

- 99 E. Kolodka, S. Zhu\*, A.E. Hamielec “Preparation of long chain branched polyolefins with metallocene catalysts: copolymerization of ethylene with poly(ethylene-co-propylene) macromonomer”, *Macromol. Rapid Commun.*, **24**, 311-315, 2003
- 98 Z. Ye, H. Alsyouri, S. Zhu\*, Y.S. Lin “Ethylene polymerization with nickel/diimine catalysts supported onto MCM-41 particles”, *Polymer*, **44**, 969-980, 2003
- 97 E. Kolodka, W.-J. Wang, S. Zhu\*, A.E. Hamielec “Copolymerization of propylene with poly(ethylene-co-propylene) macromonomer and branch chain length dependent rheological behavior”, *Macromolecules*, **35**, 10071-10086, 2002
- 96 A.R. Wang, S. Zhu\* “ESR study on diffusion-controlled atom transfer radical polymerization of methylmethacrylate and ethylene glycol dimethacrylate”, *Macromolecules*, **35**, 9926-9933, 2002
- 95 F. Zeng, Y. Shen, S. Zhu “Atom-transfer radical polymerization of 2-(dimethylamino)ethyl acrylate”, *Macromol. Rapid Commun.* **23**, 1113-1117, 2002
- 94 O. Delgadillo-Velazquez, E. Vivaldo-Lima\*, I.A. Quintero-Ortega, S. Zhu “Effects of diffusion-controlled reactions on atom-transfer radical polymerization”, *AIChE J.*, **48**, 2597-2608, 2002
- 93 Y. Shen, S. Zhu\* “Packed column reactor system for continuous atom-transfer radical polymerization of methylmethacrylate and its block copolymerization”, *AIChE J.*, **48**, 2609-2619, 2002.
- 92 L. Gu, S. Zhu\*, A.N. Hrymak “Acidic and basic hydrolysis of poly(N-vinylformamide)”, *J. Appl. Polym. Sci.*, **86**, 3412-3419, 2002
- 91 E. Kokko, W.-J. Wang, J.V. Seppala\*, S. Zhu, “Structural analysis of dimethylsilylbis(indenyl)zirconium dichloride / methylaluminumoxane catalyzed polyethylene”, *J. Polym. Sci., Polym. Chem.*, **40**, 3292-3301, 2002
- 90 F. Zeng, Y. Shen, S. Zhu\* “Synthesis of comb-branched polyacrylamide with cationic poly(dimethylaminoethylmethacrylate dimethylsulfate) quat”, *J. Polym. Sci., Polym. Chem.*, **40**, 2394-2405, 2002
- 89 E. Kolodka, W.-J. Wang, S. Zhu\*, A.E. Hamielec “Molecular weight dependence on domain formation of grafted poly(ethylene-co-propylene) in polypropylene matrix”, *Macromol. Rapid Commun.*, **23**, 470-473, 2002
- 88 L. Gu, S. Zhu\*, A.N. Hrymak “Synthesis and flocculation performance of N-vinylformamide and polydimethylaminoethyl methacrylate quats”, *Colloid Polym. Sci.*, **280**, 167-175, 2002
- 87 Y. Shen, S. Zhu\* “Atom-transfer radical polymerization of methylmethacrylate mediated by CuBr-tetraethyldiethylenetriamine grafted on soluble and recoverable poly(ethylene-b-ethylene glycol) supports”, *Macromolecules*, **34**, 8603, 2001
- 86 F. Zeng, Y. Shen, S. Zhu\* “Synthesis of styrenic terminated methacrylate macromonomers by nitranion initiated living anionic polymerization”, *Macromol. Rapid Commun.* **22**, 1399, 2001
- 85 C. Jiang, Y. Shen, S. Zhu\*, D. Hunkeler “Gel formation in atom transfer radical polymerization of 2-dimethyl aminoethyl methacrylate and ethylene glycol dimethacrylate”, *J. Polym. Sci., Polym. Chem.*, **39**, 3780-3788, 2001
- 84 Q. Yu, S. Nauman, J.P. Santerre, S. Zhu\* “UV Photopolymerization Behavior of Dimethacrylate Oligomers with Camphorquinone/Amine Initiator System” *J. Appl. Polym. Sci.*, **82**, 1107-1117, 2001
- 83 Y. Shen, S. Zhu\*, R.H. Pelton “Effect of ligand spacer on atom transfer radical polymerization of methyl methacrylate”, *Macromolecules*, **34**, 5812-5818, 2001

- 82 Q. Yu, S. Nauman, J.P. Santerre, S. Zhu\* "Photo-polymerization behavior of dimethacrylate oligomers" *J. Mater. Sci.*, **36**, 3599-3605, 2001
- 81 Y. Shen, S. Zhu\*, R.H. Pelton "Soluble and recoverable support for copper-mediated living radical polymerization", *Macromolecules*, **34**, 3182-3185, 2001
- 80 Y. Shen, S. Zhu\*, F. Zeng, R.H. Pelton "Novel Cationic Macromonomers by Living Anionic Polymerization of Dimethylaminoethyl Methacrylate", *Macromolecules*, **34**, 376-381, 2001
- 79 L. Gu, S. Zhu\*, A.N. Hrymak, R.H. Pelton "Nature of Poly(N-vinylformamide) Gel Formed in Free Radical Polymerization of N-vinylformamide", *Macromol. Rapid Commun.*, **22**, 212-214, 2001
- 78 L. Gu, S. Zhu\*, A.N. Hrymak, R.H. Pelton "Kinetics and Modelling of Free Radical Polymerization of N-Vinylformamide", *Polymer*, **42**, 3077-3086, 2001
- 77 Q. Yu, F. Zeng, S. Zhu\* "Atom transfer radical polymerization of polyethylene glycol methacrylates" *Macromolecules*, **34**, 1612-1618, 2001.
- 76 Y. Shen, S. Zhu\*, R.H. Pelton "Supported atom transfer radical polymerization of methyl methacrylate mediated by CuBr-tetraethyldiethylenetriamine grafted onto silica gel", *J. Polym. Sci. Polym. Chem.*, **39**, 1051-1059, 2001
- 75 Y. Shen, S. Zhu\*, R.H. Pelton "A Capping Method for Nitrogen Anion Initiated Living Anionic Polymerization for Synthesizing Alkyl Methacrylate Macromonomers", *Macromolecules*, **34**, 144-150, 2001
- 74 S. Park, W. Wang, S. Zhu\* "Continuous solution copolymerization of ethylene with propylene using constrained geometry catalyst", *Macromol. Chem. Phys.*, **201**, 2203-2209, 2000
- 73 Y. Shen, S. Zhu\*, R.H. Pelton "Packed column reactor for atom transfer radical polymerization: methylmethacrylate polymerization using silica gel supported catalyst" *Macromol. Rapid Commun.*, **21**, 956-959, 2000
- 72 Y. Shen, S. Zhu\*, F. Zeng, R.H. Pelton "Synthesis of Methacrylate Macromonomers Using Silica Gel Supported Atom Transfer Radical Polymerization" *Macromol. Chem. Phys.*, **201**, 1387-1394, 2000
- 71 F. Zeng, Y. Shen, S. Zhu\*, R.H. Pelton "Atom Transfer Radical Polymerization of 2-(Dimethylamino)ethyl Methacrylate in Aqueous Media", *J Polym. Sci. Polym. Chem.*, **38**, 3821-3827, 2000.
- 70 W. Wang, S. Zhu\*, S. Park "Long chain branching in ethylene/propylene solution polymerization using constrained geometry catalyst", *Macromolecules*, **33**, 5770-5776, 2000
- 69 Y. Shen, S. Zhu\*, F. Zeng, R.H. Pelton "Atom Transfer Radical Polymerization of Methyl Methacrylate by Silica Gel Supported Copper Bromide/Multidentate Amine" *Macromolecules*, **33**, 5427-5431, 2000
- 68 Y. Shen, S. Zhu\*, F. Zeng, R.H. Pelton "Versatile Initiators For Macromonomer Syntheses of Acrylates, Methacrylates and Styrene By Atom Transfer Radical Polymerization" *Macromolecules*, **33**, 5399-5404, 2000
- 67 Y. Shen, F. Zeng, S. Zhu\*, R.H. Pelton "Atom Transfer Radical Polymerization of Alkyl Methacrylates Using T-Triazine as Ligand" *Macromol. Chem. Phys.*, **201**, 1169-1175, 2000
- 66 T. Enright, S. Zhu\* "Modeling and Control of Crosslink Density Distribution in Chain Copolymerization of Vinyl/Divinyl Monomers Using Semi-Batch Processes", *Macromol. Theory Simul.*, **9**, 196-206, 2000
- 65 R. Subramanian, Y.H. Huang, S. Zhu\*, A.N. Hrymak, R.H. Pelton "ESR Study and Reactive Extrusion of Polyacrylamide and Poly(diallyldimethylammoniumchloride) with Peroxides", *J. Appl. Polym. Sci.*, **77**, 1154-1164, 2000

- 64 F. Zeng, Y. Shen, S. Zhu\*, R.H. Pelton "Synthesis and Characterization of Comb-Branched Polyelectrolytes 1, Preparation of Cationic Macromonomer of 2-(Dimethylamino)ethyl Methacrylate by Atom Transfer Radical Polymerization", *Macromolecules*, **33**, 1628-1635 2000
- 63 E. Kolodka, W.-J. Wang, P.A. Charpentier, S. Zhu\*, A.E. Hamielec "Long Chain Branching in Ethylene Polymerization Using Zirconocene Catalysts" *Polymer*, **41**, 3985-1991, 2000
- 62 W.-J. Wang, S. Zhu\* "Structural Analysis of Ethylene/Propylene Copolymers Synthesized with a Constrained Geometry Catalyst", *Macromolecules*, **33**, 1157-1162, 2000.
- 61 Z. Zhang, S. Zhu\* "Microvoid in Unsaturated Polyester Resin Containing Polyvinylacetate and Composites with Calcium Carbonate and Glass Fiber", *Polymer*, **41**, 3861-3870, 2000
- 60 S. Zhu\*, W.-J. Wang "Modelling and Analysis of High Impact Polypropylene Processes 1, Effect of Chemical Poisoning on Particle Size Distribution and Gel Formation", *Macromol. Theory Simul.*, **8**, 594-602, 1999
- 59 R. Subramanian, S. Zhu\*, R.H. Pelton "Flocculation of Model Titanium Dioxide Suspension by Graft and Random Copolymer Microgels of Acrylamide and Diallyldimethyl Ammonium Chloride", *Colloid Polym. Sci.* **277**, 939-946, 1999
- 58 L. Gu, A.N. Hrymak\*, S. Zhu "Grafting Polyelectrolytes onto Polyacrylamide via Reactive Processing", *J. Appl. Polym. Sci.* **74**, 1412-1416, 1999
- 57 W.-J. Wang, E. Kolodka, S. Zhu\*, A.E. Hamielec "TREF Studies on LCB Metallocene Polyethylene", *Macromol. Chem. Phys.*, **200**, 2146-2151, 1999
- 56 S. Zhu\* "Modelling Stable Free Radical Polymerization" *J. Polym. Sci., Polym. Phys.*, **37**, 2692-2704, 1999
- 55 W.-J. Wang, D. Yan, S. Zhu\*, A.E. Hamielec "Long Chain Branching in Ethylene Polymerization Using Binary Metallocene Catalyst System" *Polym. React. Eng.* **7**, 327-346, 1999
- 54 Y. Huang, W.-J. Wang, S. Zhu\*, G.L. Rempel "ESR Study on Styrene Polymerization with CpTiCl<sub>3</sub>/MAO: Effect of Monomer Addition on Catalyst Activity" *J. Polym. Sci., Chem.*, **37**, 3385-3390, 1999
- 53 W.-J. Wang, E. Kolodka, S. Zhu\*, A.E. Hamielec "Continuous Solution Copolymerization of Ethylene/Octene with Constrained Geometry Metallocene Catalyst", *J. Polym. Sci., Polym. Chem.*, **37**, 2949-2957, 1999
- 52 Y. Huang, Q. Yu, S. Zhu\*, G.L. Rempel, L. Li "ESR Studies on Oxidation State of Titanocene and Zirconocene Catalysts" *J. Polym. Sci., Polym. Chem.* **37**, 1465-1472, 1999
- 51 D. Li, S. Zhu\*, R.H. Pelton, M. Spafford "Flocculation of Dilute Titanium Dioxide Suspension by Graft Cationic Polyelectrolytes", *Colloid Polym. Sci.* **277**, 108-114, 1999
- 50 S. Zhu\*, W.-J. Wang "Analytical Function for Molecular Weight Distribution in Living Polymerization", Note to *J. Polym. Sci., Polym. Phys.* **37**, 961-964, 1999
- 49 M. Ma, S. Zhu\* "Grafting Polyelectrolytes onto Polyacrylamide for Flocculation: 2, Flocculation and Sludge Dewatering", *Colloid Polym. Sci.*, **277**, 123-129, 1999.
- 48 M. Ma, S. Zhu\* "Grafting Polyelectrolytes onto Polyacrylamide for Flocculation: 1, Synthesis and Characterization", *Colloid. Polym. Sci.*, **277**, 115-122, 1999
- 47 Q. Yu, S. Zhu\* "Peroxide Crosslinking of Isotactic and Syndiotactic Polypropylene", *Polymer*, **40**, 2961-2968, 1999
- 46 S. Zhu\* "Molecular Weight Development in Atom-Transfer Radical Polymerization" *Macromol. Theory Simul.* **8**, 29-37, 1999

- 45 D. Yan, W.-J. Wang, S. Zhu\* "Effect of Long Chain Branching on Rheological Properties of Metallocene Polyethylene" *Polymer*, **40**, 1737-1744, 1999
- 44 W.-J. Wang, D. Yan, S. Zhu\*, A.E. Hamielec "Kinetics of Long Chain Branching in Continuous Solution Polymerization of Ethylene Using Constrained Geometry Catalysts" *Macromolecules*, **31**, 8677-8683, 1998
- 43 W.-J. Wang, P.A. Charpentier, D. Yan, S. Zhu\*, A.E. Hamielec, B.G. Sayer "Long Chain Branching in Ethylene Polymerization Using Constrained Geometry Metallocene Catalyst" *Macromol. Chem. Phys.*, **199**, 2409-2416, 1998
- 42 S. Zhu\* "Analytical Functions for Bivariate Distribution of Chain Length and Branching Density, Star, Comb and Random-Branched Polymers", *Macromolecules*, **31**, 7519-7527, 1998
- 41 Q. Yu, S. Zhu\* "Peroxide Induced Crosslinking and Degradation of PA", *Int. Polym. Proces*, **13**, 142-148, 1998
- 40 P.A. Charpentier, S. Zhu, A.E. Hamielec\*, M.A. Brook "Effect of Aluminoxane on Semi-Batch Polymerization of Ethylene Using Zirconocene Dichloride" *Polymer*, **39**, 6501-6511, 1998
- 39 S. Zhu\*, D. Li, W. Zhou, C.M. Crowe "Molecular Weight Distribution of Comb Polymers by Chain Copolymerization with Macromonomer", *Polymer*, **39**, 5203-5208, 1998
- 38 W. Zhou, S. Zhu\* "ESR Studies on Peroxide Modification of High Density Polyethylene", *Macromolecules*, **31**, 4335-4341, 1998
- 37 D. Li, S. Zhu\*, R.H. Pelton "Preparation and Characterization of Poly(acrylamide-g-ethyleneimine)", *Eur. Polym. J.*, **34**, 1199-1205, 1998
- 36 S. Zhu\*, R.H. Pelton, A.E. Hamielec, "Gel Formation of Polyacrylic Acid in Dilute Aqueous Solution via Radiation Crosslinking", *Eur. Polym. J.*, **34**, 487-492, 1998
- 35 Q. Yu, S. Zhu\*, W. Zhou "Peroxide Induced Crosslinking and Degradation of Polyvinyl Chloride", *J. Polym. Sci. Polym. Chem.*, **36**, 851-860, 1998
- 34 L. Gu, S. Zhu\*, A.N. Hrymak "Modeling Molecular Weight Distribution of Comb-Branched Graft Copolymers", *J. Polym. Sci., Polym. Phys.*, **36**, 705-714, 1998
- 33 S. Zhu\*, D. Li, Q. Yu, D. Hunkeler "Change in Molecular Weight Distribution During Formation and Degradation of Star Polymers", *J. Macromol. Sci., Pure Appl. Chem.*, **A35**, 33-56, 1998
- 32 P.A. Charpentier, S. Zhu\*, A.E. Hamielec, M.A. Brook "Continuous Solution Polymerization of Ethylene Using Metallocene Catalyst System, Cp<sub>2</sub>ZrCl<sub>2</sub>/MMAO/TMA" *Ind. Eng. Chem. Res.*, **36**, 5074-5082, 1997
- 31 D. Hunkeler\*, T. Sychaj, S. Zhu "Light Scattering Characterization of Homo- and Copolymers in THF: Development of A One-Point Method to Improve the Accuracy and Precision in Molecular Weight Estimation", *J. Appl. Polym. Sci.*, **66**, 1303-1316, 1997
- 30 H. Guo, A.E. Hamielec, S. Zhu\*, "Experimental Study of Emulsion Polymerization with Crosslinking", *J. Appl. Polym. Sci.*, **66**, 935-957, 1997
- 29 H. Tobita\*, S. Zhu "Statistical Cross-Linking of Heterochains", *Polymer*, **38**, 5431-5439, 1997.
- 28 S. Zhu\*, D. Li "Molecular Weight Distribution of Metallocene Polymerization with Long Chain Branching Using a Binary Catalyst System", *Macromol. Theory Simul*, **6**, 793-803, 1997
- 27 W. Zhou, S. Zhu\* "ESR Study on Peroxide Modification of Polypropylenes", *Ind. Eng. Chem. Res.*, **36**, 1130-1135, 1997.
- 26 S. Zhu\*, M. Ma "Polymer Coupling and Theory of Non-Random Crosslinking: An Analytical Solution", *Macromol. Theory Simul.*, **5**, 1105-1120, 1996

- 25 S. Zhu\*, M. Ma, W. Zhou "Theory of Non-Random Crosslinking: Free Radical Polymer Grafting", *Macromolecules*, **29**, 5688-5694, 1996
- 24 H. Tobita\*, S. Zhu "Polyradical Distribution in Free Radical Crosslinking of Polymer Chains", *J. Polym. Sci., Polym. Phys.*, **34**, 2099-2104, 1996
- 23 S. Zhu\* "Molecular Weight Distribution in Free Radical Polymer Modification with Crosslinking: Effect of Chain-Length Dependent Termination", *Macromolecules*, **29**, 456-461, 1996
- 22 S. Zhu\* "Effect of Polyradicals on Gel Formation in Free Radical Polymer Modification", *J. Polym. Sci., Polym. Phys.*, **34**, 505-516, 1996
- 21 M. Ma, S. Zhu, A.E. Hamielec\* "Comments on "A New Copolymerization Equation"", *J. Appl. Polym. Sci.*, **60**, 2039-2040, 1996.
- 20 A.K.T. Chan, R.H. Pelton\*, S. Zhu, M.H.I. Baird "The Effect of Polystyrene Beads and Nylon Fibres on the Permeability of Compressed Wood Fibre Pads", *Can. J. Chem. Eng.*, **74**, 229-235, 1996
- 19 X. Zhao, S. Zhu, A.E. Hamielec\*, R.H. Pelton " Kinetics of Polyelectrolyte Network Formation in Free-Radical Copolymerization of Acrylic Acid and Bisacrylamide", *Makromol. Chem., Macromol. Symp.*, **92**, 253-300, 1995
- 18 S. Zhu\*, R.H. Pelton, K. Collver, "Mechanistic Modelling of Fluid Permeation Through Compressible Fibre Beds", *Chem. Eng. Sci.* **50**, 3557-3572, 1995
- 17 S. Zhu, A.E. Hamielec\*, "Gel Formation in Free-Radical Polymerization via Chain Transfer and Terminal Branching", *J. Polym. Sci., Polym. Phys.*, **32**, 929-943, 1994
- 16 S. Zhu, A.E. Hamielec\*, "Modelling of Free-Radical Polymerization with Branching, Stationary-State Hypothesis and Monoradical Assumption", *Macromolecules*, **26**, 3131-3136, 1993
- 15 S. Zhu, A.E. Hamielec\*, R.H. Pelton, "Modelling of Crosslinking and Cyclization in Free-Radical Copolymerization of Vinyl/Divinyl Monomers", *Makromol. Chem., Theory Simul.*, **2**, 587-604, 1993
- 14 S. Zhu, R.H. Pelton\*, M. Ajersch, M. Towers, M.H.I. Baird, "Measurement of Air Bubble Size Using Densitometer", *Can. J. Chem. Eng.*, **71**, 269-277, 1993
- 13 D. Li, S. Zhu, A.E. Hamielec\*, "ESR Study on Permeation of Oxygen in Crosslinked Polymers", *Polymer*, **34**, 1383-1387, 1993
- 12 V.J. Triacca, P.E. Gloor, S. Zhu, A.N. Hrymak\*, A.E. Hamielec, "Free-Radical Degradation of Polypropylene: Random Chain Scission", *Polym. Eng. Sci.*, **33**, 445-454, 1993
- 11 S. Zhu, A.E. Hamielec\*, "Kinetics of Network Formation via Free-Radical mechanisms - Polymerization and Polymer Modification", *Makromol. Chem., Macromol. Symp.*, **69**, 247-256, 1993
- 10 S. Zhu, A.E. Hamielec\*, "Influence of Crosslink Density Distribution on Network Formation in Copolymerization of Vinyl/Divinyl Monomers", *Macromolecules*, **25**, 5457-5464, 1992
- 9 Y. Tian, S. Zhu, A.E. Hamielec\*, D.B. Fulton, D.R. Eaton, "Conformation, Environment and Reactivity of Radicals in Copolymerization of MMA/EGDMA", *Polymer*, **33**, 384-390, 1992
- 8 S. Zhu, A.E. Hamielec\*, "Kinetics of Polymeric Network Synthesis via Free-Radical Mechanisms - Polymerization and Polymer Modification", *Makromol. Chem., Macromol. Symp.*, **63**, 135-182, 1992
- 7 S. Zhu, A.E. Hamielec\*, "Heat Effects for Free Radical Polymerization in Glass Ampoule Reactors", *Polymer*, **32**, 3021-3025, 1991

- 6 A.E. Hamielec\*, P.E. Gloor, S. Zhu, "Kinetics of Free Radical Modification of Polyolefins in Extruders: Chain Scission, Crosslinking and Grafting", *Can. J. Chem. Eng.*, **69**, 611-618, 1991
- 5 S. Zhu, Y. Tian, A.E. Hamielec\*, D.R. Eaton, "Termination of Trapped Radicals at Elevated Temperatures in Copolymerization of MMA/EGDMA", *Polymer*, **31**, 1726-1734, 1990
- 4 S. Zhu, Y. Tian, A.E. Hamielec\*, D.R. Eaton, "Radical Concentrations in Free Radical Copolymerization of MMA/EGDMA", *Polymer*, **31**, 154-159, 1990
- 3 S. Zhu, Y. Tian, A.E. Hamielec\*, D.R. Eaton, "Radical Trapping and Termination in Free Radical Polymerization of MMA", *Macromolecules*, **23**, 1144-1150, 1990
- 2 S. Zhu, A.E. Hamielec\*, "Chain-Length Dependent Termination for Free Radical Polymerization", *Macromolecules*, **22**, 3093-3098, 1989
- 1 Z. Wu\*, Z. Chen, Z. Shou, S. Zhu "Isobaric Vapor-Liquid Equilibrium of Isobutene-Isoprene-Chloromethane Systems at 1.03 MPa", *J. Chem. Ind. Eng., (English Ed.)*, **3**, 185-195, 1988