

**LIST OF INSTITUTE FOR POLYMER RESEARCH PREPRINTS
1979 - 2007**

2007

- 07/001 **Nitroxide-mediated controlled degradation of polypropylene**
A. Psarreas, N. McManus, C. Tzoganakis, A. Penlidis
Antec 2007, Acc., 01/07
- 07/002 **Effect of a polydimethylsiloxane-modified polyolefin additive on the
extrusion of LLDPE**
S.-H. Zhu, N.T. McManus, C. Tzoganakis, A. Penlidis
Antec 2007, Acc., 01/07
- 07/003 **Viscoelastic Properties of Arborescent Polystyrene-graft-
polyisoprene copolymers**
S.J. Teertstra, M. Gauthier
Macromolecules, Acc., 01/07
- 07/004 **Recent advances in the study of multifunctional initiators in free
radical polymerizations**
M.J. Scolah, R. Dhib, A. Penlidis
Macromol. React. Eng., Acc., 12/06
- 07/005 **Synthesis of low density poly(ethylene) using nickel
iminophosphoramidate complexes**
R.A. Stapleton, J. Chai, A. Nuanthanom, Z. Flisak, M. Nele, T. Ziegler,
P.L. Rinaldi, J.B.P. Soares, S. Collins
Macromolecules, Acc., 01/07
- 07/006 **Comparative study of propylene polymerization using Me₂Si
(RInd)₂ZrCl₂/SiO₂-SMAO/AIR₃ and Me₂Si(RInd)₂ZrCl₂/MAO (R=Me, H)**
F.C. Franceschini, T.T. da R. Tavares, J.H.Z. dos Santos, J.B.P. Soares,
M.L. Ferreira
Polymer, in print, 02/07
- 07/007 **Atom-transfer radical polymerization of styrene with bifunctional and
monofunctional initiators: experimental and mathematical modelling
results**
M. Al-Harhi, L.S. Cheng, J.B.P. Soares, L.C. Simon
J. Polym. Sci., Part A: Polym. Chemistry, Acc., 01/07
- 07/008 **Prediction of chain length distribution of polystyrene made in batch
reactors with bifunctional free-radical initiators using dynamic Monte
Carlo simulation**
I.M. Maafa, J.B.P. Soares, A. Elkamel
Macromol. React. Eng., Acc., 03/07

- 07/009 **Effect of a poly(dimethylsiloxane) modified polyolefin additive on the processing and surface properties of LLDPE**
S.-H. Zhu, N.T. McManus, C. Tzoganakis, and A. Penlidis
Polym. Eng. Sci., Acc., 03/07
- 07/010 **Mathematical modelling of atom transfer radical copolymerization**
M. Al-Harhi, J.B.P. Soares, L.C. Simon
Macromol. React. Eng., Acc., 04/07
- 07/011 **Synthesis of arborescent copolymers by a one-pot method**
Z. Yuan, M. Gauthier
Macromol. Chem. And Phys., Acc., 04/07
- 07/012 **Functionalization of polypropylene with sulfonyl azide through reactive processing**
Q. Li and C. Tzoganakis
Intern'l Polym. Processing, Acc., 04/07
- 07/013 **Effect of temperature and pressure on surface tension of polystyrene in supercritical carbon dioxide**
H. Park, R.B. Thompson, N. Lanson, C. Tzoganakis, C.B. Park, P. Chen
J. Physical Chem. B, Acc., 04/07
- 07/014 **Effect of molecular weight on the surface tension of polystyrene melt in supercritical nitrogen**
H. Park, C.B. Park, C. Tzoganakis, P. Chen
Ind. Chem. Res. Acc., 04/07
- 07/015 **Arborescent polymers and other dendrigraft polymers: A journey into structural diversity**
M. Gauthier
J. Poly. Sci. A: Poly. Chem, Acc., 05/07
- 07/016 **An overview of important microstructural distributions for polyolefin analysis**
J.B.P. Soares
Macomol. Symp., Acc., 05/07
- 07/017 **A mathematical model for the kinetics of crystallization in crystaf**
S. Anantawaraskul, J.B.P. Soares, P. Jirachaithjhorn
Macomol. Symp., Acc., 05/07
- 07/018 **Characterization of ethylene-1-hexene copolymers made with supported metallocene catalysts: influence of support type**
B. Paredes, J.B.P. Soares, R. van Grieken, A. Carerro, I. Suarez
Macomol. Symp., Acc., 05/07

- 07/019 **Correlating pyrene excimer formation with polymer chain dynamics in solution. Possibilities and limitations.**
M. Ingratta and J. Duhamel
Macromol., Acc., 06/07
- 07/020 **Dynamic Monte Carlo simulation of olefin polymerization in stopped-flow reactors**
J.B.P. Soares and T. Nguyen
Macromol Symp., Acc., 08/07
- 07/021 **Nitroxide-mediated controlled degradation of polypropylene**
A. Psarreas, C. Tzoganakis, N. McManus and A. Penlidis
Polym. Eng. Sci., Acc., 08/07
- 07/022 **A practical approach to modeling time-dependent nonlinear creep behavior of polyethylene for structural applications**
H. Liu, M.A. Polak and A. Penlidis
Polym. Eng. Sci., Acc. 09/07
- 07/023 **Copolymer composition control policies: characteristics and applications**
T. Fujisawa and A. Penlidis
J. Macromol. Sci., Pure and Appl. Chem, Acc., 09/07
- 07/024 **Toward a living radical polymerization of styrene by using dithiolactones as a new type of mediating agent**
J.G.Soriano-Moro, J.C.Rico-Valverde, F.J. Enriquez-Medrano, H.Maldonado-Textle, E. Vivaldo-Lima, R. Acosta-Ortiz and R. Guerrero- Santos
Macromol. Rapid Comm., Acc., 10/07
- 07/025 **Steady state simulation of ethylene polymerization using multiple-site coordination catalysts**
F.Perez Valencia and J.B.P. Soares
Macromol. React. Eng., Acc., 10/07
- 07/026 **Nanofilled silicone dielectrics prepared with surfactant for outdoor insulation applications**
I. Ramirez, E.A. Cherney, S. Jayaram and M. Gauthier
IEEE Trans. Dielectr. Electr. Insul., Acc., 10/07
- 07/027 **Simulation of polymerization and long chain branch formation in a semi-batch reactor using two single-site catalysts**
S. Mehdiabadi, J.B.P.Soares, A. H. Dekmezian
Macromol. React. Eng., Acc., 11/07

- 07/028 **Conformation of arborescent polymers in solution by small-angle neutron scattering: segment density and core-shell morphology**
S.I. Yun, K.-C. Lai, R.M. Briber, S.J. Teertstra, M. Gauthier, B.J. Bauer
Macromolecules, Acc., 12/07
- 07/029 **Arborescent polystyrene-graft-poly(tert-butyl methacrylate) copolymers**
R.A. Kee and M. Gauthier
J. Polym. Sci., Part A: Polym. Chem., Acc., 12/07
- 07/030 **Chain length distributions of polyolefins made in stopped-flow reactors for non-instantaneous site activation**
J.B.P. Soares and A.E. Hamielec
Macromolecular Reaction Engineering, Acc., 12/07
- 07/031 **Structure and optical properties of natural biopolymers chitin and chitosan**
G. Luna-Barcenas, B. Gonzalez-Campos, E.A. Elizalde-Pena,
E. Vivaldo-Lima, J.F. Louvier-Hernandez, Y.V. Vorobiev and
J. Gonzalez-Hernandez
Physica Status Solidi (a)-Applications and Materials Science, Acc., 12/07

2006

- 06/001 **Mathematical modelling of atom-transfer radical polymerization using bifunctional initiators**
M. Al-Harhi, J.B.P. Soares, L.C. Simon
Macromol. Theory and Sim., Acc., 01/06
- 06/002 **Modelling of atom transfer radical polymerization with bifunctional initiators: diffusion effects and case studies**
M. Al-Harhi, J.B.P. Soares, L.C. Simon
Macromol. Chem. And Phys., Acc., 01/06
- 06/003 **One-pot synthesis of arborescent polystyrenes**
Z. Yuan and M. Gauthier
Macromolecules, Acc., 02/06
- 06/004 **Dilute-solution structure of charged arborescent graft polymer**
S.I. Yun, R.M. Briber, R.A. Kee, M. Gauthier
Polymer, Acc., 02/06
- 06/005 **Bulk copolymerization of styrene and methyl methacrylate at elevated temperatures**
S. Shankar. R. Khesareh, N. McManus and A. Penlidis
J. Macromol. Sci., Pure and Appl. Chem., Acc., 01/06
- 06/006 **Controlled free-radical copolymerization kinetics of styrene and divinylbenzene by bimolecular NMRP using TEMPO and dibenzoyl peroxide**
E. Tuinman, N.T. McManus, M. Roa-Luna, E. Vivlado-Lima, L.M.F. Lona, A. Penlidis
J. Macromol. Sci., Pure and Appl. Chem., Acc., 02/06
- 06/007 **Experimental study of a tetrafunctional peroxide initiator: bulk free radical polymerization of butyl acrylate and vinyl acetate**
M.J. Scolah, R. Cosentino, R. Dhib, A. Penlidis
Polymer Bulletin, Acc., 03/06
- 06/008 **Modelling of free radical polymerization of styrene and methyl methacrylate by a tetrafunctional initiator**
M.J. Scolah, R. Dhib, A. Penlidis
Chem. Eng. Sci., Acc., 03/06
- 06/009 **Layer-by-layer self-assembled polyelectrolyte membranes for solvent dehydration by pervaporation**
Z. Zhu, X. Feng and A. Penlidis
Mat. Sci. Eng., Acc., 12/05

- 06/010 **Of the uses of the pyrene label for fluorescence studies of polymeric interfaces**
J. Duhamel
Ed. by P. Chen, Woodhead Publishing Co., 2005, pg. 214-248
- 06/011 **Study of the semidilute solutions of poly (*N,N*-dimethylacrylamide) by fluorescence and its implications to the kinetics of coil-to-globule transitions**
K. Irondi, M. Zhang, J. Duhamel
J. Phys. Chem. B 110 pg. 2628-2637, 2006
- 06/012 **NMR analysis of butyl acrylate-methyl methacrylate-alpha methyl styrene terpolymers**
N.T. McManus and A. Penlidis
J. Appl. Polym. Sci., Acc., 03/06
- 06/013 **Studies of copolymers of 3-methacryloyloxystyryl-4'-methylphenyl ketone and methyl methacrylate**
R. Santhi, K. V. Babu, A. Pelidis, S. Nanjundan
React. & Funct. Polym., Acc., 04/06
- 06/014 **A comparison of reaction mechanisms for reversible addition-fragmentation chain transfer polymerization using modeling tools**
J. Pallares, Gabriel Jaramillo-Soto, C. Flores-Catano, E. Vivaldo-Lima, L.M.F. Lona and A. Penlidis
J. Macromol Sci-Pure and Appl. Chem, Acc., 04/06
- 06/015 **Dynamic Monte Carlo Simulation of Atom-Transfer Radical Polymerization**
M. Al-Harhi, J.B.P. Soares, L.C. Simon
Macromol. Mtls and Engg, Acc., 05/06
- 06/016 **Determination of the relative importance of process factors in particle size distribution in suspension polymerization using a Bayesian experimental design technique**
E. Vivaldo-Lima, A. Penlidis, P.E. Wood, A. E. Hamielec
J. Appl. Polym. Sci., Acc., 06/06
- 06/017 **Mathematical modeling of crystallization analysis fractionation (Crystaf) of polyethylene**
S. Anantawaraskul, J.B.P. Soares, P. Jirachaithorn, J. Limtrakul
J. Poly. Sci, B: Poly. Phys., Acc., 06/06
- 06/018 **Chain length distributions of polyolefins made with coordination catalysts at very short polymerization times—analytical solution and Monte Carlo simulation**
J.B.P. Soares and A. E. Hamielec
Macromol. React. Eng., Acc., 07/06

- 06/019 **Modeling of the homogeneous free-radical copolymerization kinetics of fluoromonomers in carbon dioxide at supercritical conditions**
I.A. Quintero-Ortega, E. Vivaldo-Lima, R.B. Gupta, G. Luna-Bárceñas and A. Penlidis
Macromol. Sci., A: Pure Appl. Chem., Acc., 07/06
- 06/020 **Polymer chain dynamics in solution probed with a fluorescence blob model**
J. Duhamel
Accounts of Chemical Res., Acc., 08/06
- 06/021 **Micromechanical Approach to Modeling Damage in Crystalline Polyethylene**
J. Alvarado-Contreras, M.A. Polak, A. Penlidis
Polym. Eng. & Sci., Acc., 08/06
- 06/022 **Characterization by dilute solution and rheological methods of polystyrene and poly(methyl methacrylate) produced with a tetrafunctional peroxide initiator**
M.J. Scoriah, C. Tzoganakis, R. Dhib, A. Penlidis
J. Appl. Poly. Sci., Acc., 08/06
- 06/023 **The bifurcation behavior of a polyurethane continuous stirred tank reactor**
V. Zavala-Tejeda, A. Flores-Tlacuahuac, E. Vivaldo-Lima
Chem. Eng. Sci., Acc., 08/06
- 06/024 **Another perspective on the nitroxide mediated radical polymerization (NMRP) of styrene using 2,2,6,6-tetramethyl-1-piperidinyloxy (TEMPO) and dibenzoyl peroxide (BPO)**
M. Roa-Luna, A. Nabifar, M.P. Diaz-Barber, N.T. McManus, E. Vivaldo-Lima, L.M.F. Lona and A. Penlidis
J. Macromol. Sci., A., Pure and Appl. Chem., Acc., 09/06
- 06/025 **Terpolymerization with depropagation: modeling the copolymer composition of the methyl methacrylate/alpha-methylstyrene/butyl acrylate system**
M.J. Leamen, N.T. McManus, A. Penlidis
Chem. Eng. Sci., Acc., 09/06
- 06/026 **Assessing the importance of diffusion-controlled effects on polymerization rate and molecular weight development in nitroxide-mediated radical polymerization of styrene**
M. Roa-Luna, M.P. Diaz-Barber, E. Vivaldo-Lima, L.M.F. Lona, N.T. McManus and A. Penlidis
J. Macromol. Sci., A., Pure and Appl. Chem. Acc., 09/06
- 06/027 **Dynamic Monte Carlo simulation of ATRP with bifunctional initiators**
M. Al-Harhi, J.B.P. Soares and L.C. Simon
Macromol. React. Eng., Acc., 09/06

- 06/028 **Coordination Polymerization**
J.B.P. Soares, T. McKenna, C.P. Cheng
Polym. React. Eng. (book chapter), Acc., 09/06
- 06/029 **A kinetic study of metallocene-catalyzed ethylene polymerization using different aluminoxane cocatalysts**
D.M. Sarzotti, D.J. Marshman, W.E. Ripmeester, J.B.P. Soares
J. Polym. Sci, Part A, Polym. Chem., Published, 12/06
- 06/030 **Nitroxide-mediated radical polymerization of styrene using mono- and di-functional initiators**
R.S. Dias, M.C. Goncalves, L.M.F. Lona, E.Vivaldo-Lima, N.T. McManus, A. Penlidis
Chem. Eng. Sci, Acc., 12/06
- 06/031 **Simulation of styrene polymerization by monomolecular and bimolecular nitroxide-mediated radical processes over a range of reaction conditions**
J.B. Ximenes, P.V.R. Mesa, L.M.F. Lona, E. Vivaldo-Lima, N.T. McManus, A. Penlidis
Macromol. Theory and Simul., Acc., 12/06

2005

- 05/001 **Characterization of the aggregates made by short poly(ethylene oxide) chains labelled at one end with pyrene**
H. Siu, T.J.V. Prazeres, J. Duhamel
Macromolecules, Acc., 01/05
- 05/002 **Crystallization Analysis Fractionation (Crystaf)**
J.B.P. Soares, S. Anantawaraskul
Journal of Polymer Science, Part B: Polymer Physics, Acc., 02/05
- 05/003 **Microstructural characterization of molecular weight fractions of ethylene/1,7-octadiene copolymers made with a constrained geometry catalyst**
D.M. Sarzotti, A. Narayan, P.M. Whitney, L.C. Simon, J.B.P. Soares
Macromolecular Materials and Engineering, Acc., 02/05
- 05/004 **Diagnosis of impurity levels in a copolymerization process**
S. Lou, T.A. Duever, H.M. Budman
Macromolecular Theory and Simulation, Acc., 02/05
- 05/005 **Effect of solvent quality toward the association of succinimide pendants of a modified ethylene-propylene copolymer in mixtures of toluene and hexane**
M.Zhang, J. Duhamel
Macromolecules, Acc., 03/05
- 05/006 **Synthesis of arborescent isoprene homopolymers**
Z. Yuan and M. Gauthier
Macromolecules, Acc., 03/05
- 05/007 **A practical approach to simulate polymerizations with minimal information**
L.M.F. Lona and A. Penlidis
Industrial and Engineering Chemistry Research, Acc., 02/05
- 05/008 **Use of a novel tetrafunctional initiator in the free radical homo- and copolymerization of styrene, methyl methacrylate and α -methyl styrene**
M.J. Scolah, R. Dhib and A. Penlidis
Journal of Macromolecular Science—Part A, Pure and Applied Chemistry, Acc., 02/05
- 05/009 **Binary copolymerization with full depropagation: a study of methyl methacrylate/ α -methyl styrene copolymerization**
M.J. Leamen, N.T. McManus, A. Penlidis
Journal of Polymer Science, Polymer Chemistry, Acc., 04/05

- 05/010 **High temperature bulk copolymerization of methyl methacrylate and acrylonitrile: I. Reactivity ratio estimation**
R. Khesareh, N.T. McManus and A. Penlidis
Journal of Applied Polymer Science, Acc., 04/05
- 05/011 **Interfacial properties of amphiphilic dendritic polymers**
G.N. Njikang and M. Gauthier
Molecular interfacial phenomena of polymers and biopolymers. Ed. Pu Chen, publi. Woodhead Publishing (UK), Acc., 05/05
- 05/012 **Branching level detection in polymers**
M.J. Scolah, R. Dhib and A. Penlidis
Encyclopedia of Chemical Processing (ECHP), S. Lee (Ed.), Marcel Dekker, NY, Acc., 05/05
- 05/013 **The importance of considering non-fluorescent pyrene aggregates for the study of pyrene-labeled associative thickeners by fluorescence**
H. Siu and J. Duhamel
Macromolecules, Acc., 06/05
- 05/014 **Correlations between the viscoelastic behaviour of pyrene-labeled associative polymers and the associations of their fluorescent hydrophobes**
T.J.V. Prazeres, J. Duhamel, K. Olesen, G. Shay
J. Phys. Chem. B, Acc. 06/05
- 05/015 **Self-assembled nanostructured polyelectrolyte composite membranes for pervaporation**
Z. Zhu, X. Feng and A. Penlidis
Mtls Sci. and Eng., Acc., 07/05
- 05/016 **High temperature bulk copolymerization of methyl methacrylate and acrylonitrile: II. Full conversion range experiments**
R. Khesareh, N.T. McManus and A. Penlidis
J. Macromol. Sci., Acc., 08/05
- 05/017 **High temperature bulk copolymerization of methyl methacrylate and acrylonitrile: III. Thermal polymerization**
R. Khesareh, N.T. McManus and A. Penlidis
Polym. Plast. Techn. Eng., Acc., 10/05
- 05/018 **Grafting of ethylene-ethyl acrylate-maleic anhydride terpolymer with amino-terminated polydimethylsiloxane during reactive processing**
N.T. McManus, S.-H. Zhu, C. Tzoganakis, and A. Penlidis
J. Appl. Polym. Sci., Acc., 10/05

05/019

**Associations between a pyrene-labeled hydrophobically modified
alkali swellable emulsion copolymer and sodium dodecyl sulfate
probed by fluorescence, surface tension and rheology**

H. Siu and J. Duhamel

Macromolecules, Acc., 11/05

2004

- 04/001 **Characterization by fluorescence of the distribution of maleic anhydride grafted onto ethylene-propylene copolymers**
M. Zhang, J. Duhamel, M van Duin, P. Meessen
Macromolecules, Acc., 01/04
- 04/002 **Dendrigraft polymers: macromolecular engineering on a mesoscopic scale**
S.J. Teertstra and M. Gauthier
Progress in Polym. Sci., Acc., 01/04
- 04/003 **Blob model analysis of the pH-induced fluorescence quenching of two anthracene-labeled poly(2-vinylpyridine)s**
J. Duhamel
Macromolecules, Acc., 01/04
- 04/004 **Homopolymer of 4-propanoylphenyl methacrylate and its copolymers with glycidyl methacrylate: Synthesis, characterization, reactivity ratios and application as adhesives**
G.G. Godwin, C.S. Jone Selvamalar, A. Penlidis and S. Nanjundan
Reactive and Functional Polymers, Acc., 01/04
- 04/005 **Homopolymer and Copolymers of 4-Benzyloxycarbonylphenyl Acrylate with Glycidyl Methacrylate: Synthesis, Characterization, Reactivity Ratios and Application as Adhesive for Leather**
C.S. Jone Selvamalar, P.S. Vijayanand, A. Penlidis, S. Nanjundan
J. Appl. Polym. Sci., Acc., 02/04
- 04/006 **Determination of monomer reactivity ratios in styrene/2-ethylhexylacrylate copolymer**
A. Kavousian, F. Ziaee, M.H. Nekoomanesh, M.J. Leamen, A. Penlidis
J. Appl. Polym. Sci., Acc., 02/04
- 04/007 **A study on the cocrystallization of blends of ethylene/1-olefin copolymers during crystallization analysis fractionation (Crystaf)**
S. Anantawaraskul, J.B.P. Soares, P.M. Wood-Adams
Macromol. Chem. Phys., Acc., 02/04
- 04/008 **Inverse modelling applications in emulsion polymerization of vinyl acetate**
F.A.N. Fernandes, L.M.F. Lona, A. Penlidis
Chem. Eng. Sci., Acc., 02/04
- 04/009 **Copolymers of 4-(3,4-dimethoxy cinnamoyl)phenyl acrylate and MMA: Synthesis, characterization, photocrosslinking properties and monomer reactivity ratios**
P. Selvam, K. Victor Babu, A. Penlidis, S. Nanjundan
J. Macromol. Sci.—Pure Appl. Chem., Acc., 03/04

- 04/010 **High temperature copolymerization of styrene/ethyl acrylate: reactivity ratio estimation in bulk and solution**
N. Sahloul and A. Penlidis
Adv. In Polym. Techn., Acc., 03/04
- 04/011 **Fractionation**
J.B.P. Soares
Encyclopedia of Polymer Science and Technology
John Wiley and Sons, 2004
- 04/012 **The refractive index increment (dn/dc) using GPC for the alpha-methyl styrene/methyl methacrylate copolymer at 670 nm in tetrahydrofuran**
M.J. Leamen, N.T. McManus and A. Penlidis
J. Appl. Polym. Sci., Acc., 03/04
- 04/013 **Copolymerization of alpha-methyl styrene with butyl acrylate: parameter estimation considerations**
T.J. Wang, M.J. Leamen, N.T. McManus, A. Penlidis
J. Macromol. Sci., A: Pure and Applied Chem., Acc., 04/04
- 04/014 **Free radical terpolymerization of butyl acrylate/methyl methacrylate and alpha methyl styrene at high temperature**
N.T. McManus, G. Hsieh and A. Penlidis
Polymer, Acc., 05/04
- 04/015 **Monte Carlo simulation of long chain branched polyolefins made with dual catalysts—a classification of chain structure in topological branching families**
L.C. Simon, J.B.P. Soares
Ind. Eng. Chem. Res., Acc., June 2004
- 04/016 **Fractionation of semi-crystalline polymers by crystallization analysis fraction (Crystaf) and temperature rising elution fractionation (Tref)**
S. Anantawaraskul, J.B.P. Soares, P.M. Wood-Adams
Adv. Polym. Sci., Acc., July 2004
- 04/017 **Copolymerization of alpha-methyl styrene with butyl acrylate: parameter estimation considerations**
T.J. Wang, M.J. Leamen, N.T. McManus, A. Penlidis
J. Macromol. Sci., Pure Appl. Chem., Acc., April 2004
- 04/018 **Free radical terpolymerization of butyl acrylate/methyl methacrylate and alpha methyl styrene at high temperature**
N.T. McManus, G. Hsieh and A. Penlidis
Polymer, Acc., May 2004

- 04/019 **Free radical polymerization of methyl methacrylate with a tetrafunctional peroxide initiator**
M.J. Scolah, R. Dhib, A. Penlidis
J. Polym. Sci., Polym. Chem., Acc., June 2004
- 04/020 **Hydrosilylation of polypropylene through reactive extrusion**
M.P. Bulsari, C.Tzoganakis, A. Penlidis
ANTEC SPE 2004 63 (3), 3865-3869
- 04/021 **Modeling of the copolymerization, with depropagation, of α -methyl styrene and methyl methacrylate at an elevated temperature**
S.I. Cheong, A. Penlidis
J. of Appl. Polym. Sci., Vol. 93, 261-270 (2004)
- 04/022 **Coordination Polymerization**
J.B.P. Soares, L.C. Simon
Handbook of Polymer Reaction Engineering, T. Meyer and J.T.F. Keurentjes (Eds.), Wiley-VCH, Weinheim
- 04/023 **A. practical approach to simulate polymerizations with minimal information**
L.M.F. Lona and A. Penlidis
J. Ind. & Eng. Chem. Res., Acc., September 2004
- 04/024 **Global analysis of the fluorescence decays of a pyrene-labelled polymer using a *Blob* model**
H. Siu and J. Duhamel
Macromolecules, Acc., September 2004
- 04/025 **Homopolymer of 4-Benzoylphenyl methacrylate and its copolymers with glycidyl methacrylate: synthesis, characterization, monomer reactivity ratios and application as adhesives**
S. Nanjundan, C. Sreekuttan Unnithan, C.S. Jone Selvamalar and A. Penlidis
Reactive and Functional Polymers, Acc., September 2004
- 04/026 **Copolymerization of 4-Propanoylphenyl acrylate with methyl methacrylate: synthesis, characterization and reactivity ratios**
C. Sreekuttan Unnithan, A. Penlidis and S. Nanjundan
J. Macromol. Sci.—Pure and Appl. Chem., Acc., September 2004
- 04/027 **Copolymerization of benzoylphenyl methacrylate with methyl methacrylate: synthesis, characterization and determination of monomer reactivity ratios**
P. Selvam, C. Sreekuttan Unnithan, A. Penlidis, S. Nanjundan
M. Macromol. Sci.—Pure and Appl. Chem., Acc., December 2004

04/028

Studies on photocrosslinkable copolymers of 4-methacryloyloxyphenyl-3',4'-dimethoxystyryl ketone and methyl methacrylate

P. Selvam, K. Victor Babu, A. Penlidis, S. Nanjundan
Eur. Polym. J., Acc., December 2004

2003

- 03/001 **Free radical polymerisation of styrene with a new tetrafunctional peroxide initiator**
S. Fityani-Trimmm, R. Dhib and A. Penlidis
Macromol. Chem. Phys, Acc. 01/03
- 03/002 **Polypropylene obtained with in-situ supported metallocene catalysts**
F.C. Franceschini, T.T. da R. Tavares, P.P. Greco, D. Bianchini, F.C. Stedile, G. B. Galland, J.H.Z. dos Santos, J.B.P. Soares
J. Mol. Catalysis, Acc., 01/03
- 03/003 **Chemical composition distribution of multicomponent copolymers**
S. Anantawaraskul, J.B.P. Soares and P.M. Wood-Adams
Macromol. Theory Simul., Acc., 01/03
- 03/004 **Concentration effect on the aggregation of a self-assembling oligopeptide**
S.Y. Fung, C. Keyes, J. Duhamel and P. Chen
Biophysical Journal, Acc., 02/03
- 03/005 **Arborescent polystyrene-graft-poly(2-vinylpyridine) copolymers as unimolecular micelles. I. Synthesis from acetylated substrates**
M. Gauthier, J. Li and J. Dockendorff
Macromolecules, Acc., 02/03
- 03/006 **Quantitative phase contrast imaging of arborescent graft polystyrene by off-axis transmission electron holography**
T-M. Chou, M. Libera and M. Gauthier
Polymer, Acc., 02/03
- 03/007 **Effect of operation parameters on temperature rising elution fractionation (Tref) and crystallization analysis fractionation (Crystaf)**
S. Anantawaraskul, J.P.B. Soares, P.M. Wood-Adams
J. Polym. Sci: Part B: Polym. Phys., Acc., 03/03
- 03/008 **Copolymerization of 4-benzyloxycarbonylphenyl methacrylate with glycidyl methacrylate: synthesis, characterization, reactivity ratios and application as adhesives**
C.S. Jone Selvamalar, T. Krithiga, A. Penlidis and S. Nanjundan
Reactive and Functional Polymers, Acc., 04/03
- 03/009 **Modelling and simulation of complex aspects of multicomponent emulsion polymerization**
B.R. Barclay, A. Penlidis and J. Gao
Polymer Reaction Engineering Journal, Acc., 07/03

- 03/010 **Gas permeation through poly(ether-B-Amide) (Pebax 2533) block copolymer membranes**
J.C.Chen, Z. Feng and A. Penlidis
Sep. Sci. and Techn., Acc., 07/03
- 03/011 **Side-chain dynamics of an α -helical polypeptide monitored by fluorescence**
J. Duhamel, S.Kanagalingam, T. O'Brien, M. Ingratta
J. Am. Chem. Soc., Acc., 08/03
- 03/012 **Using designed experiments in manufacturing: modern design considerations and a manufacturing case study**
T.A. Duever and H-J Graf
Proceedings of the 2003 Automotive Elastomers Conference
Dearborn, MI, USA June 18-19, 2003
- 03/013 **Comparison of fault detection techniques**
S.J. Lou, H. Budman and T.A. Duever
Journal of Process Control 13 (2003) 451-464
- 03/014 **Copolymers of 4-benzyloxycarbonylphenyl methacrylate with methyl methacrylate: synthesis, characterization and reactivity ratios**
C.S. Jone Selvamalar, A. Penlidis and S. Nanjundan
J. Macromol. Sci., Part A—Pure and Appl. Chem., Vol A40, 10 (2003) 1019-1033
- 03/015 **A protocol for the estimation of parameters in process models: case studies with polymerization scenarios**
A.L. Polic, L.M.F. Lona, T.A. Duever and A. Penlidis
Macrom. Theory and Simul., Acc., 10/03
- 03/016 **Derivation of the distributions of long chain branching, molecular weight, seniority, and priority for polyolefins made with two metallocene catalysts**
D.J. Read and J.B.P. Soares
Macromolecules, Acc., 10/03
- 03/017 **Synthesis of arborescent polystyrene-graft-polyisoprene copolymers using acetylated substrates**
J.Li, M. Gauthier, S.J. Teertstra, H. Zu and S.S. Sheiko
Macromolecules, Acc., 12/03
- 03/018 **Polyolefins with long chain branches made with single-site coordination catalysts: a review of mathematical modelling techniques for polymer microstructure**
J.B.P. Soares
Macromol. Mtls. And Engg., Acc., 12/03

2002

- 02/001 **A "Round-Robin" experiment in high-temperature gel-permeation chromatography**
L. D'Agnillo, J.B.P. Soares, A. Penlidis
J. Polym. Sci., Polym. Phys., Acc. 02/02
- 02/002 **Copolymers of 3,5 dimethylphenyl methacrylate and methyl methacrylate: synthesis, characterization and determination of reactivity ratios**
P.S. Vijayanand, A. Penlidis, S. Radhakrishnan and S. Nanjundan
J. Macromol. Sci., Pure and Appl. Chem., Acc. 02/02
- 02/003 **The rigid interior of styrene-maleic anhydride copolymer aggregates probed by fluorescence spectroscopy**
J. Claracq, S.F.C.R. Santos, J. Duhamel, C. Dumousseaux, J-M Corpart
Langmuir, Acc. 03/02
- 02/004 **Reactive extrusion of polypropylene with supercritical carbon dioxide: free radical grafting of maleic anhydride**
B.M. Dorscht and C. Tzoganakis
J. Appl. Poly. Sci., Acc. 05/02
- 02/005 **Arborescent polystyrene-graft-poly(2-vinylpyridine) copolymers: synthesis and enhanced polyelectrolyte effect in solution**
R.A. Kee and M. Gauthier
Macromolecules, Acc. 06/02
- 02/006 **Sulfobetaine Zwitterionomers based on *n*-butyl acrylate and 2-ethoxyethyl acrylate: physical properties**
M. Gauthier, T. Carrozzella, G. Snell
J. Poly. Sci., Poly. Phys. Ed., Acc 06/02
- 02/007 **Process Modelling and Optimization of Styrene Polymerization**
J. Gao, K.D. Hungenberg and A. Penlidis
"Modern Styrenic Polymers" (Wiley; ed. John Schiers and Duane Priddy), Acc 02/02
- 02/008 **Method for synthesis of graft polymers**
M. Gauthier, J. Li, S.R. Parent, S.J. Teertstra
US Patent no. 6,407,169 B1, dated June 18, 2002
- 02/009 **Bulk and solution copolymerization of butyl acrylate/methyl methacrylate at elevated temperatures**
M.A. Dubé, M. Hakim, N.T. McManus, A. Penlidis
Macromol. Chem. Phys, Acc: 07/02
- 02/010 **Copolymers of 3,5-Dimethylphenyl acrylate and methyl methacrylate: synthesis, characterization and determination of reactivity ratios**
P.S. Vijayanand, S. Radhakrishnan, A. Penlidis, S. Nanjundan
Polymer International Journal, Acc: 08/02
- 02/011 **Comparative trends of copolymerizations involving alpha methyl styrene at**

elevated temperatures

N.T. McManus, L.M.F. Lona, A. Penlidis

Polym. React. Eng. J., Acc: 08/02

- 02/012 **Modelling of free radical polymerization of ethylene using difunctional initiators**
R. Dhib, N. Al-Nidawy
Chem. Eng. Sci., 57(2002) 2735-2746
- 02/013 **Reactive extrusion of polypropylene with supercritical carbon dioxide: free radical grafting of maleic anhydride**
B.M. Dorscht and C. Tzoganakis
Applied Polym. Sci, Acc: 04/02
- 02/014 **Rheological properties of polystyrene/supercritical CO₂ solutions from an extrusion slit die**
A. Xue and C. Tzoganakis
J. Polym. Eng., Acc: 09/02
- 02/015 **Characterization and modeling of metallocene-based branch-block copolymers**
A.H. Dekmezian, J.B.P. Soares, P. Jiang, C.A. Garcia-Franco, W. Weng, H. Fruitwala, T.Sun and D.M. Sarzotti
Macromolecules, Acc: 09/02
- 02/016 **Improvement in techniques for the determination of extensional rheological data from entrance flows: computations and experimental analysis**
M. Zatloukal, J. Vlček, C. Tzoganakis, P. Sába
J. of Non-Newtonian Fluid Mechanics, 107 (2002) 13-37
- 02/017 **Long chain branching with metallocene catalysts: Is a purely kinetic mechanism for terminal branching sufficient?**
M. Nele and J.B.P. Soares
Macromol. Theory Simul., Acc: 10/02
- 02/018 **Ethylene/1-hexene copolymers synthesized with a single-site catalyst: Crystaf analysis, modeling and reactivity ratio estimation**
D.M. Sarzotti, J.B.P. Soares, A. Penlidis
J. Polym. Sci.: Part B: Polym. Phys., Acc: 10/02
- 02/019 **HDPE/LLDPE reactor blends with bimodal microstructures—Part I: mechanical properties**
C. Li Pi Shan, J.B.P. Soares, A. Penlidis
Polymer, Acc: 10/02

- 02/020 **HDPE/LLDPE reactor blends with bimodal microstructures—Part II: Rheological properties**
C. Li Pi Shan, J.B.P. Soares, A. Penlidis
Polymer, Acc: 10/02
- 02/021 **Ethylene/1-octene copolymerization studies with in-situ supported metallocene catalysts: effect of polymerization parameters on catalyst activity and polymer microstructure**
C. Li Pi Shan, J.B.P. Soares, A. Penlidis
J. Polym. Sci., Part A: Polym. Chem., Acc: 10/02
- 02/022 **Surface characteristics of hydrosilylated polypropylene**
J. Long, C. Tzoganakis, P. Chen
J. Appl. Polym. Sci., Acc: 10/02
- 02/023 **Copolymerization of 4-benzyloxycarbonylphenyl acrylate with methyl methacrylate: synthesis, characterization and determination of reactivity ratios**
P.S. Vijayanand, A. Penlidis and S. Nanjundan
J. Macromol. Sci.—Pure and Appl. Chem., Acc: 11/02
- 02/024 **Comparing strategies for the synthesis of polyolefinic thermoplastic elastomers via macromonomer incorporation**
M.C. Haag, L.C. Simon, J.B.P. Soares
Macromol. Theory Simul., Add: 12/02

2001

- 01/001 **Control of coating properties of LDPE through melt strength measurements**
K. Xiao, C. Tzoganakis and H. Budman
Control Engineering Practice, Acc. 01/01
- 01/002 **Single particle modelling for olefin polymerization on supported catalysts: a review and proposals for future developments**
T.F. McKenna and J.B.P. Soares
Chem. Eng. Sci, Acc. 02/01
- 01/003 **Mathematical modelling of the microstructure of polyolefins made by coordination polymerization. A review.**
J.B.P. Soares
Chem. Eng. Sci. Acc. 02/01
- 01/004 **Numerical simulations of polymer flows in flat spiral dies**
M. Zatloukal, C. Tzoganakis, J. Perdikoulis and P. Saha
Polym. Eng. & Sci. Acc. 02/01
- 01/005 **Copolymerization with depropagation: a study of α -methyl styrene/methyl methacrylate in solution at elevated temperatures**
D.E. Palmer, N.T. McManus and A. Penlidis
J. Poly. Sci., Poly Chem. Acc: 03/01
- 01/006 **Maleated ethylene-propylene random copolymers: determination of the microstructure and association level by fluorescence spectroscopy**
V. Vangani, J. Drage, J. Mehta, A.K. Mathew, and J. Duhamel
J. Phys. Chem. Acc: 03/01
- 01/007 **Study of the crystallizability of ethylene homopolymers by crystallization analysis fractionation (Crystaf)**
J. Nieto, T. Oswald, F. Blanco, J.B.P. Soares and B. Monrabal
J. Polym. Sci: Part B: Polym. Phys. Acc: 04/01
- 01/008 **Relationship between local residence time and distributive mixing in sections of a twin screw extruder**
G. Shearer and C. Tzoganakis
Polymer Engineering and Science. Acc: 04/01
- 01/009 **The asymptotic variance of the univariate PLS estimator**
A. Phatak, P.M. Reilly and A. Penlidis
J. Linear Algebra and its Applications (Elsevier) Acc: 05/01

- 01/010 **Polyethylene made with in-situ supported ni-diimine/SMAO: replication phenomenon and effect of polymerization conditions on polymer microstructure and morphology**
L.C. Simon, H. Patel, J.B.P. Soares and R.F. de Souza
J. Macrom. Chem. and Phys. Acc: 05/01
- 01/011 **Mathematical modelling and computer simulator/database for emulsion polymerizations**
J. Gao and A. Penlidis
Progress in Polymer Science, Acc: 09/01
- 01/012 **A Novel Synthetic Path to Arborescent Graft Polystyrenes**
J. Li and M. Gauthier
Macromolecules, Acc. 10/01
- 01/013 **Polyethylene made with combinations of single-site-type catalysts: Monte Carlo simulation of long chain branch formation**
L. C. Simon and J.B.P. Soares
Macromol. Theory Simul., Acc: 10/01
- 01/014 **Mechanical properties of ethylene/1-hexene copolymers with tailored short chain branching distributions**
C. Li Pi Shan, J.B.P. Soares and A. Penlidis
Polymer, Acc: 10/01
- 01/015 **Mathematical modelling of the long chain branch structure of polyolefins made with two metallocene catalysts: an algebraic solution to calculate fractions of polymer populations with different numbers of long chain branches per chain**
J.B.P. Soares
Macromol. Theory Simul., Acc: 10/01
- 01/016 **Sulfobetaine Zwitterionomers based on *n*-butyl acrylate and 2-ethoxyethyl acrylate: monomer synthesis and copolymerization behaviour**
M. Gauthier, T. Carozella and A. Penlidis
J. Poly. Sci., Polym. Chem., Acc: 11/01
- 01/017 **Copolymerization of alpha-methyl styrene with butyl acrylate in bulk**
N.T. McManus, A. Penlidis and M.A. Dubé
Polymer, Acc: 11/01

2000

- 00/001 **Copolymerization of ethylene and α -olefins with combined metallocene catalysts. I. A formal criterion for molecular weight bimodality**
J.B.P. Soares and J.D. Kim
J. Polym. Sci., Part A: Polym. Chem., Acc. 01/00
- 00/002 **Copolymerization of ethylene and α -olefins with combined metallocene catalysts. II. Mathematical modelling of polymerization with single metallocene catalysts**
J.D. Kim and J.B.P. Soares
J. Polym. Sci., Part A: Polym. Chem., Acc. 01/00
- 00/003 **Copolymerization of ethylene and α -olefins with combined metallocene catalysts. III. Production of polyolefins with tailored microstructure**
J.D. Kim and J.B.P. Soares
J. Polym. Sci., Part A: Polym. Chem., Acc. 01/00
- 00/004 **Mathematical modelling and control of chemical composition distribution of ethylene/ α -olefin copolymers made with single and combined metallocene catalysts**
J.B.P. Soares, D. Beigzadeh, T. A. Duever and A.A. da Silva Filho
Polymer Reaction Engineering Journal, Acc: 01/00
- 00/005 **Measurement and mathematical modelling of molecular weight and chemical composition distributions of ethylene/ α -olefin copolymers synthesized with a heterogeneous Ziegler-Natta catalyst**
A.A. da Silva Filho, J.B.P. Soares and G.B. de Galland
Polymer Reaction Engineering Journal, Acc: 01/00
- 00/006 **Effect of experimental conditions on ethylene polymerization with in-situ supported metallocene catalysts**
K.-J. Chu, J.B.P. Soares and A. Penlidis
J. Polym. Sci. A: Polym. Chem 38: 1803-1810, 2000
- 00/007 **Monte-Carlo simulation of branching distribution in ni-diimine catalyzed polyethylene**
L.C. Simon, J.B.P. Soares and R.F. de Souza
Macromol. Chem. Phys, Acc: 01/00
- 00/008 **A comprehensive simulator/database package for bulk/solution free-radical terpolymerizations**
J. Gao and A. Penlidis
Macromol. Chem. Phys.: Acc. 01/00
- 00/009 **The effects of reaction conditions on the formation of poly(2-vinylpyridine) coatings by electropolymerization**
X. Ling, M. Pritzker, C.M. Burns and J.J. Byerley
Journal of Coatings Technology, Acc: 02/00

- 00/010 **Computation of the linear viscoelastic relaxation spectrum from capillary viscosity data**
M. Zatloukal, C. Tzoganakis, J. Vlcek and T. Dobbie
Advances in Polymer Technology, Acc: 03/00
- 00/011 **Chemical modification of low density polyethylene through reactive extrusion: Part I: process development and product characterization**
S.A. Nield, C. Tzoganakis and H.C. Budman
Advances in Polymer Technology, Acc: 03/00
- 00/012 **Copolymerization with depropagation: a study of α -methyl styrene/methyl methacrylate in bulk at elevated temperatures**
D.E. Palmer, N.T. McManus and A. Penlidis
J. Poly. Sci., Poly. Chem., Acc: 02/00
- 00/013 **A study of the influence of impurities when discriminating between the terminal and penultimate copolymerization models**
R. Landry, A. Penlidis and T.A. Duever
J. Poly. Sci, Poly. Chem., Acc: 04/00
- 00/014 **Study of energy migration and tripping in a poly(ethylene 2,6-naphthalenedicarboxylate) matrix by fluorescence spectroscopy**
J. Duhamel, A.S. Jones and T.J. Dickson
Macromolecules, Acc: 06/00
- 00/015 **Small-angle neutron scattering of blends of arborescent polystyrenes**
S. Choi, R.M. Briber, B.J. Bauer, D.-W. Liu and M. Gauthier
Macromolecules, Acc: 07/00
- 00/016 **Arborescent polymers: designed macromolecules with a dendritic structure**
M. Gauthier
Book Chapter in *Tailored Polymers and Applications*, M.K. Mishra, ed. VSP (2000)
- 00/017 **Synthesis of ω and α - ω sulfonatotelechelic based on homopoly-mers and block copolymers of *n*-butyl methacrylate and *t*-butyl methacrylate**
J. Li and M. Gauthier
Journal of Polymer Science, Part A: Polymer Chemistry, Acc: 07/00
- 00/018 **High temperature solution polymerization of butyl acrylate/methyl methacrylate: reactivity ratio estimation**
M. Hakim, V. Verhoeven, N.T. McManus, M.A. Dube and A. Penlidis
Journal of Applied Polymer Science, Vol. 77, 602-609 (2000)
- 00/019 **Modelling of fractionation in crystaf using Monte Carlo simulation of crystallizable sequence lengths: ethylene/1-octene copolymers synthesized with single-site-type catalysts**
D. Beigzadeh, J.B.P. Soares, and T.A. Duever
J. Appl. Polym. Sci., Acc. 08/00

- 00/020 **Modification of rheological properties of LDPE for coating applications**
K. Xiao, C. Tzoganakis and H. Budman
I & EC Research, Acc. 09/00
- 00/021 **Using alkylaluminum activators to tailor short branching distributions of ethylene/1-hexene copolymers produced with in-situ supported metallocene catalysts**
C. Li Pi Shan, K.-J. Chu, J.B.P. Soares and A. Penlidis
Macromol. Chem. Phys., Acc. 09/00
- 00/022 **Kinetic investigation of ethylene polymerization catalyzed by nickel-diimine catalysts**
L.C. Simon, C.P. Williams, J.P.P. Soares and R.F. de Souza
J. Macromol. Catalysis: A, Acc. 09/00
- 00/023 **Electropolymerized Poly(2-vinylpyridine) coatings as ion-exchange polymer modified electrodes**
N. Tantavichet, M.D. Pritzker and C.M. Burns
Journal of Applied Electrochemistry: Acc. 08/00
- 00/024 **Proton Uptake by Poly(2-vinylpyridine) Coatings**
N. Tantavichet, M.D. Pritzker and C.M. Burns
Journal of Applied Polymer Science: Acc. 11/00
- 00/025 **Maleic anhydride modified oligo(isobutylene): effect of hydrogen bonding on its associative strength in hexane characterised by fluorescence spectroscopy**
A. K. Mathew, J. Duhamel and J. Gao
Macromolecules: Acc: 12/00

1999

- 99/001 **Analysis of branching structure in polyethylene resins synthesized with constrained-geometry catalyst systems, using Monte Carlo Simulation**
D. Beigzadeh, J.B.P. Soares and T.A. Duever
Polym. React. Eng., Acc. 01/99
- 99/002 **Effect of prepolymerization and hydrogen pressure on the microstructure of ethylene/1-hexene copolymers made with MgCl₂-supported TiCl₃ catalysts**
K-J Chu, J.B.P. Soares, A. Penlidis and S-K Ihm
Eur. Polym. J., Acc. 01/99
- 99/003 **The influence of Ti³⁺ structure on the microstructure of ethylene/1-hexene copolymers**
K-J Chu, J.B.P. Soares, A. Penlidis and S-K Ihm
Macromol. Chem. Phys., Acc. 01/99
- 99/004 **Study of a polymeric network by dynamic fluorescence quenching using a blob model**
V. Vangani, J. Duhamel, S. Nemeth and T-C. Jao
Macromolecules, Acc. 03/99
- 99/005 **Fluorescence properties of poly(ethylene terephthalate-co-2,6-naphthalene dicarboxylate) with naphthalene contents ranging from 0.01 to 100 mole%**
A.S. Jones, T.J. Dickson, B.E. Wilson and J. Duhamel
Macromolecules, Acc. 03/99
- 99/006 **Copolymerization of ethylene and 1 hexene with in-situ supported Et[Ind]₂ZrCl₂**
K-J. Chu, C. Li Pi Shan, J.B.P. Soares and A. Penlidis
Macromol. Chem., Acc. 06/99
- 99/007 **Combined metallocene catalysts: an efficient technique to manipulate long-chain branching frequency of polyethylene**
D. Beigzadeh, J.B.P. Soares and T.A. Duever
Macromol. Rapid Commun., Acc. 06/99
- 99/008 **Arborescent polymers: highly branched homo- and copolymers with unusual properties**
M. Gauthier
Ionic Polymerizations and Related Processes
Book chapter, published August 1999, Kluwer Academic
- 99/009 **Vapor-liquid equilibria for binary solutions of arborescent and linear polystyrenes**
J.G. Lieu, J.M. Prausnitz and M. Gauthier
Polymer, Acc. 08/99

- 99/010 **Small angle neutron scattering of solutions of arborescent graft polystyrenes**
S.Choi, R.M. Briber, B.J. Bauer, A. Topp, M. Gauthier and L. Tichwaga
Macromolecules, Acc. 08/99
- 99/011 **Arborescent polystyrene-graft-polyisoprene**
R.A. Kee and M. Gauthier
Macromolecules, Acc. 08/99
- 99/012 **Simulation of free-radical bulk/solution homopolymerization using mono-and bi-functional initiators**
R. Dhib, J. Gao and A. Penlidis
Polymer Reaction Engineering, Acc. 08/99
- 99/013 **The effects of kneading block design and operating conditions on distributive mixing in twin screw extruders**
G. Shearer and C. Tzoganakis
Polymer Engineering and Science, Acc. 08/99
- 99/014 **Mixing analysis of reactive polymer flow in a single-screw extruder channel**
D. Strutt, C. Tzoganakis and T.A. Duever
Polymer Engineering and Science, Acc. 08/99
- 99/015 **Interfacial instabilities in coextrusion flows of low-density polyethylenes: experimental studies**
C. Tzoganakis and J. Perdikoulis
Polymer Engineering and Science, Acc. 08/99
- 99/016 **A *Blob* model to study chain folding by fluorescence**
A. Mathew, H. Siu and J. Duhamel
Macromolecules, Acc. 09/99
- 99/017 **Observations on HDPE characterization with a microcalorimeter as a complementary tool to TREF and CRYSTAF**
L.J.D. Britto, J.B.P. Soares and A. Penlidis
Polymer Reaction Engineering Journal, Acc. 10/99
- 99/018 **Measurement, mathematical modelling and control of distributions of molecular weight, chemical composition and long-chain branching of polyolefins made with metallocene catalysts**
J.B.P. Soares and A. Penlidis
Metallocene-based Polyolefins, John Wiley & Sons Ltd. (2000)
- 99/019 **Effect of hydrogen on ethylene polymerization with in-situ supported metallocene catalysts**
K.J. Chu, J.B.P. Soares and A. Penlidis
Macrom. Chem. & Phys., Acc. 06/99
- 99/020 **Polymerization mechanism for in-situ supported metallocene catalysts**
K.J. Chu, J.B.P. Soares and A. Penlidis
J. Polym. Sci., Part A: Polym. Chem., Acc. 08/99

- 99/021 **Variation of molecular weight distribution (MWD) and short chain branching distribution (SCBD) of ethylene/1-hexene copolymers produced with different in-situ supported metallocene catalysts**
K.J. Chu, J.B.P. Soares and A. Penlidis
Macrom. Chem. & Phys., Acc. 09/99
- 99/022 **Environmental stress cracking resistance of polyethylene: use of CRYSTAF and SEC to establish structure-property relationships**
J.B.P. Soares, R.F. Abbott and J.D. Kim
J. Polym. Sci., Part B. Polym. Phys., Acc. 10/99

1998

- 98/001 **A Comprehensive Simulator/Database Package for Reviewing Free-Radical Copolymerizations**
J. Gao and A. Penlidis
M. Macrom. Sci., Revs. in Macromol. Chem. & Phys., Acc. 01/98
- 98/002 **Use of Hydrogen for the Tailoring of the Molecular Weight Distribution of Polyethylene in Bimetallic Supported Metallocene Catalyst System**
J. D. Kim, J.B.P. Soares and G.L. Rempel
Macromol. Rapid Commun., Acc. 01/98
- 98/003 **Soap-free Emulsion Polymerization of n-Butyl Acrylate: Copolymerization with 1,1-(Dimethyl)-1-(3-Methacryloxyethyl)-1-(Sulfopropyl) Ammonium Betaine**
H.P. Blom, M. Gauthier, K. Li and K.E. Nielsen
J. Appl. Polym. Sci., Acc. 01/98
- 98/004 **Second Virial Coefficient of Arborescent Polystyrenes and Its Temperature Dependence**
M. Gauthier, J. Chung, L. Choi and T.T. Nguyen
J. Phys. Chem., Part B, Acc. 02/98
- 98/005 **Melt Rheology of Arborescent Graft Polystyrenes**
M.A. Hempenius, W.F. Zoetelief, M. Gauthier and M. Moller
Macromolecules, Acc. 02/98
- 98/006 **Crystallization Analysis Fractionation (CRYSTAF) of poly(ethylene-co-1-octene) made with single-site-type catalysts: A Mathematical Model for the Dependence of Composition Distribution on Molecular Weight**
J.B.P. Soares, B. Monrabal, J. Nieto and J. Blanco
Macromol. Theory Simul., Acc. 03/98
- 98/007 **Kinetic Model-Based Experimental Design of the Polymerization Conditions in Suspension Copolymerization of Styrene/Divinylbenzene**
E. Vivaldo-Lima, P.E. Wood, A.E. Hamielec and A. Penlidis
J. Poly. Sci., Poly Chem., Acc. 03/98
- 98/008 **Functionalization of Ethylene-Propylene-Diene Terpolymer Via the Alder Ene Reaction**
M.R. Thompson, C. Tzoganakis and G.L. Rempel
Polym. Eng. Sci, Acc. 04/98
- 98/009 **A Parametric Study of the Terminal Maleation of Polypropylene Through an Alder Ene Reaction**
M.R. Thompson, C. Tzoganakis and G.L. Rempel
J. Poly. Sci., Poly. Chem., Acc. 04/98

- 98/010 **Hydrosilylation of Terminal Double Bonds in Polypropylene Through Reactive Processing**
H. Malz and C. Tzoganakis
Polym. Eng. and Sci., Acc. 04/98
- 98/011 **Measurements and Modelling of PS/Supercritical CO₂ Viscosities**
M. Lee, C.B. Park and C. Tzoganakis
Polym. Eng. and Sci., Acc. 04/98
- 98/012 **Response Surface Analysis of Average Residence Times in a co-rotating Twin Screw Extruder**
D. Strutt, C. Tzoganakis and T.A. Duever
J. Reinforced Plastics and Composites, Acc. 03/98
- 98/013 **Use of DOE for Designing Formulations for Direct Injection Foams**
T.A. Duever, C. Mahabir, R. Janiczak and J. Lee
Proceedings of the Annual Technical Meeting of the Society of Plastic Engineers (ANTEC '98), p. 2986-2990, 1998.
- 98/014 **The Refractive Index Increment for a Poly- α -Methylstyrene at 633 nm in Tetrahydrofuran**
N.T. McManus and A. Penlidis
J. Appl. Polym. Sci., Acc. 04/98
- 98/015 **A Critical Examination of Polyethylene Molecular Weight Distribution Control Through the Combination of Soluble Metallocene/Methylalumoxane Catalysts**
L. G'Agnillo, J.B.P. Soares and A. Penlidis
Polymer International, Acc. 05/98
- 98/016 **Recipes for Synthesizing Polyolefins with Tailor-Made Molecular Weight, Polydispersity Index, Long-Chain Branching Frequencies, and Chemical Composition Using Combined Metallocene Catalyst Systems in a CSTR at Steady-State**
D. Beigzadeh, J.B.P. Soares and A.E. Hamielec
J. Appl. Polym. Sci., Acc: 05/98
- 98/017 **Characterization of homogeneous ethylene/1-octene copolymers made with a single-site catalyst. CRYSTAF analysis and calibration**
B. Monrabal, J. Blanco, J. Nieto and J.B.P. Soares
J. Polym. Sci.: Part B: Polym. Phys., Acc. 06/98
- 98/018 **Synthesis of tailor-made polyethylene through the control of polymerization conditions using selectively combined metallocene catalysts in supported system**
J.D. Kim, J.B.P. Soares and G.L. Rempel
J. Polym. Sci.: Part A: Polym. Chem., Acc. 06/98
- 98/019 **Modifying the prediction equation for nonlinear model-based predictive control**
R.K. Mutha, W.R. Cluett and A. Penlidis
Automatica, Acc. 06/98

- 98/020 **A second look at modelling the multiplicity of active site types of Ziegler-Natta catalysts with Flory's and Stockmayer's distributions**
J.B.P. Soares
Polym. React. Eng., Acc. 07/98
- 98/021 **Chemical modification of poly(methylphenylsiloxane)**
J. Chung, L.M. Killam, M. Gauthier
J. Polym. Sci., Part A:, Polym. Chem., Acc. 08/98
- 98/022 **Calculation of the particle size distribution in suspension polymerization using a compartment-mixing model**
E. Vivaldo-Lima, P.E. Wood, A.E. Hamielec and A. Penlidis
Can. J. Chem. Eng., Acc. 08/98
- 98/023 **Manufacturing of polyolefins with combined metallocene catalysts**
J.B.P. Soares, A. Penlidis, J.D. Kim, D. Beigzadeh, L. D'Agnillo
Eighth International Business Forum on Specialty Polyolefins, Acc. 08/98
- 98/024 **Model discrimination via designed experiments: discriminating between the terminal and penultimate models on the basis of weight average chain length**
R. Landry, T.A. Duever and A. Penlidis
Polym. React. Eng., Acc. 08/98
- 98/025 **High temperature bulk copolymerization of butyl acrylate/methyl methacrylate: reactivity ratio estimation**
N.T. McManus, M.A. Dubé and A. Penlidis
Polym React. Eng., Acc. 09/98
- 98/026 **A mechanism for electropolymerization of 2-vinylpyridine coatings on metal surfaces**
X. Ling, M.D. Pritzker, C.M. Burns and J.J. Byerley
Macromolecules, Acc. 10/98
- 98/027 **Observations on styrene-hydroxyethyl acrylate and styrene-hydroxyethyl acrylate-ethyl acrylate polymerizations**
N.T. McManus, J.D. Kim and A. Penlidis
Polymer Bulletin, Acc. 11/98
- 98/028 **High-density polyethylene fractionation with supercritical propane**
L.J.D. Britto, J.B.P. Soares, A. Penlidis and V. Krukoniš
J. Polym. Sci., Part B: Polym. Phys., Acc 11/98
- 98/029 **Polyolefin analysis by single-step crystallization fractionation**
L.J.D. Britto, J.B.P. Soares, A. Penlidis and B. Monrabel
J. Polym. Sci., Part B: Polym. Phys., Acc 11/98
- 98/030 **Monitoring the hydrophobic interactions of internally pyrene-labeled poly(ethylene oxide)s in water by fluorescence spectroscopy**
S. Lee and J. Duhamel
Macromol., Acc. 10/98

- 98/031 **Analysis of mixing during melt-melt blending in twin screw extruders using reactive polymer tracers**
G. Shearer and C. Tzoganakis
Polym. Eng. & Sci., Acc. 11/98
- 98/032 **Cyclic potential sweep electrolysis for formation of poly(2-vinylpyridine) coatings**
X. Ling, M.D. Pritzker, C.M. Burns and J.J. Byerley
J. Appl. Electrochemistry, Acc. 12/98
- 98/033 **A hierarchical data analysis of a replicate experiment in polyethylene synthesis with high-temperature gel permeation chromatography**
L. D'Agnillo, J.B.P. Soares and A. Penlidis
Polym. React. Eng., Acc. 12/98

1997

- 97/001 **The Chemical Composition Component of the Distribution of Chain Length and Long Chain Branching for Copolymerization of Olefins and Polyolefin Chains Containing Terminal Double-Bonds**
J.B.P. Soares and A. E. Hamielec
Macromol. Theory Simul., Acc. 01/97
- 97/002 **Mathematical Modelling of Multicomponent Chain-Growth Polymerizations in Batch, Semi-Batch and Continuous Reactors: A Review**
M.A. Dubé, J.B.P. Soares, A. Penlidis and A.E. Hamielec
Ind. Eng. Chem. Res., Acc. 01/97
- 97/003 **A Novel Solution of Saito's Integral Equation for Random Scission--Application on the Visbreaking of Isotactic Polypropylene**
J.B.P. Soares, A. Shouli and A.E. Hamielec
Polymer Reaction Engineering, 5 (1 & 2), 25-44 (1997)
- 97/004 **An Updated Review on Suspension Polymerization**
E. Vivaldo-Lima, P.E. Wood, A.E. Hamielec and A. Penlidis
Ind. Eng. Chem. Res., Acc. 02/97
- 97/005 **Terminal Functionalization of Polypropylene via the Alder Ene Reaction**
M. Thompson, C. Tzoganakis and G.L. Rempel
Polymer, Acc. 03/97
- 97/006 **A Kinetic Investigation of the Copolymerization of Acrylonitrile and Vinyl Acetate in Bulk**
N.T. McManus, A. Penlidis and G.L. Rempel
Developments in Chemical Engineering and Mineral Processing, Acc. 08/97
- 97/007 **On-Line Nonlinear Model-Based Estimation and Control of a Polymer Reactor**
R.K. Mutha, W.R. Cluett and A. Penlidis
AIChE J., Acc. 08/97
- 97/008 **Issues in Nonlinear Parameter Estimation and Multivariate Model Discrimination: Applications in Polymer Reaction Engineering**
T.A. Duever and A. Penlidis
Applied Mathematics and Computer Science, Acc. 09/97
- 97/009 **Case Studies and Literature Review on the Estimation of Copolymerization Reactivity Ratios**
A.L. Polic, T.A. Duever and A. Penlidis
J. Poly. Sci., Poly. Chem., Acc. 10/97
- 97/010 **Metallocene Catalysed Polymerization--Industrial Technology**
A.E. Hamielec and J.B.P. Soares
Polypropylene: An A-Z Reference (in print)
Editor: J. Karger-Kocsis, Publisher: Chapman & Hall

- 97/011 **Mathematical Modelling of Propylene Polymerization**
J.B.P. Soares and A.E. Hamielec
Polypropylene: An A-Z Reference (in print)
Editor: J. Karger-Kocsis, Publisher: Chapman & Hall
- 97/012 **Study of Long-Chain Branching in Ethylene Polymerization**
D. Beigzadeh and J.B.P. Soares
Polymer Reaction Engineering 5 (3), 141-180
- 97/013 **Innovative Ways of Teaching Polymerization Reaction Engineering--Exchanging Information Between University and Industry**
J.B.P. Soares, A. Penlidis and A.E. Hamielec
Chemical Engineering Education (in print) Winter 1998 issue
- 97/014 **Experimental Methods in Polymer Characterization**
J.B.P. Soares and A. E. Hamielec
Experimental Methods in Polymer Characterization (in print)
Editor: R.A. Pethrick and R.S. Stein, Publisher: John Wiley and Sons
- 97/015 **A Kinetic Study of Propylene Polymerization Using Cp_2ZrCl_2 /Methylalumoxane Catalysts**
J. Huang and G.L. Rempel
Polymer Reaction Engineering 5 (3), 141-180
- 97/016 **Free Radical Polymerization--An Elegant Method of Solving the Population Balance Equations with Chain Transfer to Polymer**
S. Thomas, A.E. Hamielec and J.B.P. Soares
Polymer Reaction Engineering 5 (4), 183-204
- 97/017 **Controlling Molecular Weight Distributions of Polyethylene by Combining Soluble Metallocene/MAO Catalysts**
L. D'Agnillo, J.B.P. Soares, A. Penlidis
J. Polym. Sci, Part A: Polym. Chem., Acc: October 1997
- 97/018 **Effect of Operating Conditions on the Molecular Weight Distribution of Polyethylene Synthesized by Soluble Metallocene/Methylalumoxane Catalysts**
L. D'Agnillo, J.B.P. Soares, A. Penlidis
Macromol. Chem. Phys., Acc: October 1997
- 97/019 **Extrusion of PE/PS Blends with Supercritical Carbon Dioxide**
M. Lee, C. Tzoganikis and C.B. Park
Polym. Eng. Sci., Acc. November 1997

1996

- 96/001 **Polymerization Reaction Engineering--Metallocene Catalysts**
A.E. Hamielec and J.B.P. Soares
Progress in Polymer Science Chemistry, Acc. 01/96
- 96/002 **An Experimental Verification of Statistical Discrimination Between the Terminal and Penultimate Copolymerization Models**
A.L. Burke, T.A. Duever and A. Penlidis
Journal of Polymer Science, Part A: Polymer Chemistry, Acc. 02/96
- 96/003 **Catalytic Chain transfer in Polymerization of Acrylamide**
A. Martchenko, T. Bremner and K.F. O'Driscoll
European Polymer Journal, Acc. 03/96
- 96/004 **Copolymerization of Olefins in a Series of Continuous Stirred-Tank Slurry-Reactors Using Heterogeneous Ziegler-Natta and Metallocene Catalysts: I. General Dynamic Mathematical Model**
J.B.P. Soares and A.E. Hamielec
Polymer Reaction Engineering Journal, Acc. 04/96
- 96/005 **A New Methodology for Studying Multiple-Site-Type Catalysts for the Copolymerization of Olefins**
J.B.P. Soares, R.F. Abbott, J.N. Willis, X. Liu
Macromol. Chem. Phys., Acc. 07/96
- 96/006 **Discriminating Between the Terminal and Penultimate Models Using Designed Experiments: An Overview**
A.L. Burke, T.A. Duever and A. Penlidis
Ind. Eng. Chem. Res., Acc. 08/96
- 96/007 **Experimental and Simulation Studies on Ethyl Acrylate Polymerization**
J. Gao, N.T. McManus and A. Penlidis
Macromol. Chem. Phys., Acc. 08/96
- 96/008 **Nonlinear Model-Based Predictive Control of Control Nonaffine Systems**
R.K. Mutha, W.R. Cluett and A. Penlidis
Automatica, Acc. 08/96
- 96/009 **Kinetic Parameter Estimation in Peroxide Initiated Degradation of Polypropylene**
C. Huang, T.A. Duever and C. Tzoganakis
Polymer Reaction Engineering, Acc. 08/96
- 96/010 **Reactive Extrusion of Polypropylene with Pulsed Peroxide Addition: Process and Control Aspects**
S.B. Dickson, C. Tzoganakis and H. Budman
I & EC Research, Acc. 08/96
- 96/011 **A New Multirate Measurement Based Estimator: Emulsion Copolymerization Batch Reactor Case Study**
R.K. Mutha, W.R. Cluett and A. Penlidis
Ind. Eng. Chem. Res., Acc. 09/96

- 96/012 **Optimal Sensor Selection for Copolymerization Processes**
A. Penlidis and T.A. Duever
Macromol. Chem. Phys., Macromol. Symp., Acc. 09/96
- 96/013 **Emulsion Terpolymerization of Butyl Acrylate/Methyl Methacrylate/Vinyl Acetate: Experimental Results**
M. A. Dubé and A. Penlidis
J. Poly. Sci., Poly. Chem., Acc. 10/96
- 96/014 **Analysis and Control of the Molecular Weight and Chemical Composition Distributions of Polyolefins Made With Metallocene and Ziegler-Natta Catalysts**
J.B.P. Soares, J.D. Kim and G.L. Rempel
Ind. Eng. Chem. Res., Acc. 10/96
- 96/015 **Mathematical Modelling of Emulsion Copolymerization of Acrylonitrile/Butadiene**
M.A. Dubé and A. Penlidis
Ind. Eng. Chem. Res., Acc. 10/96
- 96/016 **A Study of Extrudate Distortion in Controlled-Rheology Polypropylenes**
J.J. Baik and C. Tzoganakis
Polymer Engineering Science, Acc. 10/96
- 96/017 **Free Radical Hydrosilylation of Polypropylene**
G. Shearer and C. Tzoganakis
J. Appl. Poly. Sci., Acc. 11/96
- 96/018 **Injection Molding of LDPE/BaSO₄ Blends: Mold Filling Studies**
G. Shearer, C. Tzoganakis, A. Penlidis and G.L. Rempel
International Polymer Processing, Acc. 11/96
- 96/019 **Choosing the Right Model: Case Studies on the Use of Statistical Model Discrimination Experiments**
A.L. Burke, T.A. Duever and A. Penlidis
Can. J. Chem. Eng., Acc. 12/96

1995

- 95/001 **Emulsion Polymerization of Supermicron, Monodisperse Acrylic Copolymer Particles with Core-Shell Structures**
K.J. O'Callaghan, A.J. Paine and A. Rudin
J. Poly. Sci., Part A: Poly. Chem., Acc. 01/95
- 95/002 **LLDPE/PP Blends in Tubular Film Extrusion: Recycling of Mixed Films**
J.W. Teh, A. Rudin, S.Y. Yuen, J.C. Keung and D.M. Pauk
J. Plastics Film and Sheeting, Acc. 01/95
- 95/003 **The Penultimate Unit Effect in Radical Copolymerization**
A.D. Jenkins and K.F. O'Driscoll
J. Poly. Sci., Acc. 01/95
- 95/004 **A Systematic Approach to the Study of Multicomponent Polymerization Kinetics: The Butyl Acrylate/Methyl Methacrylate/Vinyl Acetate Example. III. Emulsion Homo- and Co-polymerization in a Pilot Plant Reactor**
M.A. Dubé and A. Penlidis
Polymer International, Acc. 03/95
- 95/005 **Advanced State Space Analysis Using Computer Algebra**
A.B. Ogunye and A. Penlidis
American Control Conf. Proceedings, (ACC, June 21-23, 1995, Seattle, WA) Acc. 05/95
- 95/006 **A Kinetic Investigation of Styrene/Ethyl Acrylate Copolymerization**
N.T. McManus and A. Penlidis
J. Poly. Sci. Acc. 08/95
- 95/007 **A Systematic Approach to the Study of Multicomponent Polymerization Kinetics: The Butyl Acrylate/Methyl Methacrylate/Vinyl Acetate Example. IV. Optimal Bayesian Design of Emulsion Terpolymerization Experiments in a Pilot Plant Reactor**
M.A. Dubé, A. Penlidis and P.M. Reilly
J. Poly. Sci., Poly. Chem., Acc. 09/95
- 95/008 **Effect of Reactor Residence Time Distribution on the Size Distribution of Polymer Particles Made with Heterogeneous Ziegler-Natta and Supported Metallocene Catalysts. A Generic Mathematical Model**
J.B.P. Soares and A.E. Hamielec
Macromol. Theory Simul., Acc: 09/95
- 95/009 **A Comprehensive Simulator/Database Package for Reviewing Free-Radical Homopolymerizations**
J. Gao and A. Penlidis
J. Macromol. Sci.-Revs., Acc: 09/95

- 95/010 **Bivariate Chain Length and Long Chain Branching Distribution for Copolymerization of Olefins and Polyolefin Chains Containing Terminal Double-Bonds**
J.B.P. Soares and A.E. Hamielec
Macromol. Theory Simul., Acc. 11/95
- 95/011 **A Hierarchical Data Analysis of a Replicate Experiment in Emulsion Terpolymerization**
M.A. Dubé and A. Penlidis
AIChE J., Acc: 11/95
- 95/012 **Effect of Hydrogen and of Catalyst Prepolymerization with Propylene on the Polymerization Kinetics of Ethylene with a Non-Supported Heterogeneous Ziegler-Natta Catalyst**
J.B.P. Soares and A.E. Hamielec
Polymer, Acc: 12/95
- 95/013 **The Effect of Benzyl Alcohol on Pulsed Laser Polymerization of Styrene and Methylmethacrylate**
K.F. O'Driscoll and M.J. Monteiro
J. Poly. Sci., Part A, Poly. Chem., Acc. 12/95
- 95/014 **Kinetics of Propylene Polymerization with a Non-Supported Heterogeneous Ziegler-Natta Catalyst--Effect of Hydrogen on Rate of Polymerization, Stereoregularity, and Molecular Weight Distribution**
J.B.P. Soares and A.E. Hamielec
Polymer, Acc. 12/95
- 95/015 **Metallocene/Aluminoxane Catalysts for Olefin Polymerization. A Review**
J.B.P. Soares and A.E. Hamielec
Polym. React. Eng., 3 (2), 131-200, 1995
- 95/016 **General Dynamic Mathematical Modelling of Heterogeneous Ziegler-Natta and Metallocene Catalyzed Copolymerization with Multiple Site Types and Mass and Heat Transfer Resistances**
J.B.P. Soares and A. E. Hamielec
Polym. React. Eng., 3 (3), 261-364, 1995
- 95/017 **Deconvolution of Chain-Length Distributions of Linear Polymers Made by Multiple-Site-Type Catalysts**
J.B.P. Soares and A.E. Hamielec
Polymer, 36, (11), 1995
- 95/018 **Analyzing TREF Data by Stockmayer's Bivariate Distribution**
J.B.P. Soares and A.E. Hamielec
Macromol. Theory Simul., 4, 305-324, 1995
- 95/019 **Temperature Rising Elution Fractionation of Linear Polyolefins**
J.B.P. Soares and A.E. Hamielec
Polymer, 36, (8), 1639-1654, 1995

95/020

State Space Computations Using Maple V

A.B. Ogunye and A. Penlidis

IEEE Control Systems, Acc. 12/95

1994

- 94/001 **Drying Behaviour of Acrylic Latexes**
S.T. Eckersley and A. Rudin
Progress in Organic Coatings, Acc. 01/94
- 94/002 **The Film Formation of Acrylic Latexes: A Comprehensive Model of Film Coalescence**
S. T. Eckersley and A. Rudin
J. Appp. Poly. Sci., Acc. 02/94
- 94/003 **Model Discrimination via Designed Experiments: Discriminating Between the Terminal and Penultimate Models Based on Triad Fraction Data**
A. L. Burke, T. A. Duever and A. Penlidis
Macromol. Chem. Phys., Acc. 03/94
- 94/004 **Computation of System Gramians and Balanced Realizations Using Maple V**
A.B. Ogunye and A. Penlidis
Can. J. Chem. Eng., Acc. 04/94
- 94/005 **Polymer Reaction Engineering: From Reaction Kinetics to Polymer Reactor Control**
A. Penlidis
Can. J. Chem. Eng., Acc. 04/94
- 94/006 **Injection Molding of LDPE/BaSO₄ Blends for Medical Applications**
K. Amellal, C. Tzoganakis, G.L. Rempel and A. Penlidis
ANTEC/SPE, San Francisco, Acc. 05/94
- 94/007 **Reactive Extrusion of PP-g-AA With Alkyl Amines**
X.C. Wang, C. Tzoganakis and G.L. Rempel
ANTEC/SPE, San Francisco, Acc. 05/94
- 94/008 **Optimization of Polymerization Reactor Operation: Review and Case Studies with the End-Point Collocation Method**
D. Tieu, W.R. Cluett and A. Penlidis
Polym. React. Eng. J., Acc. 05/94
- 94/009 **A Comparison of Collocation Methods for Solving Dynamic Optimization Problems**
D. Tieu, W.R. Cluett and A. Penlidis
Computers and Chem. Eng., Acc. 05/94
010 A Systematic Approach to the Study of Multicomponent Polymerization Kinetics: The Butyl Acrylate/Methyl Methacrylate/Vinyl Acetate Example I. Bulk Copolymerization
M.A. Dubé and A. Penlidis
Polymer, Acc. 06/94

- 94/011 **A Systematic Approach to the Study of Multicomponent Polymerization Kinetics: The Butyl Acrylate/Methyl Methacrylate/Vinyl Acetate Example 2. Bulk (and Solution) Terpolymerization**
M.A. Dubé and A. Penlidis
Macromol. Chem. Phys., Acc. 08/94
- 94/012 **Ethylene-Vinyl Acetate Emulsion Copolymerization: Monomer Partitioning and Preliminary Modelling**
P.J. Scott, A. Penlidis and G.L. Rempel
Polym. React. Eng. J., Acc. 10/94
- 94/013 **Control of Surfactant Level in Starve Fed Emulsion Polymerizations. 3. Langmuir Site Adsorption Model for Competitive Adsorption of in situ and Added Surfactants in the Presence of Anchored Groups**
A.J. Paine, Z. Wang and A. Rudin
J. Colloid and Interface Sci., Acc. 11/94
- 94/014 **Correction for Interdetector Volume in Size Exclusion Chromatography (SEC)**
M.G. Pigeon and A. Rudin
J. Appl. Poly. Sci., Acc. 12/94
- 94/015 **The Effect of Antioxidant on Peroxide Modification of LLDPE**
T. Bremner and A. Rudin
J. Appl. Poly. Sci., Acc. 12/94
- 94/016 **Model Discrimination Via Designed Experiments: Discrimination Between the Terminal and Penultimate Models Based on Rate Data**
A.L. Burke, T.A. Duever and A. Penlidis
Chem. Eng. Sci., Acc. 12/94
- 94/017 **Characterisation of Low Molecular Weight Polymers Using Matrix Assisted Laser Desorption Time-of-Flight Mass Spectrometry**
B. Thomson, K. Suddaby, A. Rudin and G. Lajoie
Eur. Poly. J., Acc. 12/94
- 94/018 **Eliminating Lag Time Estimation in Multi-Detector Sec: Calibrating Each Detector Independently**
K.G. Suddaby, R. A. Sanayei, K. F. O'Driscoll and A. Rudin
ACS Symp. Series 247, Acc. 1994
- 94/019 **The Interpretation and Use of Fracture Surface Morphology--A Special Case for Polystyrene**
E.K.C. Lee, A. Rudin and A. Plumtree
J. Mat. Sci., Acc. 1994
- 94/020 **Estimation of Hansen Solubility Parameters for Hydroxyethyl and Hydroxypropyl Cellulose Through Molecular Simulation**
P. Choi, T.A. Kavassalis and A. Rudin
I and EC Res., Acc. 1994

- 94/021 **Pulsed Laser Copolymerization of Styrene and Maleic Anhydride**
R.A. Sanayei and K.F. O'Driscoll
Macromolecules, Acc. 1994
- 94/022 **Reactive Extrusion of Acrylic Acid Grafted Polypropylene with Hexadecylamine**
X.C. Wang, C. Tzoganakis and G.L. Rempel
Polym. Eng. Sci., Acc. 1994
- 94/023 **A Rheological Evaluation of Linear and Branched Controlled-Rheology Polypropylenes**
C. Tzoganakis
Can. J. of Chem. Eng., Acc. 1994
- 94/024 **Surfactant Analysis by Matrix Assisted Laser Desorption Time-of-Flight Mass Spectrometry**
B. Thomson, Zhiyu Wang, A. Paine. A. Rudin and G. Lajoie
J. of Amer. Oil Chem. Soc., Acc. 1994
- 94/025 **A Novel Way to Study the Initial Stages of Soap-Free Emulsion Polymerization: The Intercalation of Polystyrene Oligomers into Hydrotalcite**
G.T.D. Shouldice, P.Y. Choi, B.E. Koene, L.F. Nazar and A. Rudin
J. of Poly. Sci., Part A: Poly. Chem., Acc. 1994
- 94/026 **Injection Molding of Medical Plastics: A Review**
K. Amellal, C. Tzoganakis, A. Penlidis and G.L. Rempel
Poly. Tech., **13**, (4) 314-322 (1994)

1993

- 93/001 **Latex Rubber Modified Polystyrene as a Model System for Hips: Effect of Rubber Particle Parameters**
D.G. Cook, A. Plumtree, A. Rudin
Plastics, Rubber and Composites Processing and Applications; Acc. 01/93
- 93/002 **Practical Aspects of the Emulsifier-Free Emulsion Polymerization of Styrene**
G.T.D. Shouldice, G.A. Vandezande, A. Rudin
Eur. Poly. J., Acc. 04/93
- 93/003 **Effect of Impurities on Continuous Solution Methyl Methacrylate Polymerization Reactors: Open-loop Process Identification and Closed-Loop Real-Time Control Results**
D.C.H. Chien, A. Penlidis, A.D. Lawrence
IEEE Control Applications (ref. conf. proc.) Vancouver, September 13-16, 1993; Acc. 05/93
- 93/004 **A Review of Polyethylene-Polypropylene Blends and Their Compatibilization**
J.W. Teh, A. Rudin, J.C. Keung
Adv. in Poly. Tech.; Acc. 05/93
- 93/005 **Revisiting the Design of Experiments for Copolymer Reactivity Ratio Estimation**
A.L. Burke, T.A. Duever, A. Penlidis
J. Poly. Sci, Poly. Chem.; Acc. 05/93
- 93/006 **Thermal Behavior and Morphology of Rubber-Modified Epoxies**
W.N. Kim, C.E. Park, C.M. Burns
J. Appl. Poly. Sci.; Acc. 05/93
- 93/007 **Branching Measurement by Analytical Tref; A Fully Quantitative Technique**
M.G. Pigeon, A. Rudin
J. Appl. Poly. Sci.; Acc. 06/93
- 93/008 **Compatibilization of Polystyrene-Polyethylene Blends Through Reactive Processing**
J.W. Teh, A. Rudin
Adv. in Poly. Blends and Alloy Tech. V; Acc. 06/93
- 93/009 **Blown-Film Extrusion of Post-Consumer Recycled LLDPE Film**
S.J. Hébert, C. Tzoganakis, J. Perdikoulis
J. Plastic Film and Sheeting; Acc. 08/93
- 93/010 **Ethylene-Vinyl Acetate Semi-Batch Emulsion Copolymerization: Use of Factorial Experiments for Process Optimization**
P.J. Scott, A. Penlidis, G.L. Rempel, A.D. Lawrence
J. Poly. Sci., Poly. Chem.; Acc. 08/93

- 93/011 **Monte Carlo Simulation of Pulsed Laser Polymerization**
K.F. O'Driscoll, M.E. Kuindersma
Makromol. Chem., Theory Simul.; Acc. 09/93
- 93/012 **Effect of Impurities on Continuous Solution Methyl Methacrylate Polymerization Reactors: I. Open-Loop Process Identification Results**
D.C.H. Chien, A. Penlidis
Poly. React. Engg.; Acc. 10/93
- 93/013 **Novel Composite Latex Particles for use in Coatings**
G.A. Vandezande, A. Rudin
J. Coatings. Tech.; Acc. 10/93
- 93/014 **A Study of Crystallization Behavior of Polypropylene, Polyethylene, and Their Blends**
J.W. Teh, H. Blom, A. Rudin
Polymer; Acc. 10/93
- 93/015 **Model Discrimination via Designed Experiments: Discriminating Between the Terminal and Penultimate Models on the Basis of Composition Data**
A. L. Burke, T.A. Duever, A. Penlidis
Macromolecules; Acc. 10/93
- 93/016 **Effect of Impurities on Continuous Solution Methyl Methacrylate Polymerization Reactors: II. Closed-Loop Real-Time Control**
D.C.H. Chien, A. Penlidis
Chem. Eng. Sci.; Acc. 11/93
- 93/017 **Reactor Design Considerations for Gas-Liquid Emulsion Polymerizations: The Ethylene-Vinyl Acetate Example**
P.J. Scott, A. Penlidis, G.L. Rempel
Chem. Eng. Sci.; 11/93
- 93/018 **Residence Time Distribution in Spiral Mandrel Die Design**
J. Perdikoulis, C. Tzoganakis, A. Penlidis
Proceedings of TAPPI, Polymers, Laminations and Coatings Conf., Chicago, 393-395 (1993)
- 93/019 **Semi-Batch Emulsion Polymerization with a Gaseous Comonomer: Ethylene-Vinyl Acetate Case Study**
P.J. Scott, A. Penlidis and G. L. Rempel
Trends in Chemical Engineering (book), Acc. 09/93

1992

- 92/001 **Modelling Copolymerization Kinetics**
K.F. O'Driscoll
Makromol. Chem., Makromol. Symp. 53, 53-62 (1992)
- 92/002 **Catalytic Inhibition in Free Radical Polymerizations**
K.G. Suddaby, K.F. O'Driscoll, A. Rudin
J. Poly Sci., Part A: Poly. Chem., 30, 643-648 (1992)
- 92/003 **Prediction of Hydrodynamic Properties of Polymer Solutions**
J.W. Qian, and A. Rudin
Eur. Poly. J., 28 (7), 733-738 (1992)
- 92/004 **Prediction of Thermodynamic Properties of Polymer Solutions**
J.W. Qian, and A. Rudin
Eur. Poly. J., 28 (7), 725-732 (1992)
- 92/005 **Synthesis of Core Shell Latexes by Redox Initiation at Ambient Temperatures**
S. Lee and A. Rudin
J. Poly Sci, Poly. Chem. Ed., 30, 2211-2216 (1992)
- 92/006 **Kinetics of Styrene and Methylmethacrylate Polymerizations in a Starved Feed Reactor**
K. F. O'Driscoll and A. F. Burczyk
Poly. Reaction Engg., 1, 111-144, 1992
- 92/007 **Effects of Polyethylene Molecular Structure on Peroxide Crosslinking of LDPE**
T. Bremner, S. Haridoss and A. Rudin
Poly. Engg. and Sci., 32, 14 (1992)
- 92/008 **Extrusion Behavior of Starch Graft Copolymers: Starch-g-Polystyrene and Starch-g-Poly(Methyl Acrylate)**
A. M. Henderson and A. Rudin
Die Angewandte Makromolekulare Chemie, 194, 23-33 (1992)
- 92/009 **The Mechanism of Core-Shell Inversion in Two-Stage Latexes**
S. Lee and A. Rudin
J. Poly Sci., Poly Chem Ed. 30, 865-871 (1992)
- 92/010 **Characterization of Polyolefins by SEC with Low Angle Light Scattering and Continuous Viscometer Detectors**
S. Pang and A. Rudin
Polymer, 33, (9), 1949-1952 (1992)
- 92/011 **Molecular Structure and Melting Behavior of Ethylene-Vinyl Acetate Copolymers**
D. Bugada and A. Rudin
Eur. Pol. J., 28 (3), 219-227 (1992)

- 92/012 **Consistent Values of Rate Parameters in Free Radical Polymerization Systems. Part II: Outstanding Dilemmas and Recommendations**
M. Buback, R.G. Gilbert, G.T. Russell, D.J.T. Hill, G. Moad, K.F. O'Driscoll, J. Shen and M.A. Winnik
J. Poly. Sci. Polym. Chem. Ed., 30, 851-863, 1992
- 92/013 **Effects of Compounding and Extrusion Variables on Degree of Fusion and Impact Strength of PVC Window Profile**
J. Batiste, P. Cho, L.H. deCarvalho, M. Lynch and A. Rudin
J. Vinyl Techn., 14 (1) 43-46 (1992)
- 92/014 **Estimation of the 3-Dimensional Solubility Parameters of Alkyl Phenol Ethoxylates Using Molecular Dynamics**
P. Choi, T.A. Kavassalis and A. Rudin
J. of Colloid and Interface Science, 150 (2) 386-393 (1992)
- 92/015 **Use of Continuous Viscometer and Light Scattering Detectors in Characterization of Polyolefins: Comparisons of Data From Individual and Combined Detectors**
S. Pang and A. Rudin
J. Appl. Poly. Sci., 46, 763-773 (1992)
- 92/016 **Surface Energetics of Films of Surfactant Free Poly(Methyl Methacrylate-co-Butyl Acrylate) Emulsion Polymers**
S.T. Eckersley, R. O'Daiskey and A. Rudin
J. Colloid Interface Sci., 152, 455-464 (1992)
- 92/017 **Crosslinking Reactions in Pigmented Olefinic Polymers**
C. Houde, H.P. Schreiber, A. Rudin
J. Appl. Poly. Sci., 46, 2049-2054 (1992)
- 92/018 **Conformations of Telechelic Ionomers in W/O Microemulsions**
H.-F. Eicke, M. Gauthier, R. Hilfiker, R.P.W.J. Struis and G. Xu
J. Phys. Chem., accept. Jan/92
- 92/019 **Supramicron Polybutyl Acrylate/Polystyrene Core-Shell Latexes**
D.G. Cook, A. Rudin and A. Plumtree
J. Appl. Poly. Sci., accept. Jan/92
- 92/020 **Comparison of Analytical and Preparative TREF Analysis; A Mathematical Approach to Correcting Analytical TREF Data**
M. Pigeon, and A. Rudin
J. of Appl. Poly. Sci., accept. Feb/92
- 92/021 **Polymerization of Propylene Using Supported, Chiral, Ansa-Metallocene Catalysts: Production of Poly(propylene) with Narrow Molecular Weight Distributions**
S. Collins, W. M. Kelly and D. A. Holden
Macromolecules, in press Feb/92

- 92/022 **Electronic Effects in Ziegler-Natta Polymerization of Propylene and Ethylene Using Soluble Metallocene Catalysts**
I-M Lee, W. J. Gauthier, J. M. Ball, B. Iyengar and S. Collins
Organometallics, accept. Feb/92
- 92/023 **The Geometry of 2-Block Partial Least Squares Regression**
A. Phatak, P.M. Reilly, and A. Penlidis
Communications in Statistics, accept. Feb/92
- 92/024 **Single Parameter Universal Calibration Curve**
R. Amin Sanayei, K. F. O'Driscoll and A. Rudin
ACS Symp. Ser., Vol. on "Size Exclusion Chromatography", accept. Mar/92
- 92/025 **Persistence of Regions with High Segmental Density in Polyethylene Melts**
T. Bremner and A. Rudin
J. Poly. Sci. Phys. Part B., accept. Mar/92
- 92/026 **Catalytic Hydrogenation of Diene Polymers: Part II. Kinetic Analysis and Mechanistic Studies on the Hydrogenation of Styrene-Butadiene Copolymers in the Presence of $\text{RhCl}(\text{PPh}_3)_3$**
X. Guo, P.J. Scott and G. L. Rempel
J. Mol. Cat., in press, Mar/92
- 92/027 **Effects of Additions of High Density Polyethylene on the Processability of Linear Low Density Polyethylene**
E. Karbasheski, L. Kale, A. Rudin and W. J. Tchir
J. Appl. Poly. Sci., accept. Apr/92
- 92/028 **Compatibilization of Polystyrene Polyethylene Blend Through Reactive Processing in a Twin Screw Extruder**
J. W. Teh and A. Rudin
Poly. Engg. and Sci., accept. Apr/92
- 92/029 **Homogeneous Catalytic Hydroformylation of Styrene-Butadiene Copolymers in the Presence of $\text{HRh}(\text{CO})(\text{PPh}_3)_3$**
P.J. Scott and G.L. Rempel
Macromol. in press Apr/92
- 92/030 **Homo- and Co-polymerization of Ethylene and Styrene Using TiCl_3 (AA)/Methylaluminumoxane**
R. Mani and C.M. Burns
Macromol. accept. Jul/91
- 92/031 **Polymer Reaction Engineering: Modelling Considerations for Control Studies**
A. Penlidis, S.R. Ponnuswamy, C. Kiparissides and K.F. O'Driscoll
Chem. Eng. J., accept. Jul/91
- 92/032 **The Microstructure of Poly(Cyclopentene) Produced by Polymerization of Cyclopentene with Homogeneous Ziegler-Natta Catalysts**
S. Collins and W. M. Kelly
Macromol. accept. Sep/91

- 92/033 **Ethylene-Vinyl Acetate Semi-Batch Emulsion Copolymerization: Experimental Design and Preliminary Screening Experiments**
P.J. Scott, A. Penlidis and G.L. Rempel
J. Poly. Sci, Poly Chem., accept. May/92
- 92/034 **The Effect of Comonomer Sequence Distribution on TREF Branching Distributions**
E. Karbasheski, L. Kale, A. Rudin, and W.J. Tchir
Poly Engg. and Sci., accept. May/92
- 92/035 **The Use of Latex Rubber Modified Polystyrene as a Model System for Hips: Effect of Particle Size**
D.G. Cook, A. Plumtree, A. Rudin
J. Appl. Poly. Sci., accept. Jun/92
- 92/036 **Copolymerization of Ethylene and Vinylcyclohexane Using Soluble Ziegler-Natta Catalysts**
R. Mani and C. M. Burns
Polymer, accept. Jul/92
- 92/037 **Determination of Molecular Weight Distributions of Copolymers by SEC**
A. Rudin
"Size Exclusion Chromatography Handbook", C.S. Wen. ed. (Marcel Dekker), accept. Aug/92
- 92/038 **Mechanism of Shear Modification of Low Density Polyethylene**
M. van Prooyen, T. Bremner and A. Rudin
Polym. Engg. and Sci., accept. Aug/92
- 92/039 **The Effect of Plasticization and pH on Film Formation of Acrylic Latexes**
S. T. Eckersley and A. Rudin
J. Appl. Poly. Sci., accept. Aug/92
- 92/040 **The Physical Characteristics of PPG/PMMA/LiCF₃SO₃ Polymer Electrolyte Blends Including Morphology**
T. Mani, R. Mani and J.R. Stevens
Solid State Ionics, accept. Aug/92
- 92/041 **Ion Association Effects and Ionic Conductivity in Polymer Electrolytes**
I. Albinsson, B.-E. Mellander and J. R. Stevens
Solid State Ionics, accept. Aug/92
- 92/042 **A New Approach to Establishing Universal Calibration Curves for Size Exclusion Chromatography**
R. Amin Sanayei, S. Pang and A. Rudin
Polymer, accept. Sept/92
- 92/043 **Rheological and Morphological Studies of a Thermotropic Liquid Crystalline Polymer with Low Temperature Transitions**
D. Drappel, B.W.A. Yeung, P.R. Sundararajan and A. Rudin
J. Rheol., accept. Oct/92

- 92/044 **SEC Assessment of Long Chain Branch Frequency in Polyethylenes**
S. Pang and A. Rudin
ACS Books, accept. Oct/92
- 92/045 **High Speed Tensile Performance and Fractography of Acrylic Latex Films**
S.T. Eckersley, A. Plumtree and A. Rudin
J. Appl. Poly. Sci., accept. Aug/92
- 92/046 **Size Exclusion Chromatographic Measurement of PVC Molecular Weight Distributions**
S. Pang and A. Rudin
J. Appl. Poly. Sci., accept. Oct/92
- 92/047 **Peroxide Modification of Linear Low Density Polyethylene: A Comparison of Dialkyl Peroxides**
T. Bremner and A. Rudin
J. Poly. Sci., accept. Nov/1992
- 92/048 **An Approach to Interval Estimation in Partial Least Squares Regression**
A. Phatak, P.M. Reilly and A. Penlidis
Analytical Chimica Acta, accept. Nov/92
- 92/049 **Ternary Blends of Poly(amide-6)/Polycarbonate/Poly (ϵ -Caprolactone)**
W-N. Kim, C-E. Park and C.M. Burns
J. Appl. Poly. Sci., accept. Nov/92
- 92/050 **Characterization of Non-Homogeneous Polymers with Size Exclusion Chromatography by Implementing an On-line Viscometer**
R. Amin Sanayei, K.G. Suddaby and A. Rudin
Die Makromol., accept. Nov/92
- 92/051 **Ethylene-Vinyl Acetate Semi-Batch Emulsion Copolymerization: Use of Factorial Experiments for Improved Process Understanding**
P.J. Scott, A. Penlidis and G.L. Rempel
J. Poly. Sci. PCE, accept. Dec/92
- 92/052 **Fractal Analysis of the Sharkskin Phenomenon in Polymer Melt Extrusion**
C. Tzoganakis, B.C. Price and S.G. Hatzikiriakos
J. Rheology, accept Dec/92
- 92/053 **The Effect of Processing on Rheological and Molecular Characteristics of a LDPE**
W. Baker, A. Rudin, H.P. Schreiber and M. El-Kindi
P. Eng. Sci., accept. Dec/92

1991

- 91/001 **Copolymerization Propagation Kinetics of Styrene with Alkyl Acrylates**
T. P. Davis and K. F. O'Driscoll, M. C. Piton and M. A. Winnik
Poly. Intl. 24, 65-70 (1991)
- 91/002 **A Moderately Water-Soluble Azo Initiator for Emulsion Polymerizations**
S. Lee, D. Mackay and A. Rudin
J. Appl. Polym. Sci., 42, 3075-3076 (1991)
- 91/003 **Melt Spinning of Shear Modified Plasticized Polystyrene**
J. W. Qian and A. Rudin
J. Appl. Polym. Sci., 42, 973-977 (1991)
- 91/004 **The Chain Length Dependence of the Glass Transition Temperature**
K. O'Driscoll and R. Amin Sanayei
Macromol. 24, 4479-4480 (1991)
- 91/005 **Catalytic Chain Transfer in Polymerization of Methyl Methacrylate. II. Continuous Synthesis and Purification of Macromer**
K.G. Suddaby, R. Amin Sanayei, A. Rudin and K.F. O'Driscoll
J. Appl. Poly. Sci., 43, 1565-1575 (1991)
- 91/006 **A Kinetic Investigation of Butyl Acrylate Polymerization**
M.A. Dubé, K. Rilling and A. Penlidis
J. Appl. Poly. Sci., 43, 2137-2145 (1991)
- 91/007 **Educational Applications of a Free-Radical Polymerization Simulator**
M.E. Kuindersma, A. Penlidis and K.F. O'Driscoll
ASEE Conf. New Orleans, LA, June 16-19, 1464-1468 (1991)
- 91/008 **A Microcomputer Program for Estimation of Copolymerization Reactivity Ratios**
M. A. Dubé, R. Amin Sanayei, A. Penlidis, K.F. O'Driscoll and P.M. Reilly
J. Poly. Sci. Poly. Chem., 29, 703-708 (1991)
- 91/009 **Use of a Modern Polymerization Pilot-Plant for Undergraduate Control Projects**
S.A. Mendoza-Bustos, A. Penlidis and W. R. Cluett
Chem. Eng. Educ., XXV (1), Winter 34-39 (1991)
- 91/010 **A Method for Flexibility Analysis of Continuous Processing Plants**
D.C.H. Chien, P.L. Douglas and A. Penlidis
CJChE, 69, (1), 58-66 (1991)
- 91/011 **Long Range Predictive Control of a Polymerization Reactor**
M.P. Inglis, W.R. Cluett and A. Penlidis
CJChE, 69 (1), 120-129 (1991)
- 91/012 **Control Policies for an Industrial Acetylene Hydrogenation Reactor**
M. W. Brown, A. Penlidis, G. R. Sullivan
CJChE, 69 (1), 152-164 (1991)

- 91/013 **Chemical Modification of Polymers: Catalytic Hydroformylation and Hydroxymethylation of Styrene-Butadiene Copolymers**
F. Sibtain and G.L. Rempel
J. Poly Sci., Part A: Poly. Chem. 29 629-635 (1991)
- 91/014 **Effects of Polymer Structure on the Onset of Processing Defects in LLDPE's**
E. Karbasheski, L. Kale, A. Rudin, H.P. Schreiber, W. J. Tchir
Poly. Eng. and Sci., 31 (22) 1581-1589 (1991)
- 91/015 **Introduction and Overview**
A. Penlidis and T.W. Hoffman
CJChE, 69 (3), (1991)
(Special thematic issue on PRE; entire issue may be of interest)
- 91/016 **Properties and Morphology of Polystyrene and Linear Low Density Polyethylene Polyblend and Polyalloy**
J. W. Teh and A. Rudin
Poly. Engg and Sci., 31, 1033-1042 (1991)
- 91/017 **Further Comments on the Relations Between Melt Flow index Values and Molecular Weight Distributions of Commercial Plastics**
T. Bremner, D.G. Cook, and A. Rudin
J. Appl. Poly. Sci., 43, 1773 (1991)
- 91/018 **Measurement of Particle Size Distributions with a Disc Centrifuge; Data Analysis Considerations**
M. J. Devon, T. Provder and A. Rudin
ACS Adv. in Chem. Ser., 472, 135-153 (1991)
- 91/019 **The Importance of Residence Time Analysis in Coextrusion Die Design**
J. Perdikoulis and C. Tzoganakis
J. of Plastic Film and Sheeting, 7, (2) 118 (1991)
- 91/020 **Entanglement Spacing Variability in Blends of Narrow Molecular Weight Distribution Polystyrenes**
D. K. Potter and A. Rudin
Macromol. 25, 238 (1991)
- 91/021 **Effects of Reaction Variables in the Production of Narrow Particle Size Distribution Vinyl Acetate/Butyl Acrylate Copolymer Latexes (I)**
G.A. Vandezande and A. Rudin
ACS Advances in Chemistry Symposia Series, 492, 134 (1991)
- 91/022 **Effects of Reaction Variables in the Production of Narrow Particle Size Distribution Vinyl Acetate/Butyl Acrylate Copolymer Latexes (II) - Seeded Reactions**
G.A. Vandezande and A. Rudin
ACS Advances in Chemistry Symposia Series, 492, 114 (1991)

91/023

Control of Core-Shell Latex Morphology

S. Lee and A. Rudin

ACS Advances in Chemistry Symposia Series, 492, 234 (1991)

1990

- 90/001 **Copolymerization Propagation Kinetics of Styrene with Alkyl Methacrylates**
T. P. Davis and K. F. O'Driscoll, M. C. Piton and M. A. Winnik
Macromol. 23, 2113-2119 (1990)
- 90/002 **Effects of Latex Particle Morphology on Film Formation**
M. J. Devon, J. Gardon, G. Roberts and A. Rudin
J. Appl. Poly. Sci., 39, 2119 (1990)
- 90/003 **Reactive Extrusion of Poly(vinyl chloride) Compounds with Polyethylene and Ethylene-Vinyl Acetate Copolymers**
P. van Ballegooie and A. Rudin
J. Appl. Poly. Sci., 39, 1097 (1990)
- 90/004 **Effects of Resole Phenol Adhesives on the Crystallinity of Cellulose**
S. So, J.W. Teh, A. Rudin, W. J. Tchir and C. A. Fyfe
J. Apply. Poly. Sci., 39, 531-538 (1990)
- 90/005 **Drawing Behavior of Solution Modified Polyetheylene**
T.M. Malik, P.J. Carreau, H.P. Schreiber, A. Rudin and W. Tchir
Internl. Poly. Process, 5, 42 (1990)
- 90/006 **Analysis of the Formation and Curing Reactions of Resole Phenolics** S. So and A. Rudin
J. Appl. Poly. Sci., 41, 205 (1990)
- 90/007 **Melt Flow Index Values and Molecular Weight Distributions of Commercial Thermoplastics**
T. Bremner, D.G. Cook and A. Rudin
J. Appl. Poly. Sci., 41, 1617 (1990)
- 90/008 **Optimization of a Batch Polymerization Reactor at the Final Stage of Conversion II. Molecular Weight Constraint**
K. F. O'Driscoll and S.R. Ponnuswamy
J. Appl. Poly. Sci. 39, 1299-1308 (1990)
- 90/009 **Adaptive Control of Conversion in a Simulated Solution Polymerization CSTR**
S.A. Mendoza-Bustos, A. Penlidis and W. R. Cluett
Ind. and Eng. Chem. Res., 29 (1), 82-89 (1990)
- 90/010 **Robust Adaptive Process Control of a Polymerization Reactor**
S.A. Mendoza-Bustos, A. Penlidis, and W.R. Cluett
Computers and Chem. Eng., 14 (3), 251-258
- 90/011 **On-line Sensors for Polymerization Reactors**
D.C.H. Chien and A. Penlidis
J. Macromol. Sci.--Revs. Macromol. Chem., C 30 (1), 1-42 (1990)

- 90/012 **The Rate of Copolymerization of Styrene and Methylmethacrylate II. The Gel Effect in Copolymerization**
K.F. O'Driscoll and J. Huang
Eur. Poly. J. 26, 643-647 (1990)
- 90/013 **Copolymerization Kinetics and 4-Methoxystyrene with Methyl Methacrylate and 4-Methoxystyrene with Styrene: A Test of the Penultimate Model**
M. C. Piton and M. A. Winnik, T. P. Davis and K. F. O'Driscoll
J. Poly. Sci., Part A., Poly. Chem., 28, 2097-2106 (1990)
- 90/014 **The Mechanism of Film Formation from Polymer Latexes**
S. T. Eckersley and A. Rudin
J. Coat. Technol., 62 (780), 89-100 (1990)
- 90/015 **A Kinetic Investigation of Styrene/Butyl Acrylate Copolymerization**
M. A. Dubé, A. Penlidis and K. F. O'Driscoll
Can. J. Chem. Eng., 68, 974-987 (1990)
- 90/016 **Fracture Mechanics Parameters for Polystyrene Under High Speed Impact**
D.G. Cook, A. Plumtree and A. Rudin
Poly. Eng. Sci., 30 (10), 593 (1990)
- 90/017 **Modification of High Density Polyethylene by Reaction with Dicumyl Peroxide**
T. Bremner and A. Rudin
Plast. Rubb. Proc. Appl., 13, 61 (1990)
- 90/018 **Compatibility Studies of Blends of Polycarbonate and Poly(ethylene terephthalate)**
W. N. Kim and C. M. Burns
J. Poly. Sci., Part B, Poly Phys., 28, 1409-1429 (1990)
- 90/019 **Chemistry in Adsorbed Monolayers 2. Thermal and Photochemical Grafting Reactions at the Polymer-Filler Interface**
C. E. McGarvey and D. A. Holden
Langmuir, 6 (6), 1123-1132 (1990)
- 90/020 **Generation of Nonrandom Chromophore Distributions by the Photo-Fries Reaction of 2-Naphthyl Acetate in Poly(methyl methacrylate)**
Z. Wang, D. A. Holden and F.R.W. McCourt
Macromol. 23, 3773-3779 (1990)
- 90/021 **Average Molecular Weight Between Crosslinks and Water Tree Growth in Crosslinked Polyethylene**
A. Shaikevitch and S. Haridoss, Q.X. Zhou and A. Rudin
Proc. Internl Cable Conf., Versailles--March 1991, Jicable, 1990
- 90/022 **Effects of Resin and Curing Parameters on the Degree of Cure of Resole Phenolic Resins and Woodflour Composites**
S. So and A. Rudin
J. Appl. Poly. Sci., 40, 2135-2149 (1990)

90/023

Device Applications of Langmuir-Blodgett Films. Electrophotographic Photoreceptors Incorporating Multilayers of Fluorenylidene and Carbazole-containing Surfactants as Charge-blocking Elements

J.W. Taylor, D.A. Holden, G.J. Kovacs and R.O. Loutfy

Thin Solid Films 185, 321-334 (1990)

90/024

Synthesis, Electrochemical Characterization and Assembly into Langmuir-Blodgett Films of Some N-substituted Derivatives of Poly(3,6-Carbazolyl Methylene)

S.V. Lowen, J. Buschek, R. Mastantuono, D.A. Holden, G.J. Kovacs and R.O. Loutfy

NO PUBLICATION INFORMATION ON THIS PAPER

1989

- 89/001 **Optimization of a Batch Polymerization Reactor at the Final Stage of Conversion**
K.F. O'Driscoll, S.R. Ponnuswamy and A. Penlidis
Computer Appl., ACS Symp. Ser. 404, T. Provder (Ed.), 321-336 (1989)
- 89/002 **Continuous Emulsion Polymerization: Design and Control of CSTR Trains**
A. Penlidis, J.F. MacGregor and A. E. Hamielec
Chem. Eng. Sci., 44 (2), 273-281 (1989)
- 89/003 **Penultimate Unit Effects on Sequence Length Distribution**
K. F. O'Driscoll and T. P. Davis
J. Poly. Sci., Poly Letters 27, 417-420 (1989)
- 89/004 **Use of Chilled Die Lips to Improve Production Rates in Extrusion of Polyethylenes**
D.G. Cook, R. Cooke and A. Rudin
Intern'l. Polymer Process, 4, 73-77 (1989)
- 89/005 **Synthesis of Monodisperse Film Forming Latexes**
S.T. Eckersley, G. Vandezande and A. Rudin
JOCCA, 72, 273-275 (1989)
- 89/006 **Prediction of the Concentration Dependence of Diffusion Coefficients of Polymers in Solution**
J. W. Qian and A. Rudin
J. Appl. Polym. Sci., 37, 2007 (1989)
- 89/007 **Catalytic Chain Transfer in Polymerization of Methylmethacrylate I. Chain Length Dependence on Chain Transfer Coefficient**
R. Amin Sanayei and K. F. O'Driscoll
J. Macromol. Sci. Chem. A26 (8), 1137-1149 (1989)
- 89/008 **Applications of Monte Carlo Methods to Sequence Distributions in Polymers**
T.A. Duever, K.F. O'Driscoll and P.M. Reilly
ACS Symp. Series **404**, 282-295 (1989)
- 89/009 **Stabilization of PS/PMMA Blends by in-situ Compatibilization with Graft Copolymers**
P. van Ballegooie and A. Rudin
Makromol. Chem., 190, 3153 (1989)
- 89/010 **Effects of Surfactants and Polymerization Methods on the Morphology of Particles Formed in "Core-Shell" Emulsion Polymerization of Methyl Methacrylate and Styrene**
S. Lee and A. Rudin
Makromol. Chem., Rapid Commun., 10, 655 (1989)
- 89/011 **Comments on the Copolymerization of Styrene and Methylmethacrylate with their Perdeutero Analogues**
K. F. O'Driscoll and T.P. Davis
Makromol. Chem., Rapid Commun., 10, 509-511 (1989)

- 89/012 **The Rate of Copolymerization of Styrene and Methylmethacrylate I. Low Conversion Kinetics**
K.F. O'Driscoll and J. Huang
Eur. Poly. J. 25, 629-633 (1989)
- 89/013 **Interpretation of the DSC Measurements of the Degree of Fusion of Rigid PVC**
J. W. Teh, A.A. Cooper, A. Rudin and J.L.H. Batiste
J. Vinyl Technol., 11, 33 (1989)
- 89/014 **New Process for Ultradrawn Polyethylene Structures**
A. Rudin, W. J. Tchir, H.P. Schreiber, R. Gagnon and R. Collacott
I and E.C. Research, 28, 174 (1989)
- 89/015 **High Conversion Copolymers of Styrene and Ortho-Vinylbenzaldehyde**
P. van Ballegooie and A. Rudin
Eur. Poly. J., 25, 753 (1989)
- 89/016 **Determination of Propagation Rate Constants Using a Pulsed Laser Technique**
T.P. Davis, K.F. O'Driscoll, M.C. Piton and M.A. Winnik
Macromolecules 22, 2785-2788 (1989)
- 89/017 **Sorption of Aqueous Sulfur Dioxide on Polybenzimidazole and Poly(4-Vinyl Pyridine)**
M. Chanda, C. McGarvey, and G. L. Rempel
Reactive Polymers, 10, 79-87 (1989)
- 89/018 **Homogeneous Catalytic Hydrogenation of Polybutadiene**
N.A. Mohammadi and G. L. Rempel
J. Mol. Catal., 50, 259-275 (1989)
- 89/019 **Synthesis and Monolayer Spreading Behaviour of Surface-active Compounds Containing Electron and Hole-transporting Groups. 1. Fluorenylidene Derivatives**
J. W. Taylor, C. P. Sloan, D.A. Holden, G.J. Kovacs and R.O. Loutfy
Can. J. Chem., 67, 2136-2141 (1989)
- 89/020 **Synthesis and Monolayer Spreading Behaviour of Surface-active Compounds Containing Electron-and Hole-Transporting Groups. 2. Carbazole Derivatives**
J.W. Taylor, C.P. Sloan and D.A. Holden
Can. J. Chem., 67, 2142-2147 (1989)
- 89/021 **Time-resolved Luminescence**
D. A. Holden
Handbook of Organic Photochemistry, Vol. 1, J. C. Scaiano, Editor, CRC Press, Boca Raton, FL, 261-277 (1989)

- 89/022 **Stereoregularity in Synthetic β -hydroxybutyrate and β -hydroxyvalerate Homopolyesters**
S. Bloembergen, D. A. Holden, T.L. Bluhm, G.K. Hamer, and R. H. Marchessault
Macromolecules 22, 1656-1663 (1989)
- 89/023 **Isodimorphism in Synthetic Poly β -Hydroxybutyrate-co- β -Hydroxyvalerate): Stereoregular Copolyesters from Racemic β -Lactones**
S. Bloembergen and David A. Holden
Macromol. 22, 1663-1669 (1989)
- 89/024 **Excimer Kinetics in Copolymers Containing Isolated Pairs of Chromophores**
D.A. Holden, Ali-Safarzadeh-Amiri, C.P. Sloan and P. Martin
Macromol. 22, 315-322 (1989)
- 89/025 **Copolymerization**
A.E. Hamielec, J. F. Macgregor and A. Penlidis
Comprehensive Poly. Sci. Ch. 2 in Vol. 3, 17-31 (1989)
- 89/026 **Thermal Behavior, Morphology and the Determination of the Polymer- Polymer Interaction Parameter of Polycarbonate-poly(butylene Terephthalate) Blends**
W.N. Kim and C.M. Burns
Die Makromol. Chem. 190, 661-676 (1989)

1988

- 88/001 **Photochemistry**
D. A. Holden
Encyclopedia of Polymer Science and Engineering, 2nd ed., H.F. Mark, N. Bikales, C.G. Overberger, G. Menges, Editors, John Wiley & Sons New York, 11, 126-154 (1988)
- 88/002 **Grafting Behavior of Copolymers of Styrene and ortho-Vinylbenzaldehyde**
P. van Ballegooie and A. Rudin
J. Poly. Sci., Poly. Chem. Ed., 26 2449 (1988)
- 88/003 **Effects of Molecular Structure on the Properties of Ethylene Vinyl Acetate Copolymers**
D.C. Eagles and A. Rudin
Plast. Rubb. Process. Appl., 9, 163-166 (1988)
- 88/004 **Impurity Effects in Emulsion Polymerization Reactors: Case I Kinetics**
A. Penlidis, J.F. MacGregor and A.E. Hamielec
J. Appl. Poly. Sci., 35, 2023-2038 (1988)
- 88/005 **Impurity Effects in Emulsion Polymerization Reactors: Case II Kinetics**
B.P. Huo, J.D. Campbell, A. Penlidis, J.F. MacGregor and A. E. Hamielec
J. Appl. Poly. Sci., 35, 2009-2021 (1988)
- 88/006 **Bimolecular Termination Kinetics**
K.F. O'Driscoll
Chapter in Comprehensive Polymer Science (Pergamon), 3, 161-177 (1988)
- 88/007 **Ligand Exchange Sorption of Arsenate and Arsenite Anions by Chelating Resins in Ferric Ion Form: I. Weak-Base Chelating Resin Dow XFS-4195**
M. Chanda, K. F. O'Driscoll and G. L. Rempel
Reactive Polymers 7, 251-261 (1988)
- 88/008 **Ligand Exchange Sorption of Arsenate and Arsenite Anions by Chelating Resins in Ferric Ion Form: II. Iminodiacetic Chelating Resin Chelex 100**
M. Chanda, K. F. O'Driscoll and G. L. Rempel
Reactive Polymers 8, 85-95 (1988)
- 88/009 **Ligand Exchange Sorption of Arsenate and Arsenite Anions by Chelating Resins in Ferric Ion Form: III. Aminophenol Resin Duolite A-7**
M. Chanda, K. F. O'Driscoll and G.L. Rempel
Reactive Polymers 2nd Intern'l Ion Exchange Conf. Cambridge U.K. July, 1988

- 88/010 **Polybenzimidazole Resin Based New Chelating Agents. Ferric Ion Selectivity of Resins with Immobilized Oligoamines**
M. Chanda, K.F. O'Driscoll and G. Rempel
Reactive Polymers 9, 277-284 (1988)
- 88/011 **Batch Solution Polymerization of Methyl Methacrylate: Parameter Estimation**
S. R. Ponnuswamy, A. Penlidis and C. Kiparissides
Chem. Eng. J., 39, 175-183 (1988)
- 88/012 **Reactive Extrusion of Polystyrene/Polyethylene Blends**
P. van Ballegooie and A. Rudin
Poly. Eng. Sci. 28, 1434-1442 (1988)
- 88/013 **Poly(β -hydroxyalkanoates): Biorefinery Polymers in Search of Applications**
R. H. Marchessault, T.L. Bluhm, Y. Deslandes, G.K. Hamer, W.J. Orts, P.R. Sundararajan, M. G. Taylor, S. Bloembergen and D. A. Holden
Makromol. Chem., Symp., 19, 235 (1988)
- 88/014 **Characterization of Blends of Naphthalene-containing Polymers with Poly(alkyl methacrylates) by Combined Steady-state Fluorescence Spectroscopy and Fluorescence Decay Measurements**
D. A. Holden and J. Strauss
Poly. Eng. Sci., 21, 1373-1380 (1988)
- 88/015 **Catalytic Hydrogenation, Hydroformylation and Hydroxymethylation of Polybutadiene: Synthesis and Characterization**
N. A. Mohammadi and G. L. Rempel
ACS Symp. Ser. 364, Chemical Reactions on Polymers, ed. J.L. Benham and J. F. Kinstle, Washington, D.C. 393-408 (1988)
- 88/016 **Solution Blending of Polystyrene and Poly(methyl methacrylate)**
C.M. Burns and W. N. Kim
Poly. Eng. and Sci. 28, 1362-1372 (1988)
- 88/017 **Thermal Behavior, Morphology and Some Melt Properties of Blends of Polycarbonate with Poly(styrene-co-acrylonitrile) and Poly (acrylonitrile-butadiene-styrene)**
W.N. Kim and C. M. Burns
Engg. and Sci. 28 1115-1125 (1988)
- 88/018 **Monte Carlo Estimation of Kinetic Parameters in Polymerization Reactions**
T.A. Duever, K.F. O'Driscoll and P.M. Reilly
J. Poly. Sci., Poly. Chem. 26 965-971 (1988)

1987

- 87/001 **A Simple Technique for Measuring the Refractive Index of Polymer Latexes at Various Wavelengths**
M.J. Devon and A. Rudin
J. Appl. Poly. Sci., 34, 469-476 (1987)
- 87/002 **Specific Refractive Index Increments of Ethylene-Vinyl Acetate Copolymers in Trichlorobenzene Solutions at 145°C**
D.C. Bugada, R. Gagnon and A. Rudin
J. Appl. Poly. Sci. 34, 501-505 (1987)
- 87/003 **Property Modifications in Polystyrene Recovered from Solution**
H. P. Schreiber, A. Ajji, Y. Li and A. Rudin
Current Topics in Polymer Science, Vol. II, R.M. Ottenbrite, L. A. Utraki and S. Inove, eds., Hanser, Munich, 123-135 (1987)
- 87/004 **Sizes of Long Branches in Low Density Polyethylenes**
D.C. Bugada and A. Rudin
J. Appl. Poly. Sci., 33, 87-93 (1987)
- 87/005 **Branching in Low Density Polyethylene by ¹³C-NMR**
D.C. Bugada and A. Rudin
Eur. Poly. J., 23, 809-818 (1987)
- 87/006 **Long Chain Branching Indices of Low Density Polyethylenes from Size Exclusion Chromatography and ¹³C-NMR Spectroscopy**
D.C. Bugada and A. Rudin
Eur. Poly. J., 23, 847-850 (1987)
- 87/007 **Molecular Weight Distributions in Free Radical Polymerizations**
A. Rudin
Makromol. Chem. Macromol. Symp. 10/11, 273-296 (1987)
- 87/008 **Multicomponent Free-radical Polymerization in Batch, Semi-batch and Continuous Reactors**
A. E. Hamielec, J.F. MacGregor and A. Penlidis
Makromol. Chem., Macromol. Symp., 10/11, 521-570 (1987)
- 87/009 **Determination of Reactivity Ratios in Copolymerization**
K.F. O'Driscoll and P.M. Reilly
Makromol. Chem., Makromol. Symp. 10/11, 355-374 (1987)
- 87/010 **Synthesis of Crystalline β-Hydroxybutyrate and β-Hydroxyvalerate Copolyesters by Coordination Polymerization of β-Lactones**
S. Bloembergen, D.A. Holden, T.L. Bluhm, G.K. Hamer and R. H. Marchessault
Macromol. 20, 3086-3089 (1987)

- 87/011 **Photophysics of Isomeric Poly(acetonaphthyl Methacrylates), Polymers with High Yields of Long-lived Triplet States**
D. A. Holden and A. Safarzadeh-Amiri
Macromol. 20, 1588-1594 (1987)
- 87/012 **Photochemistry of Reactive Surface-active Compounds in Adsorbed Monolayers**
D.A. Holden, J. W. Taylor and D. Clausen
Tetrahedron, 43, 1671-1678 (1987)
- 87/013 **The Triplet Antenna Effect in Poly(acetonaphthyl Methacrylate)**
D. A. Holden and A. Safarzadeh-Amiri
Polymer Photophysics, ACS Symposium Series 358, 252-263 (1987)
- 87/014 **Catalytic Hydrogenation of Unsaturated Nitrile Polymers**
N.A. Mohammadi and G.L. Rempel
Macromol. 20, 2362-2368 (1987)
- 87/015 **Thermal Behavior Morphology and the Determination of the Flory-Huggins Interaction Parameter of Polycarbonate-Polystyrene Blends**
W. N. Kim and C. M. Burns
J. Appl. Poly. Sci., 34, 945-967 (1987)
- 87/016 **Blends of Polycarbonate and Poly(methyl methacrylate) and the Determination of the Polymer-Polymer Interaction Parameter of the Two Polymers**
W. N. Kim and C.M. Burns
Macromol. 20, 1876-1882 (1987)
- 87/017 **Characterization of Polyethylene Performance in Simulated Film and Fibre Extrusion**
D. Cook, A. Rudin, H.P. Schreiber and J. Young
Advances in Polyolefins, Plenum Publishing Co., 435 (1987)

1986

- 86/001 **Polymers of Ortho-Vinylbenzaldehyde**
R.J.G. Roth, A. Rudin and M.F. Tchir
J. Poly. Sci., Poly. Chem. Ed., 24, 133-146 (1986)
- 86/002 **Long Chain Branching Indices from Size Exclusion Chromatography of Polyethylenes**
V. Grinshpun, A. Rudin, K.E. Russell and M.V. Scammell
J. Poly. Sci., Poly. Lett. Ed., 24, 1171-1176 (1986)
- 86/003 **Shear and Thermal History Effects in Polypropylene Melts**
R. Schertzer, A. Rudin and H. P. Schreiber
J. Appl. Poly. Sci., 31, 809-821 (1986)
- 86/004 **Kinetic Analysis of a Starved Feed Polymerization Reactor**
K. F. O'Driscoll and A. Burczyk
Polymer Reaction Engineering, K.-H. Reichert and W. Geissler, Eds., Huthig & Wepf Verlag, N.Y., 229-236 (1986)
- 86/005 **Second Virial Coefficients of Polystyrene Mixtures in 2-Butanone**
C.M. Kok and A. Rudin
Eur. Poly. J. 22, 107-109 (1986)
- 86/006 ¹³**C-NMR Characterization of Structures of Water-Soluble Polymers**
M.F. Tchir and A. Rudin
ACS Adv. Chem. Ser., 213, 71-83 (1986)
- 86/007 **Chain Entanglement and Viscoelastic Properties of Molten Polymers**
A. Aji, P.J. Carreau, A. Rudin and H.P. Schreiber
J. Poly. Sci., Poly Phys. Ed., 24, 1983-1990 (1986)
- 86/008 **Measurement of Long Chain Branch Frequency in Synthetic Polymers**
A. Rudin
Modern Methods of Polymer Analysis, H.G. Barth ed., Wiley, in press (1986)
- 86/009 **A New Method for Determining Molecular Weight Distributions of Copolymers**
V. Grinshpun and A. Rudin
J. Appl. Poly. Sci., 32, 4303-4311 (1986)
- 86/010 **Reinvestigation of the Reported ¹H-NMR Spectra of Poly-Styrene-co-methyl Methacrylate)**
L.T. Kale, K.F. O'Driscoll, F.J. Dinan and J.J. Uebel
J. Poly. Sci., PCE 24, 3145-3149 (1986)
- 86/011 **Studies of Composition and Crystallinity of Bacterial Poly(β -hydroxybutyrate-co- β -hydroxyvalerate)**
S. Bloembergen, D.A. Holden, G.K. Hamer, T.L. Bluhm and R.H. Marchessault
Macromol. 19, 2865-2871 (1986)

- 86/012 **Effects of Chromophore Environment on the Photophysics of poly (2-isopropenyl naphthalene)**
D.A. Holden, L. Corey, J. Kovarova and J. E. Guillet
Macromol. 19, 1180-1186 (1986)
- 86/013 **Chemical Modification of Polydienes, 3^a) Copolymers with Poly(Tetrahydrofuran) by Grafting--from Butadiene Polymers**
G.G. Cameron, M.Y. Qureshi and A. Rudin
Makromol. Chem. 187, 2763-2774 (1986)

1985

- 85/001 **Solution Induced Changes in the Properties of Polyethylenes**
A. Aji, H.P. Schreiber, A. Rudin and J. W. Teh
J. Appl. Poly. Sci., 30 731 (1985)
- 85/002 **Diffusion of Anionic Polystyrenes in Butanone**
C.M. Kok, F.R. Hallett and A. Rudin
Eur. Poly. J., 21, 33 (1985)
- 85/003 **Effect of Aggregation States on Some Properties of PVC Solids and Melts**
A. Aji, G. Jeremie, A. Rudin and H.P. Schreiber
J. Appl. Poly. Sci., 30, 1695 (1985)
- 85/004 **Shear Modification of Low Density Polyethylene**
J. W. Teh, A. Rudin and H. P. Schreiber
J. Appl. Poly. Sci., 30, 1345 (1985)
- 85/005 **Characterization of Poly(vinyl alcohols)**
D.C. Bugada and A. Rudin
J. Appl. Poly. Sci., 30, 4137 (1985)
- 85/006 **Blends of Rigid PVC and Polystyrene**
A. Rudin, S. Bloembergen and S. Cork
J. Vinyl Technol., 7, 103 (1985)
- 85/007 **Study of the Curing Reactions of Phenolic Resins by High Field Carbon-13 CP-MAS NMR Spectroscopy**
S. So and A. Rudin
J. Poly. Sci., Poly. Lett. Ed., 23, 403 (1985)
- 85/008 **Measurement of Mark-Houwink Constants by Size Exclusion Chromatography with a Low Angle Laser Light Scattering Detector**
V. Grinshpun and A. Rudin
Makromol. Chemie, Rapid Commun., 6, 219 (1985)
- 85/009 **Monte Carlo Simulation of Polymerization with Reversible Chain Transfer**
K. F. O'Driscoll
Macromol., 18, 1508-1510 (1985)
- 85/010 **Monomer Chain Transfer in the Copolymerization of Styrene and Butyl Acrylate**
M. J. Devon and A. Rudin
J. Poly. Sci., Poly. Chem. Ed., 24, 2191-2198 (1986)
- 85/011 **Fluorocarbon Elastomer Processing Aid in Film Extrusion of Linear Low Density Polyethylene**
A. Rudin, A. T. Worm and J. E. Blacklock
J. Plast. Film Sheet., 1, 189-204 (1985)
- 85/012 **Nonionic Aqueous Dispersion Polymerization of Styrene**
L. H. de Carvalho, A. Rudin and G. G. Cameron
Polymer (London) Rapid Commun. submit. May/85

- 85/013 **Compatability Studies of Polystyrene--Polybutadiene Blends by Thermal Analysis**
W. N. Kim and C. M. Burns
J. Appl. Poly. Sci., accept. Sep/85
- 85/014 **The Effect of Multifunctional Initiators on Molecular Weight Distribution in Free Radical Polymerization**
K. F. O'Driscoll and J. Bevington
Eur. Poly. J., 12, 1039-1043 (1985)
- 85/015 **Removal of Copper and Silver from Dilute Aqueous Solutions Using Mercaptoacetamide of Poly(ethylene-imine) and Poly(propylene-imine)**
M. Chanda, K.F. O'Driscoll and G. Rempel
Reactive Polymers 4, 213-223 (1986)
- 85/016 **Effects of Die Temperature on Extrudate Swell in Screw Extrusion**
A. M. Henderson and A. Rudin
J. Appl. Poly. Sci., accept. Jun/85
- 85/017 **Studies of Polymer Photostabilization using Fluorescence Spectroscopy: Photochemistry of Naphthyl Methacrylate Copolymers**
D.A. Holden, K. Jordan and A. Safarzadeh-Amiri
Macromol., accept. Nov/85
- 85/018 **Thermal Analysis of the Glass Transition of Plasticized Poly(vinyl chloride)**
K. J. Beirnes and C. M. Burns
J. Appl. Poly Sci., accept. Nov/85

1984

- 84/001 **An Engineering Approach to Polymer Solution Properties**
C. M. Kok and A. Rudin
J. Macromol. Sci., Chem. Revs., C24, 49 (1984)
- 84/002 **High Temperature Size Exclusion Chromatography of Polyethylene**
V. Grinshpun, K.F. O'Driscoll and A. Rudin
ACS Symposium Series, 254, 273 (1984)
- 84/003 **Monte Carlo Simulation of Sequence Distributions in Step Growth Copolymerization**
A.F. Johnson and K.F. O'Driscoll
Eur. Poly. J., 20, 979-983 (1984)
- 84/004 **Characterization of Linear Low Density Polyethylene by Capillary Rheometry**
J. W. Teh, A. Rudin and H. P. Schreiber
Plast. Rubb. Process. Appl., 4, 149-156 (1984)
- 84/005 **Shear Modification of a Linear Low Density Polyethylene**
J.W. Teh, A. Rudin and H. P. Schreiber
Plast. Rubb. Process. Appl., 4, 157-163 (1984)
- 84/006 **Applicability of the Mayo-Lewis Equation to High Conversion Copolymerization of Styrene and Methylmethacrylate**
K. O'Driscoll, L.T. Kale, L. Garcia-Rubio and P.M. Reilly
J. Poly. Sci., 22, 2777-2788 (1984)
- 84/007 **Polycarbonate Blends with Polystyrene and Polypropylene**
A. Rudin and N. E. Brathwaite
Poly. Eng. Sci., 24, 1312 (1984)
- 84/008 **A Model Illustrating the Relationship Between Fluorescence Polarization and Sequence Distribution in Statistical Copolymers**
D. A. Holden
J. Poly Sci., Poly. Lett., accept. Jul/84
- 84/009 **Solution and Shear History Effects in Polyethylene**
A. Ajji and H.P. Schreiber
Paper presented at the SPE ANTEC, May 1984

1983

- 83/001 **Investigations of the Mechanism of the Thermal Decomposition of Cured Phenolic Resins by High-Resolution ¹³C CP/MAS Solid-State NMR Spectroscopy**
C.A. Fyfe, M.S. McKinnon, A. Rudin and W. J. Tchir
Macromolecules, 16, 1216-1219 (1983)
- 83/002 **Shear Modification of Polymers**
A. Rudin and H. P. Schreiber
Polym. Eng. Sci., 23, 422-429 (1983)
- 83/003 **Poly(ortho-vinylbenzophenone)**
M.F. Tchir, A. Rudin and C.J.B. Dobbin
Polymer (London), 24, 909-914 (1983)
- 83/004 **Instrumental Assessment of Application Properties of Latex Paints**
A. Rudin and J. Baas
JOCCA, 66 (4), 116-120 (1983)
- 83/005 **Gel Permeation Chromatographic Analyses of Resole Phenolic Resins**
A. Rudin, C.A. Fyfe and S.M. Vines
J. Appl. Polym. Sci., 28, 2611-2622 (1983)
- 83/006 **The Use of the Error-in-Variables Model in Terpolymerization**
T.A. Duever, K.F. O'Driscoll and P.M. Reilly
J. Poly. Sci., PCE 21, 2003-2010 (1983)
- 83/007 **Compositional Heterogeneity in Low Molecular Weight Copolymers as Revealed by Monte Carlo Simulation**
K.F. O'Driscoll
J. Coat. Technol. 55, 57-59 (1983)
- 83/008 **Estimation of Solubility Parameters from Solution Properties of Polymers**
C.M. Kok and A. Rudin
J. Coatings Technol., 55 (704), 60-62 (1983)

1982

- 82-001 **Rheokinetics of the Polymerization of N-Lauryl Methacrylate**
K.F. O'Driscoll and L. T. Kale
Polymer Science and Eng. 22, 402-409 (1982)
- 82-002 **A Semi-Empirical Method for Prediction of Critical Concentrations for Polymer Overlap in Solution**
C.M. Kok and A. Rudin
Europ. Polym. J.,18, 363-366 (1982)
- 82/003 **Emulsion Copolymerization of Styrene and Methyl Methacrylate**
J. M. Goldwasser and A. Rudin
J. Polym. Sci. Polym. Chem. Ed. 20, 1993-2006 (1982)
- 82/004 **Prediction of Flory-Huggins Interaction Parameters from Intrinsic Viscosities**
C.M. Kok and A. Rudin
J. Appl. Polym. Sci., 27, 353-362 (1982)
- 82/005 **Use of Broad Distribution Polymers and GPC Methods for Estimation of Mark-Houwink-Sakurada Constants (note)**
C.J.B. Dobbin, A. Rudin and M.F. Tchir
J. Appl. Polym. Sci., 27, 1081-1085 (1982)
- 82/006 **Effects of Data Analysis on Accuracy and Precision of GPC Results**
W.J. Tchir, A. Rudin and C.A. Fyfe
J. Polym. Sci. Polym. Phys. Ed., 20, 1443-1451 (1982)
- 82/007 **Prediction of Sedimentation Coefficients of Random Coil Polymers**
C.M. Kok and A. Rudin
J. Appl. Polymer Sci.21, 3357-3368 (1982)
- 82/008 **Densimeter Detector in Gel Permeation Chromatography of Copolymers**
W.L. Elsdon, J.M. Goldwasser and A. Rudin
J. Polym. Sci. Polym. Chem. Ed., 20, 3271-3283 (1982)
- 82/009 **Effects of Water on Starch-g-Polystyrene and Starch-g-Poly(methyl acrylate) Extrudates**
A.M. Henderson and A. Rudin
J. Appl. Polym. Sci., 27, 4115-4135 (1982)

1981

- 81-001 **Gel Permeation Chromatography of Polymer Mixtures**
C.M. Kok and A. Rudin
Makromol. Chem., 182, 2801-2809 (1981)
- 81-002 **ESR Study of the Effects of Water, Methanol and Ethanol on Gamma-Irradiation of Starch**
A. Henderson and A. Rudin
J. Polym. Sci., Chem. Ed., 19, 1721-1732 (1981)
- 81-003 **Effects of Water, Methanol and Ethanol on Production of Starch-g-Polystyrene Copolymers by Cobalt-60 Irradiation**
A. Henderson and A. Rudin
J. Polym. Sci. Chem. Ed., 19, 1707-1719 (1981)
- 81-004 **Comments on Interpretation of Kinetic Parameters from Dynamic Thermogravimetric Experiments (Note)**
G.G. Cameron and A. Rudin
J. Polym. Sci. Polym. Phys. Ed., 19, 1799-1800 (1981)
- 81-005 **Methylmethacrylate Copolymerization in the Presence of a Template**
K. O'Driscoll, I. Capek
J. Polymer Sci. PLE 19, 401-407 (1981)
- 81-006 **Reactivity Ratios for Divinylbenzene and Ethylene Glycol Dimethacrylate Copolymerizations with Styrene and Methyl Methacrylate**
C.D. Frick, A. Rudin and R. H. Wiley
J. Macromol. Sci. Chem., A16, 1275-1282 (1981)
- 81-007 **Concentration Effects in the Gel Permeation Chromatography of Broad Distribution Polymers**
W.L. Elsdon, J.M. Goldwasser and A. Rudin
J. Polym. Sci., Polym. Letters, 19, 483-493 (1981)
- 81-008 **Relationship between Hydrodynamic Radius and Radius of Gyration of a Polymer in Solution**
C.M. Kok and A. Rudin
Makromol. Chem. Rapid Commun., 2, 655-659 (1981)
- 81-009 **Prediction of Osmotic Pressures of Polymer Solutions**
C.M. Kok and A. Rudin
J. Appl. Polym. Sci., 26, 3575-3582 (1981)
- 81-010 **Prediction of Second Virial Coefficients of Polymer Solutions**
C.M. Kok and A. Rudin
J. Appl. Polym. Sci., 26, 3583-3597 (1981)

1980

- 80-001 **Oriented Monofilaments from Blends of Poly(Ethylene Terephthalate) and Polypropylene**
A. Rudin, D.A. Loucks and J. M. Goldwasser
Polym. Eng. Sci., 20, 741 (1980)
- 80-002 **Application of High Resolution ¹³C NMR Spectroscopy Using Magic Angle Spinning Techniques to the Direct Investigation of Solid Cured Phenolic Resins**
C.A. Fyfe, A. Rudin and W. Tchir
Macromolecules, 13, 1320 (1980)
- 80-003 **Copolymers in Polymer Blends, (Review)**
A. Rudin
J. Macromol. Sci.-Reviews, C19, 267-292 (1980)

1979

- 79-001 **Effect of Solvent on the Termination Rate Constant in Initial Stages of Free Radical Polymerization**
H.K. Mahabadi and A. Rudin
J. Polym. Sci., Chem. Ed., 17, 1801 (1979)
- 79-002 **A Comparison of the Precision of Estimation of Copolymerization Reactivity Ratios by Current Methods**
R.C. McFarlane, P.M. Reilly and K.F. O'Driscoll
JPS 18 251-258 (1980)
- 79-003 **Emulsion Copolymers of Alpha-Methylstyrene and Styrene**
A. Rudin and M.C. Samanta
J. Appl. Polym. Sci., 24, 1899 (1979)
- 79-004 **High Conversion Copolymerization of Styrene and Methyl Methacrylate**
J.M. Dionisio and K.F. O'Driscoll
J. Polym. Sci., PLE, 17, 7i07-707 (1979)