

Hidetaka Tobita

List of Publications by Year in descending order

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116
papers

2,343
citations

185998

28
h-index

276539

41
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133
all docs

133
docs citations

133
times ranked

637
citing authors

#	ARTICLE	IF	CITATIONS
1	Molecular weight distribution in free-radical crosslinking copolymerization. <i>Macromolecules</i> , 1993, 26, 836-841.	2.2	100
2	Molecular weight distribution in free radical polymerization with long-chain branching. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 1993, 31, 1363-1371.	2.4	87
3	Monte Carlo Simulation of Controlled/Living Radical Polymerization in Emulsified Systems. <i>Macromolecular Theory and Simulations</i> , 2007, 16, 476-488.	0.6	87
4	Kinetics of free-radical copolymerization: the pseudo-kinetic rate constant method. <i>Polymer</i> , 1991, 32, 2641-2647.	1.8	81
5	Simultaneous long-chain branching and random scission: I. Monte Carlo simulation. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2001, 39, 391-403.	2.4	78
6	Molecular weight distribution in random branching of polymer chains. <i>Macromolecular Theory and Simulations</i> , 1996, 5, 129-144.	0.6	67
7	Molecular Weight Distribution in Emulsion Polymerization. <i>Macromolecules</i> , 1994, 27, 3804-3811.	2.2	62
8	Crosslinking kinetics in emulsion copolymerization. <i>Macromolecules</i> , 1992, 25, 2671-2678.	2.2	57
9	Network Formation in Emulsion Crosslinking Copolymerization. <i>Macromolecules</i> , 1994, 27, 3389-3396.	2.2	55
10	Molecular Weight Distribution of Living Radical Polymers. <i>Macromolecular Theory and Simulations</i> , 2006, 15, 12-22.	0.6	51
11	Kinetics of Stable Free Radical Mediated Polymerization inside Submicron Particles. <i>Macromolecular Theory and Simulations</i> , 2007, 16, 810-823.	0.6	45
12	Random Degradation of Branched Polymers. 2. Multiple Branches. <i>Macromolecules</i> , 1996, 29, 3010-3021.	2.2	43
13	Kinetics of network formation in free-radical crosslinking copolymerization. <i>Macromolecules</i> , 1993, 26, 5427-5435.	2.2	41
14	Long-chain branching in free-radical polymerization due to chain transfer to polymer. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 1995, 33, 841-853.	2.4	40
15	Random sampling technique to predict the molecular weight distribution in nonlinear polymerization. <i>Macromolecular Theory and Simulations</i> , 1996, 5, 1167-1194.	0.6	39
16	Molecular Weight Distribution of Living Radical Polymers. <i>Macromolecular Theory and Simulations</i> , 2006, 15, 23-31.	0.6	39
17	RAFT Miniemulsion Polymerization Kinetics, 1 $\hat{=}$ Polymerization Rate. <i>Macromolecular Theory and Simulations</i> , 2009, 18, 108-119.	0.6	39
18	Modeling Controlled/Living Radical Polymerization Kinetics: Bulk and Miniemulsion. <i>Macromolecular Reaction Engineering</i> , 2010, 4, 643-662.	0.9	39

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19	Random Degradation of Branched Polymers. 1. Star Polymers. <i>Macromolecules</i> , 1996, 29, 3000-3009.	2.2	37
20	A simulation model for long-chain branching in vinyl acetate polymerization: 2. Continuous polymerization in a stirred tank reactor. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 1994, 32, 911-919.	2.4	35
21	Kinetics of long-chain branching in emulsion polymerization: 1. Chain transfer to polymer. <i>Polymer</i> , 1994, 35, 3023-3031.	1.8	34
22	A simulation model for long-chain branching in vinyl acetate polymerization: 1. Batch polymerization. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 1994, 32, 901-910.	2.4	34
23	Dimensions of branched polymers formed in simultaneous long-chain branching and random scission. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2001, 39, 2960-2968.	2.4	34
24	Kinetics of Long-Chain Branching via Chain Transfer to Polymer: I. Branched Structure. <i>Polymer-Plastics Technology and Engineering</i> , 1993, 1, 357-378.	0.7	33
25	Molecular weight distribution in random crosslinking of polymer chains. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 1995, 33, 1191-1202.	2.4	32
26	RAFT Miniemulsion Polymerization Kinetics, 2 nd Molecular Weight Distribution. <i>Macromolecular Theory and Simulations</i> , 2009, 18, 120-126.	0.6	32
27	Free-Radical Polymerization with Long-Chain Branching and Scission in a Continuous Stirred-Tank Reactor. <i>Macromolecular Reaction Engineering</i> , 2013, 7, 181-192.	0.9	32
28	Simulation model for network formation in free-radical crosslinking copolymerization: Pregelation period. <i>Die Makromolekulare Chemie Theory and Simulations</i> , 1993, 2, 761-776.	1.0	30
29	Random Sampling Technique To Predict the Molecular Weight Distribution in Free-Radical Polymerization That Involves Polyfunctional Chain Transfer Agents. <i>Macromolecules</i> , 1996, 29, 693-704.	2.2	28
30	Branched structure formation in free radical polymerization of vinyl acetate. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 1996, 34, 671-681.	2.4	27
31	Monte Carlo simulation of size exclusion chromatography for randomly branched and crosslinked polymers. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2000, 38, 2009-2018.	2.4	27
32	Experimental Validation of Intermediate Termination in RAFT Polymerization with Dithiobenzoate via Comparison of Miniemulsion and Bulk Polymerization Rates. <i>Macromolecular Reaction Engineering</i> , 2012, 6, 17-23.	0.9	27
33	Simulation model for the molecular weight distribution in emulsion polymerization. <i>Journal of Polymer Science Part A</i> , 1995, 33, 441-453.	2.5	26
34	Monte Carlo simulation of size exclusion chromatography for branched polymers formed through free-radical polymerization with chain transfer to polymer. <i>Macromolecular Theory and Simulations</i> , 2000, 9, 453-462.	0.6	26
35	Fundamental Molecular Weight Distribution of RAFT Polymers. <i>Macromolecular Reaction Engineering</i> , 2008, 2, 371-381.	0.9	26
36	Kinetics of Controlled/Living Radical Polymerization in Emulsified Systems. <i>Macromolecular Symposia</i> , 2008, 261, 36-45.	0.4	26

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37	Continuous Free-Radical Polymerization with Long-Chain Branching and Scission in a Tank-Series Model. <i>Macromolecular Theory and Simulations</i> , 2014, 23, 182-197.	0.6	25
38	R&D Note: On the Calculation of Molecular Weight Distribution from the Moments Using Laguerre Polynomials. <i>Polymer-Plastics Technology and Engineering</i> , 1993, 1, 407-425.	0.7	23
39	Molecular weight distribution in random crosslinking of polymers: Modality of the molecular weight distribution. <i>Macromolecular Theory and Simulations</i> , 1994, 3, 1033-1049.	0.6	23
40	Molecular weight distribution formed through chain-length-dependent crosslinking reactions. <i>Macromolecular Theory and Simulations</i> , 1998, 7, 225-232.	0.6	23
41	Molecular Weight Development during Simultaneous Chain Scission, Long-Chain Branching and Crosslinking, 2. <i>Macromolecular Theory and Simulations</i> , 2003, 12, 32-41.	0.6	23
42	Effects of Fluctuation and Segregation in the Rate Acceleration of ATRP Miniemulsion Polymerization. <i>Macromolecular Theory and Simulations</i> , 2011, 20, 179-190.	0.6	21
43	Structural requirements for gel formation. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 1998, 36, 2015-2018.	2.4	20
44	Experimental Method to Discriminate RAFT Models between Intermediate Termination and Slow Fragmentation via Comparison of Rates of Miniemulsion and Bulk Polymerization. <i>Macromolecular Theory and Simulations</i> , 2014, 23, 136-146.	0.6	20
45	Copolymerization with Chain Transfer Monomer. 2. Molecular Weight Distribution. <i>Macromolecules</i> , 1997, 30, 1693-1700.	2.2	19
46	Markovian Approach to Self-Condensing Vinyl Polymerization: Distributions of Molecular Weights, Degrees of Branching, and Molecular Dimensions. <i>Macromolecular Theory and Simulations</i> , 2015, 24, 117-132.	0.6	19
47	Polyradical distribution in free radical crosslinking of polymer chains. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 1996, 34, 2099-2104.	2.4	18
48	Fundamentals of RAFT Miniemulsion Polymerization Kinetics. <i>Macromolecular Symposia</i> , 2010, 288, 16-24.	0.4	18
49	Molecular weight distribution in nonlinear emulsion polymerization. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 1997, 35, 1515-1532.	2.4	17
50	Markovian approach to nonlinear polymer formation: Free-radical crosslinking copolymerization. <i>Macromolecular Theory and Simulations</i> , 1998, 7, 675-684.	0.6	16
51	Kinetics of Free-Radical Polymerization with Chain-Length-Dependent Bimolecular Termination under Unstationary Conditions. <i>Macromolecules</i> , 1996, 29, 3073-3080.	2.2	15
52	Free-Radical Polymerization with Long-Chain Branching and Scission: Markovian Solution of the Weight-Average Molecular Weight. <i>Macromolecular Theory and Simulations</i> , 2014, 23, 477-489.	0.6	15
53	Simultaneous long-chain branching and random scission. II. Analytic expression for the weight-average molecular weights. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2001, 39, 404-414.	2.4	14
54	Universal Relationships in Hyperbranched Polymer Architecture for Batch and Continuous Step Growth Polymerization of AB ₂ -Type Monomers. <i>Processes</i> , 2019, 7, 220.	1.3	14

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55	General matrix formula for the weight-average molecular weights of crosslinked polymer systems. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 1998, 36, 2423-2433.	2.4	13
56	Scale-Free Power-Law Distribution of Emulsion-Polymerized Nonlinear Polymers: Free-Radical Polymerization with Chain Transfer to Polymer. <i>Macromolecules</i> , 2004, 37, 585-589.	2.2	13
57	Threshold Particle Diameters in Miniemulsion Reversible-Deactivation Radical Polymerization. <i>Polymers</i> , 2011, 3, 1944-1971.	2.0	13
58	Detailed Structural Analysis of the Hyperbranched Polymers Formed in Self-Condensing Vinyl Polymerization. <i>Macromolecular Theory and Simulations</i> , 2019, 28, 1800061.	0.6	13
59	Microgel formation in emulsion copolymerization. I. Polymerization without seed latex. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 1996, 34, 1403-1413.	2.4	12
60	Markovian approach to nonlinear polymer formation: Free-radical polymerization with chain transfer to polymer. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 1998, 36, 357-371.	2.4	12
61	Bimodal molecular weight distribution formed in the emulsion polymerization of ethylene. <i>Journal of Polymer Science Part A</i> , 2002, 40, 3426-3433.	2.5	12
62	Molecular Weight Development during Simultaneous Chain Scission, Long-Chain Branching and Crosslinking. 1. <i>Macromolecular Theory and Simulations</i> , 2003, 12, 24-31.	0.6	12
63	Universality in Branching Frequencies and Molecular Dimensions during Hyperbranched Polymer Formation: Step Polymerization of AB_2 Type Monomer with Equal Reactivity. <i>Macromolecular Theory and Simulations</i> , 2016, 25, 116-122.	0.6	12
64	Copolymerization with Chain Transfer Monomer. 1. Distribution of Branch Points. <i>Macromolecules</i> , 1997, 30, 1685-1692.	2.2	11
65	Scale-Free Power-Law Distribution of Emulsion-Polymerized Branched Polymers: Power Exponent of the Molecular Weight Distribution. <i>Macromolecular Materials and Engineering</i> , 2005, 290, 363-371.	1.7	11
66	Change and Convergence of Polymer Distribution During Nonrandom Degradation. <i>Macromolecular Reaction Engineering</i> , 2010, 4, 333-341.	0.9	11
67	Effects of Retardation and Variation of Monomer Concentration in RAFT Miniemulsion Polymerization. <i>Macromolecular Theory and Simulations</i> , 2011, 20, 709-720.	0.6	11
68	On the Discrimination of RAFT Models Using Miniemulsion Polymerization. <i>Macromolecular Theory and Simulations</i> , 2013, 22, 399-409.	0.6	10
69	Universality in Branching Frequencies and Molecular Dimensions during Hyperbranched Polymer Formation: 2. Step Polymerization of AB_2 Type Monomer with Different Reactivity for the Second B Group. <i>Macromolecular Theory and Simulations</i> , 2016, 25, 123-133.	0.6	10
70	Microgel formation in emulsion copolymerization: 2. Seeded polymerization. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 1996, 34, 1415-1422.	2.4	9
71	Polymer Distribution Change During Irreversible Depolymerization by Chain-End Scission. <i>Macromolecular Theory and Simulations</i> , 2007, 16, 399-406.	0.6	9
72	Hyperbranched Polymers Formed through Irreversible Step Polymerization of AB_2 Type Monomer in a Continuous Flow Stirred-Tank Reactor (CSTR). <i>Macromolecular Theory and Simulations</i> , 2017, 26, 1600078.	0.6	9

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73	Hyperbranched Polymers Formed Through Irreversible Step Polymerization of AB ₂ -Type Monomer with Substitution Effect in a Continuous Flow Stirred-Tank Reactor (CSTR). <i>Macromolecular Theory and Simulations</i> , 2017, 26, 1700020.	0.6	9
74	Crosslinking kinetics in emulsion polymerization. <i>Polymer International</i> , 1993, 30, 177-183.	1.6	8
75	Multivariate Composition Distribution in Free-Radical Multicomponent Polymerization, 1. <i>Macromolecular Theory and Simulations</i> , 2003, 12, 463-469.	0.6	8
76	Continuous Tanks-in-Series Process for Free-Radical Polymerization with Long-Chain Branching and Scission: Effect of the Order of a Large Tank. <i>Macromolecular Reaction Engineering</i> , 2015, 9, 556-569.	0.9	8
77	Model-Based Reactor Design in Free-Radical Polymerization with Simultaneous Long-Chain Branching and Scission. <i>Processes</i> , 2015, 3, 731-748.	1.3	8
78	Effect of Small Reaction Locus in Free-Radical Polymerization: Conventional and Reversible-Deactivation Radical Polymerization. <i>Polymers</i> , 2016, 8, 155.	2.0	8
79	Hyperbranched Polymers Formed Through Self-Condensing Vinyl Polymerization in a Continuous Stirred-Tank Reactor (CSTR): 1. Molecular Weight Distribution. <i>Macromolecular Theory and Simulations</i> , 2018, 27, 1800027.	0.6	7
80	Effect of Chain Transfer to Polymer in Conventional and Living Emulsion Polymerization Process. <i>Processes</i> , 2018, 6, 14.	1.3	7
81	Universal Relationships in Branched Architecture Formed in Conventional and Living Emulsion Polymerization. <i>Macromolecular Theory and Simulations</i> , 2019, 28, 1900018.	0.6	7
82	Control of network structure in emulsion crosslinking copolymerization. <i>Polymer International</i> , 1993, 30, 195-201.	1.6	6
83	Statistical branching of heterochains. <i>Macromolecular Theory and Simulations</i> , 1997, 6, 451-465.	0.6	6
84	Markovian Approach to Free-Radical Polymerization with Simultaneous Long-Chain Branching and Scission: Effect of Branching and Scission Kinetics. <i>Macromolecular Reaction Engineering</i> , 2015, 9, 245-258.	0.9	6
85	Random Branching of Polymer Chains with Schulz-Zimm Distribution. 2. Radius of Gyration and Maximum Span Length. <i>Macromolecular Theory and Simulations</i> , 2020, 29, 1900057.	0.6	6
86	Dimensions of Crosslinked Polymers without Rings. <i>Macromolecular Theory and Simulations</i> , 2022, 31, .	0.6	6
87	Simulation of size exclusion chromatography for branched polymers formed by simultaneous long-chain branching and random scission. <i>E-Polymers</i> , 2002, 2, .	1.3	5
88	Heterochain model for simultaneous long-chain branching and crosslinking. II. Application to free-radical polymerization. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2004, 42, 2791-2800.	2.4	5
89	Model-Based Reactor Design to Control Hyperbranched Polymer Architecture. <i>Macromolecular Reaction Engineering</i> , 2018, 12, 1700065.	0.9	5
90	Molecular weight distribution formed during free-radical polymerization in the presence of polyfunctional chain transfer agents. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 1999, 37, 1267-1275.	2.4	4

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91	Postgel properties in the statistical crosslinking of heterochains. II. Free-radical crosslinking copolymerization. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2000, 38, 2342-2350.	2.4	4
92	Molecular Weight Development in Free-Radical Polymerization with Polyfunctional Chain-Transfer Agents, 1. Equal Reactivity Model. <i>Macromolecular Theory and Simulations</i> , 2001, 10, 573-580.	0.6	4
93	Multivariate Composition Distribution in Free-Radical Multicomponent Polymerization, 2. <i>Macromolecular Theory and Simulations</i> , 2003, 12, 470-475.	0.6	4
94	Random Branching of Polymer Chains with Schulz-Zimm Distribution. 1. Bivariate Distribution and Related Formulae. <i>Macromolecular Theory and Simulations</i> , 2020, 29, 1900056.	0.6	4
95	Production of Homogeneously Branched Polymers by Using a Chain-Transfer Monomer. <i>Industrial & Engineering Chemistry Research</i> , 1997, 36, 1181-1190.	1.8	3
96	Statistical derivation of kinetic molecular weight development equations in nonlinear free-radical polymerization. <i>Macromolecular Theory and Simulations</i> , 1997, 6, 641-654.	0.6	3
97	Comb-Branched Polymer Formation During Copolymerization with Macromonomer. <i>Polymer-Plastics Technology and Engineering</i> , 1999, 7, 577-605.	0.7	3
98	Postgel properties in the statistical crosslinking of heterochains. I. Systems with N types of chains. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2000, 38, 2333-2341.	2.4	3
99	Heterochain model for simultaneous long-chain branching and crosslinking. I. Matrix formula for the weight-average molecular weights. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2004, 42, 2780-2790.	2.4	3
100	Power-law distribution of molecular weights of nonlinear emulsion polymers. <i>E-Polymers</i> , 2005, 5, .	1.3	3
101	Hyperbranched Polymers Formed Through Self-Condensing Vinyl Polymerization in a Continuous Stirred-Tank Reactor (CSTR): 2. Branched Architecture. <i>Macromolecular Theory and Simulations</i> , 2018, 27, 1800028.	0.6	3
102	Gel Point Properties in Batch Free-Radical Vinyl/Divinyl Copolymerization. <i>Macromolecular Reaction Engineering</i> , 2021, 15, 2100018.	0.9	3
103	Dimensions of Network Polymers. <i>Macromolecular Theory and Simulations</i> , 2022, 31, .	0.6	3
104	Heterochain model for simultaneous long-chain branching and crosslinking. III. Multicomponent polymerization. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2004, 42, 2801-2812.	2.4	2
105	Modeling and Simulation of Complex Polymerization Reactions. <i>Macromolecular Theory and Simulations</i> , 2014, 23, 107-109.	0.6	2
106	Molecular Weight Distribution of Core Cross-Linked Star Polymers. <i>Macromolecular Theory and Simulations</i> , 2017, 26, 1600037.	0.6	2
107	Bivariate Distribution and Related Analytical Solutions for Batch Step-Growth Polymerization of AB ₂ -Type Monomer. <i>Macromolecular Theory and Simulations</i> , 2020, 29, 1900049.	0.6	2
108	Effect of Branch Point Distribution on the Radius of Gyration in Batch Free-Radical Polymerization with Chain Transfer to Polymer. <i>Macromolecular Theory and Simulations</i> , 2021, 30, 2000036.	0.6	2

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109	Controllable Power-law Distribution in Free-Radical Vinyl/Divinyl Copolymerization by Using a Continuous Stirred Tank Reactor. <i>Macromolecular Theory and Simulations</i> , 0, , 2100030.	0.6	2
110	Effects of Nano-Sized Polymerization Locus on the Kinetics of Controlled/Living Radical Polymerization. , 2010, , 263-305.		2
111	Relationship between Branched Structure and Viscoelastic Properties of Highly Branched Polyethylene Derived by Monte Carlo Molecular Simulation and the BoBâ€Rheology Simulation Methods. <i>Macromolecular Theory and Simulations</i> , 2021, 30, 2000069.	0.6	1
112	Distributions of Molecular Weights and 3D Sizes of Hyperbranched Polymers Formed in Batch Selfâ€Condensing Vinyl Polymerization. <i>Macromolecular Theory and Simulations</i> , 2021, 30, 2000052.	0.6	1
113	Distribution of molecular weight and composition in diblock copolymers. <i>E-Polymers</i> , 2003, 3, .	1.3	0
114	Scale-free power-law distribution of branched polymers formed in a continuously stirred tank reactor: Simple relationship for the exponent. <i>E-Polymers</i> , 2004, 4, .	1.3	0
115	Scale-free power-law distribution of nonlinear polymers formed in a homeostatic system. <i>E-Polymers</i> , 2004, 4, .	1.3	0
116	3E1346 3-D FRET Analysis for Constructing An Atomic Model of the F-actin and Tn Core Domain Complex in the Reconstituted Thin Filament(3E Muscle 2,The 49th Annual Meeting of the Biophysical Society of) Tj ETQq0 000gBT /Oerlock 10		