993, 32, 800-808.	3.7	9
70	Modeling of a multistage high-pressure ethylene polymerization reactor. Chemical Engineering Science, 1994, 49, 4959-4969.	3.8	9
71	The forced gas sweeping process for semibatch melt polycondensation of poly(ethylene) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 5	2.6	9
72	Modeling and Analysis of Ethylene/Norbornene Copolymerization withansa-Zirconocene/Methylaluminoxane Catalysts in a Continuous Polymerization Reactor. Industrial & Engineering Chemistry Research, 2005, 44, 6496-6503.	3.7	9

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73	Dynamic Modeling of a Moving-Packed-Bed Reactor for the Solid-State Polymerization of Bisphenol-A Polycarbonate. Industrial & Engineering Chemistry Research, 2008, 47, 3687-3699.	3.7	9
74	Two-phase model for continuous final-stage melt polycondensation of poly(ethylene terephthalate). III. Modeling of multiple reactors with multiple reaction zones. Journal of Applied Polymer Science, 2003, 90, 1088-1095.	2.6	8
75	Syndiospecific polymerization of styrene with embedded metallocene catalysts. Macromolecular Symposia, 2004, 206, 375-382.	0.7	8
76	Kinetics of Reversible Oligomerization of l-Lactic Acid with a SnCl2Â·2H2O/p-Toluenesulfonic Acid Catalyst. Industrial & Engineering Chemistry Research, 2012, 51, 16617-16625.	3.7	8
77	Modeling of a Solid-State Polycondensation Process for the Production of PET. Journal of Chemical Engineering of Japan, 2003, 36, 912-925.	0.6	8
78	A Reduced Third Order Markov Model for Ethylene-Norbornene Copolymerization Kinetics with Homogeneous Metallocene Catalysts. Macromolecular Reaction Engineering, 2007, 1, 68-77.	1.5	7
79	Inverse Free Radical Suspension Polymerization as a Potential Means to Encapsulate Biologically Active Materials. Chemical Engineering and Technology, 2010, 33, 1833-1840.	1.5	7
80	Ethylene Polymerization over Metallocene Catalysts Supported on Highly Fibrous Silica Nanoparticles. Macromolecular Reaction Engineering, 2017, 11, 1600027.	1.5	7
81	Polymer particles with a pomegranate-like internal structure via micro-dispersive polymerization in a geometrically confined reaction space I. Experimental study. Polymer, 2011, 52, 942-948.	3.8	6
82	Polymerization of Ethylene over rac-Et(1-indenyl)₂ZrCl₂/MAO Catalyst Supported on Pseudo-Inverse Opal Silica Particles. Industrial & Engineering Chemistry Research, 2012, 51, 9742-9749.	3.7	6
83	Transitions of morphological patterns of crystallizing polycarbonate in thin films. Journal of Applied Polymer Science, 2012, 124, 560-567.	2.6	6
84	Morphologies of microparticles of partially neutralized sodium polyacrylate by inverse suspension polymerization. Polymer Engineering and Science, 2018, 58, 1564-1574.	3.1	6
85	Stability of PS Opals in Supercritical Carbon Dioxide and Synthesis of Silica Inverse Opals. Bulletin of the Korean Chemical Society, 2011, 32, 2178-2182.	1.9	6
86	Optimizing polymer reactivities for the solid-state polycondensation of AA and BB type monomers. Polymer, 2008, 49, 2817-2824.	3.8	5
87	Preparation of Micronâ€Sized Spherulitic Bisphenol A Polycarbonate Particles in Thin Films. Macromolecular Materials and Engineering, 2009, 294, 847-854.	3.6	5
88	Estimation of Initial Conditions of a Prepolymer for a Solidâ€State Stepâ€Growth Polymerization Process. Macromolecular Reaction Engineering, 2010, 4, 613-620.	1.5	5
89	Metallocene Catalyzed Ethylene Polymerization with Specially Designed Catalyst Supports and Reaction Systems. Macromolecular Symposia, 2013, 333, 256-265.	0.7	5
90	Copolymer Hydrodynamic Volume Distribution in a Free Radical Copolymerization Process. Polymer-Plastics Technology and Engineering, 1999, 7, 43-70.	0.7	4

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91	Modeling of Phase Inversion and Particle Stability in the Dispersion Polymerization of Methyl Methacrylate in a Nonâ€polar Hydrocarbon Solvent. Macromolecular Reaction Engineering, 2011, 5, 340-351.	1.5	4
92	Growth of Polyethylene Nanofibrils Over racâ€Et(Indenyl)₂ZrCl₂/MAO Catalyst Supported on Silica Nanotubes. Macromolecular Reaction Engineering, 2015, 9, 570-578.	1.5	4
93	Heterogeneous Catalytic Polymerization of Ethylene in Microtubular Reactor Systems. Chemical Engineering and Technology, 2016, 39, 293-300.	1.5	4
94	Effects of Spatial Distributions of Active Sites in a Silica-Supported Metallocene Catalyst on Particle Fragmentation and Reaction in Gas-Phase Ethylene Polymerization. Macromolecules, 2022, 55, 2444-2455.	4.8	4
95	Optimal control of transient dynamics in a continuous polymerization reactor. , 1997, , .		3
96	Polymerization of methyl methacrylate in the presence of a nonpolar hydrocarbon solvent. I. Construction of a complete ternary phase diagram through an in situ polymerization. Journal of Applied Polymer Science, 2010, 116, 3648-3658.	2.6	3
97	Experimental and theoretical study of the reaction locus during the dispersion polymerization of methyl methacrylate in a nonpolar hydrocarbon solvent at low temperature. Polymer Engineering and Science, 2011, 51, 1969-1986.	3.1	3
98	Fabrication and characterization of titania inverse opals using supercritical carbon dioxide. Journal of Supercritical Fluids, 2012, 67, 71-75.	3.2	3
99	Mathematical Modeling of Polymer Particles with a Pomegranateâ€<scp>L</scp>ike Internal Structure Via Microâ€<scp>D</scp>ispersive Polymerization in a Geometrically Confined Reaction Space. Macromolecular Theory and Simulations, 2014, 23, 110-124.	1.4	3
100	Mathematical Modeling of Free Radical Solution Terpolymerization Reactions in a Batch and Continuous Flow Stirred Tank Reactors. Macromolecular Theory and Simulations, 2021, 30, 2000094.	1.4	3
101	New Developments in Polymer Reaction Engineering. Studies in Surface Science and Catalysis, 2006, , 109-114.	1.5	2
102	Reduction of Bisphenol A Residue in Polycarbonates in a Two-Stage Step-Growth Polymerization Process. Industrial & Engineering Chemistry Research, 2009, 48, 4274-4282.	3.7	2
103	Spherical Pseudoâ€Inverse Opal Silica with Pomegranateâ€Like Polymer Microparticles as Templates. Macromolecular Materials and Engineering, 2012, 297, 1021-1027.	3.6	2
104	Mathematical modeling and analysis of an interfacial polycarbonate polymerization in a continuous multizone tubular reactor. Polymer Engineering and Science, 2018, 58, 438-446.	3.1	2
105	High pressure semibatch emulsion and miniemulsion copolymerization of vinyl acetate and ethylene. Journal of Applied Polymer Science, 2021, 138, 49784.	2.6	2
106	Effect of Intraparticle Mass Transfer on the Catalytic Site Formation in the Preparation of Silicaâ€Supported Metallocene Catalysts. Macromolecular Reaction Engineering, 2021, 15, 2100039.	1.5	2
107	Polymerization of ethylene with embedded metallocene catalysts. Studies in Surface Science and Catalysis, 2006, , 849-852.	1.5	1
108	Silica Nanotube Reactors for Catalytic Polymerization of Styrene and Olefins. Macromolecular Symposia, 2010, 289, 25-32.	0.7	1

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109	Geometrically Constrained Polymerization of Styrene Over Heterogeneous Catalyst Layer in Silica Nanotube Reactors. Polymer Engineering and Science, 2020, 60, 700-709.	3.1	1
110	Sorption and polymerization of methyl isopropenyl ketone in low-density polyethylene. Journal of Applied Polymer Science, 1995, 55, 501-515.	2.6	0
111	Morphological Study of Nascent Growth of Î±â€Olefin Polymers on Spatially Unconstrained Silica Surfaces. Macromolecular Reaction Engineering, 2018, 12, 1800009.	1.5	0
112	Technical Processes for Industrial Production. Plastics Engineering, 2008, , 369-427.	0.1	0
113	Continuous Processes for Radical Vinyl Polymerization. Plastics Engineering, 2008, , 347-368.	0.1	0
114	Estimation and Control of Continuous Stirred Tank Polymerization Reactors. , 1990, , .		0
115	Syndiospecific Styrene Polymerization with Heterogenized Transition Metal Catalysts. , 0, , 140-154.		0
116	Effects of Silica Support Properties on the Performance of Immobilized Metallocene Catalysts for Ethylene Polymerization. Macromolecular Reaction Engineering, 0, , 2200020.	1.5	0