List of Institute for Polymer Research

Preprints | 1979 - 2013
2013

13/001 Probing the Hydrophobic Interactions of a Series of Pyrene End-Labeled Poly(ethylene oxide)s in Aqueous Solution Using Time-Resolved Fluorescence S. Chen, J. Duhamel Langmuir, Acc., 01/13

13/002 Migration Insertion Polymerization (MIP) of Cyclopentadienyl dicarbonyldiphenylphosphinopropyliron (FpP): A New Concept for Main Chain Metal-Containing Polymers (MCPs) X. Wang, K. Cao, Y. Liu, B. Tsang and S. Liew Journal of the American Chemical Society, Acc., 02/13

13/003 Design of experiments for reactivity ratio estimation in multicomponent polymerizations using the error-in-variables-model approach N. Kazemi, T.A. Duever, A. Penlidis Macromol. Theory Simulation., Acc. 02/13

13/004 Effect of Sequence on the Ionization Behaviour of a Series of Amphiphilic Polypeptides M. Fowler, B. Siddique, J. Duhamel Langmuir, Acc. 03/13


13/007 Analysis of the Microwave Activated Atom Transfer Radical Polymerization of Methyl Methacrylate and Styrene using Modeling Tools P. López-Domínguez, E. Vivaldo-Lima Macromolecular Reaction Engineering, Acc. 05/13

13-009  Supramolecular Chemistry of Metal Complexes in Solution
N. Lanigan, X. Wang
ChemCommun., Acc. 08/13

13-010  Optimal Estimation of Reactivity Ratios for Acrylamide/Acrylic Acid
Copolymerization
M. Riahinezhad, N. Kazemi, N. McManus, A. Penlidis
Journal of Polymer Science Polymer Chemistry, Acc. 08/13

13-011  Radiation Induced Long Chain Branching in High Density Polyethylene through
a Reactive Extrusion Process
P. Sardashti, C. Tzoganakis, M.A. Polak, A. Penlidis
Macromol. React. Eng., special issue Acc. 07/13

13-012  Polymeric Bio-Inspired Dry Adhesives: Van der Waals or Electrostatic
Interactions?
H. Izadi, A. Penlidis
Macromol. React. Eng., Acc. 08/13

13-013  Recent Advances in Synthesis and Characterization of Adhesives
H. Izadi, A. Penlidis
Science and Technology of Bio-inspired Adhesives
H. Izadi, A. Penlidis
Macromol. React. Eng., special issues, Acc. 09/13

13-014  Synthesis of Arborescent Polymers by “Click” Grafting
T. Aridi, M. Gauthier
MRS Proc., Acc. 09/13

13-015  Arborescent Polypeptides from γ-Benzy L-Glutamic Acid
G. Whitten, M. Gauthier
J. Polymer Science: Part A., Acc. 09/13

13-016  Glassy States in Asymmetric Mixtures of Soft and Hard Colloids
D. Truzzolillo, D. Marzi, J. Marakis, B. Capone, M. Camargo, A. Munam, F.
Moingeon, M. Gauthier, C.N. Likos, D. Vlassopoulos.
PhysRevLett, Acc. 09/13

13-017  Arborescent Polypeptides from γ-Benzy L-Glutamic Acid
G. Whitten, M. Gauthier
J. Polymer Science: Part A., Acc. 09/13
<table>
<thead>
<tr>
<th>ID</th>
<th>Title</th>
<th>Authors</th>
<th>Journal, Volume, Issue, Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>13-018</td>
<td>Thermal Melting in Depletion Gels of Hairy Nanoparticles</td>
<td>D. Truzzolillo, D. Vlassopoulos, M. Gauthier, A. Munam</td>
<td>Soft Matter, Acc. 05/13</td>
</tr>
<tr>
<td>13-019</td>
<td>Arborescent Polymers</td>
<td>M. Gauthier</td>
<td>Springer, Acc. 09/13</td>
</tr>
<tr>
<td>13-021</td>
<td>Global Analysis of Fluorescence Decays to Probe the Internal Dynamics of Fluorescently Labeled Macromolecules</td>
<td>J. Duhamel</td>
<td>Langmuir, Acc. 11/13</td>
</tr>
<tr>
<td>13-023</td>
<td>Effect of Side-Chain Length on the Polymer Chain Dynamics of Polk(alkyl methacrylate)s in Solution</td>
<td>S. Farhangi, H. Weiss, J. Duhamel</td>
<td>Macromolecules, Acc. 11/13</td>
</tr>
</tbody>
</table>
2012

12/001  **Synthesis of arborescent styrene homopolymers and copolymers from epoxidized substrates**  
F. Moingeon, Y.R. Wu, L.-E. Sanchez-Cadena, M. Gauthier  

12/002  **Poly(lactic acid)-based biomaterials: synthesis, modification and applications**  
L. Xiao, B. Wang, G. Yang, M. Gauthier  
Biomed. Sci, Eng and Techn., Acc., 01/12

12/003  **pH-Responsive films of electrostatically adsorbed arborescent copolymers**  
M. Huh, Y.S. Park, M.-H. Jung, S.J. Kang, T.-B. Kang, A. Munam,  
M. Gauthier, S.I. Yun  

12/004  **Arborescent polystyrene-graft-poly(2-vinylpyridine) copolymers: solution polyelectrolyte behavior**  
M. Gauthier, A. Munam  
RSC Advances, Acc., 02/12

12/005  **Routes to carboxylic acid functional acrylonitrile copolymers via N-tert-butyl-N-(1-diethylphosphono-2,2-dimethylpropyl) free nitroxide based nitroxide-mediated polymerization**  
V. Consolante, M. Maric, A. Penlidis  
J. Polym. Sci., Acc., 01/12  (DOI-36547)

12/006  **New insights in the study of pyrene excimer fluorescence to characterize macromolecules and their supramolecular assemblies in solution**  
J. Duhamel  
Langmuir, Acc., 02/12

12/007  **Teflon Hierarchical nanopillars with dry and wet adhesive properties**  
H. Izadi, B. Zhao, Y. Han, N. McManus, A. Penlidis  

12/008  **Unexpected absorbance enhancement upon clustering dyes in a polymer matrix**  
A. Gelover-Santiago, M.A. Fowler, J. Yip, J. Duhamel, G. Burillo, E. Rivera  
J. Phys. Chem. B, Acc., 04/12

12/009  **Rheological detection of caging and solid-liquid transitions in soft colloid-polymer mixtures**  
D. Truzzolillo, D. Vlassopoulos, M. Gauthier  
J. Non-Newt. Fluid Mech., Acc., 04/12
<table>
<thead>
<tr>
<th>Page</th>
<th>Title</th>
<th>Authors</th>
<th>Journal</th>
<th>Volume, Issue</th>
</tr>
</thead>
<tbody>
<tr>
<td>012/016</td>
<td>Synthesis, characterization, micellization and metal coordination polymerization of pentacyanoferrate-coordinated block copolymers for monodispersed soluble Prussian blue nanospheres</td>
<td>Y. Liu and X. Wang</td>
<td>Polymer Chemistry, Acc., 07/12</td>
<td></td>
</tr>
</tbody>
</table>
012/019  Cross-linking nitroxide-mediated radical copolymerization from a Bayesian experimental design angle
A. Nabifar, J. Hernandez-Ortiz, E. Vivaldo-Lima, A. Penlidis
Macromol. Symp., Acc., 07/12

012/020  Novel test system for gas sensing materials and sensors
K.M.E. Stewart and A. Penlidis
Macromol. Symp., Acc., 08/12

012/021  Synthesis of Prussian blue metal coordination polymer nanocubes via cyanoferrate monomer design
N. Ghasdian, Y. Liu, R. McHale, J. He, Y. Miao, X. Wang
J. Inorg. & Organometallic Polym. & Matl., Acc., 08/12

012/022  A powerful estimation scheme with the error-in-variables-model for nonlinear cases: reactivity ratio estimation examples
N. Kazemi, T.A. Duever, A. Penlidis
Comput. & Chem. Eng., Acc., 08/12

012/023  Lateral distribution of charged species along a polyelectrolyte probed with a fluorescence blob model
C. Keyes-Baig, M. Mathew, J. Duhamel
J. Am. Chem. Soc., Acc., 09/12

012/024  Studying Pyrene-Labelled Macromolecules with the Model Free Analysis
M.A. Fowler, J. Duhamel, G. J. Bahun, A. Adronov, G. Zaragoza-Galán, E. Rivera
J. Phys. Chem., Acc., 10/12

012-025  RAFT Copolymerization with Crosslinking of Methyl Methacrylate and Ethylene Glycol Dimethacrylate in Supercritical Carbon Dioxide
G. Jaramillo-Soto, C.M. Villa-Ávila, E. Vivaldo-Lima

012-026  Enhanced Adhesion and Friction by Electrostatic Interactions of Double-Level Teflon Nanopillars
H. Izadi, M. Golmakani, A. Penlidis
Soft Matter., Acc., 12/12
<table>
<thead>
<tr>
<th>Issue</th>
<th>Title</th>
<th>Authors</th>
<th>Journal</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>11/001</td>
<td><strong>Characterization of the behavior of a pyrene substituted Gemini surfactant in water by fluorescence</strong></td>
<td>C. Keyes Baig, J. Duhamel and S. Wettig</td>
<td>Langmuir, Acc., 01/11</td>
<td></td>
</tr>
<tr>
<td>11/002</td>
<td><strong>Probing end-to-end cyclization beyond Willemski and Fixman</strong></td>
<td>S. Chen and J. Duhamel</td>
<td>J. Phys. Chem. B., Acc., 02/11</td>
<td></td>
</tr>
<tr>
<td>11/003</td>
<td><strong>Influence of micromolecular structure on environmental stress cracking resistance of high density polyethylene</strong></td>
<td>J.J. Cheng, M.A. Polak and A. Penlidis</td>
<td>J. of Tunnelling and Underground Space Technology (TUST), Acc., 02/11</td>
<td></td>
</tr>
<tr>
<td>11/005</td>
<td><strong>Effect of polypeptide sequence on polypeptide self-assembly</strong></td>
<td>B. Siddique, J. Duhamel</td>
<td>Langmuir, Acc., 04/11</td>
<td></td>
</tr>
<tr>
<td>11/007</td>
<td><strong>Reactivity ratio estimation from cumulative copolymer composition data</strong></td>
<td>N. Kazemi, T.A. Duever, A. Penlidis</td>
<td>Macromol React Eng, Acc., 05/11</td>
<td></td>
</tr>
<tr>
<td>11/008</td>
<td><strong>Long-range polymer chain dynamics of pyrene-labelled poly(N-isopropylacrylamide)s studied by fluorescence</strong></td>
<td>J. Yip, J. Duhamel, X.P. Qiu, F. Winnik</td>
<td>Macromol., Acc., 06/11</td>
<td></td>
</tr>
<tr>
<td>11/011</td>
<td><strong>Quantifying the presence of unwanted fluorescent species in the study of pyrene-labeled macromolecules</strong></td>
<td>S. Chen, J. Duhamel, G.J. Bahun, A. Adronov</td>
<td>J. Physical Chemistry B, Acc., 07/11</td>
<td></td>
</tr>
</tbody>
</table>
11/012  Doped polyaniline for the detection of formaldehyde
K.M.E. Stewart, N.T. McManus, E. Abdel-Rahman and A. Penlidis

11/013  Numerical implementation of a damage-coupled material law for
semicrystalline polyethylene
J.A. Alvarado-Contreras, M.A. Polak and A. Penlidis
J. Eng. Comput., Acc., 08/11

11/014  Modeling of network formation in nitroxide-mediated radical
copolymerization of vinyl/divinyl monomers using a multifunctional
polymer molecule approach
J.C. Hernandez-Ortiz, E. Vivaldo-Lima and A. Penlidis
Macromol. Theory Simul., Acc., 12/11

11/015  Efficient numerical integration of stiff differential equations in
polymerization reaction engineering. Computational aspects and
applications
I. Zapata-Gonzalez, E. Saldivar-Guerra, A. Flores-Tlacuahuac,
E. Vivaldo-Lima, J. Ortiz-Cisneros
2010

10/001  **Optimal Bayesian design of experiments applied to nitroxide-mediated radical polymerization**
A. Nabifar, N.T. McManus, E. Vivaldo-Lima, P.M. Reilly and A. Penlidis
Macromol. React. Eng., Acc., 01/10

10/002  **Kinetic aspects of styrene polymerization with an acyloxyamine**
A. Nabifar, N.T. McManus, E. Vivaldo-Lima and A. Penlidis

10/003  **Returning to basics: Direct integration of the full molecular-weight distribution equations in addition polymerization**
E. Saldivar-Guerra, R. Infante-Martinez, E. Vivaldo-Lima, A. Flores-Tlacuahuac
Macromol. Theory Simul., Acc., 02/10

10/004  **Mathematical modeling of acrylonitrile-butadiene emulsion copolymerization: Model development and validation**
I.D. Washington, T.A. Duever and A. Penlidis

10/005  **A UV-initiated reactive extrusion process for production of controlled-rheology polypropylene**
G. He and C. Tzoganakis
Polym. Eng. And Sci., Acc., 03/10

10/006  **Dynamics and rheology of colloidal star polymers**
B.M. Erwin, M. Cloitre, M. Gauthier and D. Vlassopoulos
Soft Matter, Acc., 03/10

10/007  **Arborescent polymers with a mesoscopic scale**
T. Aridi and M. Gauthier

10/008  **Synthesis of 1,4-Polybutadiene dendrimer-arborescent polymer hybrids**
M. Gauthier and A. Munam
Macromolecules, Acc., 03/10

10/009  **Effect of initiator type and concentration on polymerization rate and molecular weight in the bimolecular nitroxide-mediated radical polymerization of styrene**
Adv. in Polym. Tech., Acc., 01/10
10/010  Scaling-up a reactive extrusion operation: a one-dimensional simulation analysis  
E. Ortiz-Rodriguez and C. Tzoganakis  
Intern'l Polym. Processing, Acc., 03/10

10/011  Fluorine-containing arborescent polystyrene-graft-polyisoprene copolymers as polymer processing additives  
M. Gauthier, W-Y Lin, S.J. Teertstra, C. Tzoganakis  
Polymer, Acc., 04/10

10/012  Nanodomain formation in lipid membranes probed by time-resolved fluorescence  
H. Siu, J. Duhamel  
Langmuir, Acc., 05/10

10/013  Fluorescence studies of a series of monodisperse telechelic α, ω-dipyrenyl-poly(N-isopropylacrylamide)s in ethanol and in water  
J. Yip, J. Duhamel, X. Ping Qiu, F. Winnik  
Can. J. Chem, Acc., 07/10

10/014  A study of the dynamics of the branch ends of a series of pyrene-labeled dendrimers based on pyrene excimer formation  
J. Yip, J. Duhamel, G.J. Bahun, A. Adronov  
J. Phys. Chem. B, Acc., 07/10

10/015  Lipase-catalyzed syntheses of linear and hyperbranched polyesters using compressed fluids as solvent media  
A. Lopez-Luna, J.L. Gallegos, M. Gimeno, E. Vivaldo-Lima, E. Barzana  
J. Mol. Catalysis. B, Enzymatic, Acc., 08/10

10/016  An alternative approach to estimating parameters in creep models of high density polyethylene  
J.J. Cheng, M.A. Polak and A. Penlidis  

10/017  Simulation of polymerization kinetics and molecular weight development in the microwave-activated emulsion polymerizations of styrene using EMULPOLY  
G. Jaramillo-Soto, M. Ramirez-Cupido, J.A. Tenorio-Lopez, E. Vivaldo-Lima and A. Penlidis  
Chem. Eng. & Techn., Acc., 09/10

10/018  Copolymerization kinetics of styrene and divinylbenzene in the presence of S-thiobenzoyl thioglycolic acid as RAFT agent  
M. Roa-Luna, G. Jaramillo-Soto, P. V. Castaneda-Flores and E. Vivaldo-Lima  
Chem. Eng. & Techn., Acc., 09/10

10/019  Investigations on Azeotropy in multicomponent polymerizations  
N. Kazemi, T.A. Duever and A. Penlidis  
Chem. Eng. And Techn., Acc., 07/10
A sequential iterative scheme for design of experiments in complex polymerization
A. Nabifar, N.T. McManus, E. Vivaldo-Lima, A. Penlidis
Chem. Eng. And Techn., Acc., 08/10

Diagnostic checks and measures of information in the Bayesian design of experiments with complex polymerizations
A. Nabifar, N.T. McManus, E. Vivaldo-Lima, A. Penlidis
Macromol. Symp., Acc., 09/10

An alternative approach to estimating parameters in creep models of high density polyethylene
J.J. Cheng, M.A. Polak, A. Penlidis

Constitutive modeling of damage evolution in semicrystalline polyethylene
J.A. Alvarado-Contreras, M.A. Polak, A. Penlidis
J. Eng. Mat. Tech., Acc., 08/10
2009

09/001 Calculation of the sol molecular weight distribution of styrene, vinyl acetate, methyl methacrylate and butyl acrylate homopolymerizations using the numerical fractionation technique
B.A. Yanez-Martinez, G. Luna-Barcenas and E. Vivaldo-Lima
Macromol. Theory and Simul., Acc., 01/09

09/002 Phase interconnectivity and environmental stress cracking resistance of polyethylene: A crystalline phase investigation
J.J. Cheng, M.A. Polak and A. Penlidis

09/003 Effect of time on the rate of long range polymer segmental intramolecular encounters
M. Ingratta and J. Duhamel
J. Phys. Chem. B, Acc., 01/09

09/004 Effect of viscosity on long range polymer chain dynamics in solution studied with a fluorescence blob model
M. Ingratta and J. Duhamel
Macromol., Acc., 01/09

09/005 Kinetics and molecular weight development of dithiolactone-mediated radical polymerization of styrene
J. Guillermo Soriano-Moro, G. Jaramillo-Soto, Ramiro Guerrero-Santos and E. Vivaldo-Lima
Macromol. React. Eng. Acc., 03/09

09/006 Peroxide-controlled degradation of polypropylene using a tetra-functional initiator
Poly. Eng. Sci., Acc., 03/09

09/007 Effect of stabilizer concentration, pressure and temperature on polymerization rate and molecular weight development in RAFT polymerization of MMA in scCo2
G. Jaramillo-Soto, P.R. Garcia-Moran, E. Vivaldo-Lima
Macromol. Symp. (PRE 7), Acc., 07/09

09/008 Evaluation of the performance of a kinetic model for free-radical copolymerization of vinyl/divinyl monomers in supercritical carbon dioxide
I.A. Quintero-Ortega, P.R. Garcia-Moran, G. Jaramillo-Soto, E. Vivaldo-Lima, G. Luna-Barcenas
Macromol. Symp: MACROMEX 2008 (conf. proceed.), Acc., 07/09
09/009  **Modelling of the nitroxide-mediated radical copolymerization of styrene and divinylbenzene**  
Macromol. React. Eng., Acc., 04/09

09/010  **Effect of stabilizer concentration and controller structure and composition on polymerization rate and molecular weight development in RAFT polymerization of styrene in supercritical carbon dioxide**  
Polymer, Acc., 08/09

09/011  **Chain entanglements and mechanical behavior of high density polyethylene**  
J.J. Cheng, J.A. Alvarado-Contreras, M.A. Polak, A. Penlidis  
J. Eng. Mat. Techn., Acc., 07/09

09/012  **A critical overview of sensors for monitoring polymerizations**  
G. Fonseca, M.A. Dube, A. Penlidis  
Macromol. React. Eng., Acc., 07/09

09/013  **Polymer network mobility and environmental stress cracking resistance of high density polyethylene**  
J.J. Cheng, M.A. Polak, A. Penlidis  

09/014  **Kinetics of nitroxide mediated radical polymerization of styrene with unimolecular initiators**  
Macromol. Symp., Acc., 07/09

09/015  **Comparison of the long range polymer chain dynamics of polystyrene and cis-polyisoprene using polymers randomly labeled with pyrene**  
S.J. Teertstra, W.Y. Lin, M. Gauthier, M. Ingratta, J. Duhamel  
Polymer, Acc., 09/09

09/016  **Modeling of polymerization kinetics and molecular weight development in the microwave-activated RAFT polymerization of styrene**  
J.C. Hernandez-Ortiz, G. Jaramillo-Soto, J. Palacios-Alquisira and E. Vivaldo-Lima  
Macrom. React. Eng., Acc., 09/09

09/017  **Cross-linked latex particles grafted with polyisoprene as model rubber-compatible fillers**  
M. Gauthier, A. Munam  
Polymer, Acc., 10/09
Nitrooxide-mediated radical copolymerization of styrene and divinylbenzene: increased polymerization rate by using TBEC as initiator
J. Mat. Sci., Acc., 12/09

Grade transition dynamic optimization of the living nitrooxide-mediated radical polymerization of styrene in a tubular reactor
A.G. Zitlalpopoca-Soriano, E. Vivaldo-Lima, A. Fores-Tlacuahuac
<table>
<thead>
<tr>
<th>No.</th>
<th>Title</th>
<th>Authors</th>
<th>Journal</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>08/001</td>
<td>Arborescent polystyrene-graft-poly(2-vinylpyridine) copolymers as unimolecular micelles: solubilization studies</td>
<td>G. Njikang, M. Gauthier, J. Li</td>
<td>Polymer, Acc.,</td>
<td>01/08</td>
</tr>
<tr>
<td>08/002</td>
<td>Estimating reactivity ratios from triad fraction data</td>
<td>E. Hauch, X. Zhou, T.A. Duever and A. Penlidis</td>
<td>Macromol Symp., Acc.,</td>
<td>02/08</td>
</tr>
<tr>
<td>08/003</td>
<td>Self-assembly of arborescent polystyrene-graft-poly(ethylene oxide) copolymers at the air-water interface</td>
<td>G.N. Njikang, L. Cao, M. Gauthier</td>
<td>Macromol. Chem. And Phys., Acc.,</td>
<td>02/08</td>
</tr>
<tr>
<td>08/004</td>
<td>Improvements in the hydrogenation of nitrile rubber using Wilkinson’s catalyst</td>
<td>N.T. McManus, G.L. Rempel</td>
<td>Rubber Chem and Tech., Acc.,</td>
<td>03/08</td>
</tr>
<tr>
<td>08/005</td>
<td>Hydrosilylation of impact polypropylene co-polymer in a twin-screw extruder</td>
<td>M.P. Bulsari, C. Tzoganakis, A. Penlidis</td>
<td>J. Elast. Plastics, Acc.,</td>
<td>03/08</td>
</tr>
</tbody>
</table>
A tensile strain hardening test indicator of environmental stress cracking resistance
J.J. Cheng, M.A. Polak, A. Penlidis

Effect of side-chain length on the side-chain dynamics of a α-helical poly(L-glutamic acid) as probed by a fluorescence Blob model
M.W. Ingratta and J. Duhamel
J. Phys. Chem B, Acc., 04/08

A case for using randomly labeled polymers to study long range polymer chain dynamics by fluorescence
M.W. Ingratta, J. Hollinger, J. Duhamel
J. Am. Chem. Soc., Acc., 05/08

Large-scale synthesis of arborescent polystyrenes
A. Munam and M. Gauthier

A replicated investigation of nitroxide-mediated radical polymerization of styrene over a range of reaction conditions

Asymmetric caging in soft colloidal mixtures
Nature Materials, Acc., 07/08

Arborescent amphiphilic copolymers as templates for the preparation of gold nanoparticles
J. Dockendorff, M. Gauthier, A. Mourran and M. Moller
Macromol. (communication to the editor), Acc., 08/08

Temperature-responsive supramolecular assembly and morphology of arborescent copolymer micelles with a solvophilic core—solvophobic shell structure
S. I. Yun, G.E. Gadd, V. Lo, M. Gauthier, A. Munam
Macromol., Acc., 08/08

Pressure- and temperature-induced association of arborescent polystyrene- graft-poly(ethylene oxide) copolymers at the air-water interface
G.N. Njikang, L. Cao, M. Gauthier
Langmuir, Acc., 09/08
08/018  **Modeling of ethylene polymerization with difunctional initiators in tubular reactors**  
P.K.F. Khazraei, R. Dhib  

08/019  **Sustained release properties of arborescent polystyrene-graft-poly (2-vinylpyridine) copolymers**  
G.N. Njikang, M. Gauthier, J. Li  
Polymer, Acc., 10/08

08/020  **Thermal polymerization of styrene in the presence of TEMPO**  
A. Nabifar, N.T. McManus, E. Vivaldo-Lima, L.M.F. Lona and A. Penlidis  
Chem Eng. Sci, Acc., 10/08

08/021  **An experimental study on the free-radical copolymerization kinetics with crosslinking of styrene and divinylbenzene in supercritical carbon dioxide**  
P.R. Garcia-Moran, G.Jaramillo-Soto, M.E. Albores-Velasco, E. Vivaldo-Lima  
Macrom. React. Eng., Acc., 10/08

08/022  **Modified frontal polymerization of poly(methyl methacrylate)**  
JAPS, Acc., 07/08

08/023  **Modeling of polymerization kinetics and molecular weight development in the microwave-activated nitroxide-mediated radical polymerization of styrene**  
J.J. Hernandez-Meza, G. Jaramillo-Soto, P.R. Garcia-Moran, J. Palacios-Alquisira and E. Vivaldo-Lima  
Macromol. React. Eng., Acc., 12/08
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. Scorah, R. Dhib, A. Penlidis
Macromol. React. Eng., Acc., 12/06

07/005 Synthesis of low density poly(ethylene) using nickel iminophosphonamide 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/Si02-SMAO/AIR3 and Me2Si(RInd)2ZrCl2/MAO (R=Me, H)
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-Harthi, L.S. Cheng, J.B.P. Soares, L.C. Simon

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-Harthi, 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

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
Correlating pyrene excimer formation with polymer chain dynamics in solution. Possibilities and limitations.
M. Ingratta and J. Duhamel
Macomol., Acc., 06/07

Dynamic Monte Carlo simulation of olefin polymerization in stopped-flow reactors
J.B.P. Soares and T. Nguyen
Macomol Symp., Acc., 08/07

Nitrooxide-mediated controlled degradation of polypropylene
A. Psarreas, C. Tzoganakis, N. McManus and A. Penlidis

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

Copolymer composition control policies: characteristics and applications
T. Fujisawa and A. Penlidis

Toward a living radical polymerization of styrene by using dithiolactones as a new type of mediating agent
Macromol. Rapid Comm., Acc., 10/07

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

Nanofilled silicone dielectrics prepared with surfactant for outdoor insulation applications
I. Ramirez, E.A. Cherney, S. Jayaram and M. Gauthier

Simulation of polymerization and long chain branch formation in a semi-batch reactor using two single-site catalysts
S. Mehdiaabadi, J.B.P.Soaress, A. H. Dekmezian
Macromol. React. Eng., Acc., 11/07
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

Arborescent polystyrene-graft-poly(tert-butyl methacrylate) copolymers
R.A. Kee and M. Gauthier

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

Structure and optical properties of natural biopolymers chitin and chitosan
Physica Status Solidi (a)-Applications and Materials Science, Acc., 12/07
06/001 Mathematical modelling of atom-transfer radical polymerization using bifunctional initiators
M. Al-Harthi, 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-Harthi, 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

06/006 Controlled free-radical copolymerization kinetics of styrene and divinylbenzene by bimolecular NMRP using TEMPO and dibenzoyl peroxide
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. Scorah, 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. Scorah, 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
Of the uses of the pyrene label for fluorescence studies of polymeric interfaces
J. Duhamel

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

NMR analysis of butyl acrylate-methyl methacrylate-alpha methyl styrene terpolymers
N.T. McManus and A. Penlidis
J. Appl. Polym. Sci., Acc., 03/06

Studies of copolymers of 3-methacryloyloxy styryl-4’-methylphenyl ketone and methyl methacrylate
R. Santhi, K. V. Babu, A. Pelidis, S. Nanjundan
React. & Funct. Polym., Acc., 04/06

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

Dynamic Monte Carlo Simulation of Atom-Transfer Radical Polymerization
M. Al-Harthi, J.B.P. Soares, L.C. Simon
Macromol. Mtls and Engg, Acc., 05/06

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

Mathematical modeling of crystallization analysis fractionation (Crystaf) of polyethylene
S. Anantawaraskul, J.B.P. Soares, P. Jirachaithorn, J. Limtrakul

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**

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. Scorah, 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)**

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

06/027  **Dynamic Monte Carlo simulation of ATRP with bifunctional initiators**
M. Al-Harthi, J.B.P. Soares and L.C. Simon
Macromol. React. Eng., Acc., 09/06
<table>
<thead>
<tr>
<th>Date</th>
<th>Title</th>
<th>Authors</th>
<th>Journal/Book</th>
<th>Publication Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>and di-functional initiators</td>
<td>A. Penlidis</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>nitroxide-mediated radical processes over a range of reaction</td>
<td>A. Penlidis</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>conditions</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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
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. Scorah, 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. Scorah, 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  

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
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
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

Dendrigraft polymers: macromolecular engineering on a mesoscopic scale
S.J. Teertstra and M. Gauthier
Progress in Polym. Sci., Acc., 01/04

Blob model analysis of the pH-induced fluorescence quenching of two anthracene-labeled poly(2-vinylpyridine)s
J. Duhamel
Macromolecules, Acc., 01/04

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

Homopolymer and Copolymers of 4-Benzylxocarbonylphenyl 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

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

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

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

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
<table>
<thead>
<tr>
<th>Date</th>
<th>Title</th>
<th>Authors</th>
<th>Journal/Journal details</th>
</tr>
</thead>
<tbody>
<tr>
<td>04/011</td>
<td>Fractionation</td>
<td>J.B.P. Soares</td>
<td>Encyclopedia of Polymer Science and Technology John Wiley and Sons, 2004</td>
</tr>
<tr>
<td>04/012</td>
<td>The refractive index increment (dn/dc) using GPC for the alpha-methyl styrene/methyl methacrylate copolymer at 670 nm in tetrahydrofuran</td>
<td>M.J. Leamen, N.T. McManus and A. Penlidis</td>
<td>J. Appl. Polym. Sci., Acc., 03/04</td>
</tr>
<tr>
<td>04/014</td>
<td>Free radical terpolymerization of butyl acrylate/methyl methacrylate and alpha methyl styrene at high temperature</td>
<td>N.T. McManus, G. Hsieh and A. Penlidis</td>
<td>Polymer, Acc., 05/04</td>
</tr>
<tr>
<td>04/018</td>
<td>Free radical terpolymerization of butyl acrylate/methyl methacrylate and alpha methyl styrene at high temperature</td>
<td>N.T. McManus, G. Hsieh and A. Penlidis</td>
<td>Polymer, Acc., May 2004</td>
</tr>
<tr>
<td>ID</td>
<td>Title</td>
<td>Authors</td>
<td>Journal/Publication Details</td>
</tr>
<tr>
<td>------</td>
<td>----------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>04/20</td>
<td>Hydrosilylation of polypropylene through reactive extrusion</td>
<td>M.P. Bulsari, C. Tzoganakis, A. Penlidis</td>
<td>ANTEC SPE 2004 63 (3), 3865-3869</td>
</tr>
<tr>
<td>04/22</td>
<td>Coordination Polymerization</td>
<td>J.B.P. Soares, L.C. Simon</td>
<td>Handbook of Polymer Reaction Engineering, T. Meyer and J.T.F. Keurentjes (Eds.), Wiley-VCH, Weinheim</td>
</tr>
<tr>
<td>04/24</td>
<td>Global analysis of the fluorescence decays of a pyrene-labelled polymer using a Blob model</td>
<td>H. Siu and J. Duhamel</td>
<td>Macromolecules, Acc., September 2004</td>
</tr>
</tbody>
</table>
Studies on photocrosslinkable copolymers of 4-methacryloyloxyphenyl-3',4’-dimethoxystyryl ketone and methyl methacrylate
P. Selvam, K. Victor Babu, A. Penlidis, S. Nanjundan
Free radical polymerisation of styrene with a new tetrafunctional peroxide initiator
S. Fityani-Trimm, R. Dhib and A. Penlidis
Macromol. Chem. Phys, Acc. 01/03

Polypropylene obtained with in-situ supported metallocene catalysts
J. Mol. Catalysis, Acc., 01/03

Chemical composition distribution of multicomponent copolymers
S. Anantawaraskul, J.B.P. Soares and P.M. Wood-Adams
Macromol. Theory Simul., Acc., 01/03

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

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

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

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

Copolymerization of 4-benzyloxy carbonylpheny 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

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
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

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

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

Comparison of fault detection techniques
S.J. Lou, H. Budman and T.A. Duever

Copolymers of 4-benzyloxycarbonylphenyl methacrylate with methyl methacrylate: synthesis, characterization and reactivity ratios
C.S. Jone Selvamalar, A. Penlidis and S. Nanjundan

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

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

Synthesis of arborescent polystyrene-graft-polysoprene copolymers using acetylated substrates
J. Li, M. Gauthier, S.J. Teertstra, H. Zu and S.S. Sheiko
Macromolecules, Acc., 12/03

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
A “Round-Robin” experiment in high-temperature gel-permeation chromatography
L. D’Agnillo, J.B.P. Soares, A. Penlidis

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

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

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

Arborescent polystyrene- graft-poly(2-vinylpyridine) copolymers: synthesis and enhanced polyelectrolyte effect in solution
R.A. Kee and M. Gauthier
Macromolecules, Acc. 06/02

Sulfobetaine Zwitterionomers based on n-butyl acrylate and 2-ethoxyethyl acrylate: physical properties
M. Gauthier, T. Carrozzella, G. Snell

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

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

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

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

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

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
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. Sáha

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

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
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

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

Surface characteristics of hydrosilylated polypropylene
J. Long, C. Tzoganakis, P. Chen
J. Appl. Polym. Sci., Acc: 10/02

Copolymerization of 4-benzyloxy carbonyl phenyl acrylate with methyl methacrylate: synthesis, characterization and determination of reactivity ratios
P.S. Vijayanand, A. Penlidis and S. Nanjundan

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
Control of coating properties of LDPE through melt strength measurements
K. Xiao, C. Tzoganakis and H. Budman
Control Engineering Practice, Acc. 01/01

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

Mathematical modelling of the microstructure of polyolefins made by coordination polymerization. A review.
J.B.P. Soares
Chem. Eng. Sci. Acc. 02/01

Numerical simulations of polymer flows in flat spiral dies
M. Zatloukal, C. Tzoganakis, J. Perdikoulias and P. Sáha
Polym. Eng. & Sci. Acc. 02/01

Copolymerization with depopagation: 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

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

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

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

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. Carrozella and A. Penlidis

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

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

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

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

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
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

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

Copolymerization with depropagation: a study of $\alpha$-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

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

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

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

Arborescent polymers: designed macromolecules with a dendritic structure
M. Gauthier

Synthesis of $\omega$ and $\alpha$-$\omega$ sulfonatotelechelics 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

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

Modelling of fractionation in crysaf 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
Modification of rheological properties of LDPE for coating applications
K. Xiao, C. Tzoganakis and H. Budman
I & EC Research, Acc. 09/00

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

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

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

Proton Uptake by Poly(2-vinylpyridine) Coatings
N. Tantavichet, M.D. Pritzker and C.M. Burns
Journal of Applied Polymer Science: Acc. 11/00

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
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

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

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

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

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

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

Combined metallocene catalysts: an efficient technique to manipulate long-chain branching frequency of polyethylene
D. Beigzadeh, J.B.P. Soares and T.A. Duever

Arborescent polymers: highly branched homo- and copolymers with unusual properties
M. Gauthier
Ionic Polymerizations and Related Processes
Book chapter, published August 1999, Kluwer Academic

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. Perdikoulias
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
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

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
A Comprehensive Simulator/Database Package for Reviewing Free-Radical Copolymerizations
J. Gao and A. Penlidis

Use of Hydrogen for the Tailoring of the Molecular Weight Distribution of Polyethylene in Bimetallic Supported Metalloocene Catalyst System
J. D. Kim, J.B.P. Soares and G.L. Rempel
Macromol. Rapid Commun., Acc. 01/98

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

Second Virial Coefficient of Arborescent Polystyrenes and Its Temperature Dependence
M. Gauthier, J. Chung, L. Choi and T.T. Nguyen

Melt Rheology of Arborescent Graft Polystyrenes
M.A. Hempenius, W.F. Zoetelief, M. Gauthier and M. Moller
Macromolecules, Acc. 02/98

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

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

Functionalization of Ethylene-Propylene-Diene Terpolymer Via the Alder Ene Reaction
M.R. Thompson, C. Tzoganakis and G.L. Rempel

A Parametric Study of the Terminal Maleation of Polypropylene Through an Alder Ene Reaction
M.R. Thompson, C. Tzoganakis and G.L. Rempel
Hydrosilylation of Terminal Double Bonds in Polypropylene Through Reactive Processing
H. Malz and C. Tzoganakis

Measurements and Modelling of PS/Supercritical CO₂ Viscosities
M. Lee, C.B. Park and C. Tzoganakis

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

Use of DOE for Designing Formulations for Direct Injection Foams
T.A. Duever, C. Mahabir, R. Janiczak and J. Lee

The Refractive Index Increment for a Poly-α-Methylstyrene at 633 nm in Tetrahydrofuran
N.T. McManus and A. Penlidis

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

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

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

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

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

98/021  Chemical modification of poly(methylphenylsiloxane)
J. Chung, L.M. Killam, M. Gauthier

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

98/023  Manufacturing of polyolefins with combined metalloocene 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

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. Krukonis

98/029  Polyolefin analysis by single-step crystallization fractionation
L.J.D. Britto, J.B.P. Soares, A. Penlidis and B. Monrabel

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

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
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

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

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 Cp₂ZrCl₂/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  

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  

97/019  **Extrusion of PE/PS Blends with Supercritical Carbon Dioxide**  
M. Lee, C. Tzoganakis and C.B. Park  
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

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
96/012  **Optimal Sensor Selection for Copolymerization Processes**  
A. Penlidis and T.A. Duever  

96/013  **Emulsion Terpolymerization of Butyl Acrylate/Methyl Methacrylate/Vinyl Acetate: Experimental Results**  
M. A. Dubé and A. Penlidis  

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  

96/015  **Mathematical Modelling of Emulsion Copolymerization of Acrylonitrile/Butadiene**  
M.A. Dubé and A. Penlidis  

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  
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  

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  

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
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

A Hierarchical Data Analysis of a Replicate Experiment in Emulsion Terpolymerization
M.A. Dubé and A. Penlidis
AIChE J., Acc: 11/95

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

The Effect of Benzyl Alcohol on Pulsed Laser Polymerization of Styrene and Methylnethacrylate
K.F. O'Driscoll and M.J. Monteiro

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

Metallocene/Aluminoxane Catalysts for Olefin Polymerization. A Review
J.B.P. Soares and A.E. Hamielec

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

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

Analyzing TREF Data by Stockmayer's Bivariate Distribution
J.B.P. Soares and A.E. Hamielec

Temperature Rising Elution Fractionation of Linear Polyolefins
J.B.P. Soares and A.E. Hamielec
Polymer, 36, (8), 1639-1654, 1995
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  

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  

94/005  Polymer Reaction Engineering: From Reaction Kinetics to Polymer Reactor Control  
A. Penlidis  

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  

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
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

Ethylene-Vinyl Acetate Emulsion Copolymerization: Monomer Partitioning and Preliminary Modelling
P.J. Scott, A. Penlidis and G.L. Rempel

J. Colloid and Interface Sci., Acc. 11/94

Correction for Interdetector Volume in Size Exclusion Chromatography (SEC)
M.G. Pigeon and A. Rudin

The Effect of Antioxidant on Peroxide Modification of LLDPE
T. Bremner and A. Rudin

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

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

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

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

Estimation of Hansen Solubility Parameters for Hydroxylethyl and Hydroxylpropyl Cellulose Through Molecular Simulation
P. Choi, T.A. Kavassalis and A. Rudin
I and EC Res., Acc. 1994
<table>
<thead>
<tr>
<th>Identifier</th>
<th>Title</th>
<th>Authors</th>
<th>Journal/Conference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year</td>
<td>Title</td>
<td>Authors</td>
<td>Journal/Conference</td>
</tr>
<tr>
<td>------</td>
<td>----------------------------------------------------------------------</td>
<td>---------------------------------------------------</td>
<td>--------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>of Rubber Particle Parameters</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Styrene</td>
<td></td>
<td></td>
</tr>
<tr>
<td>93/03</td>
<td>Effect of Impurities on Continuous Solution Methyl Methacrylate</td>
<td>D.C.H. Chien, A. Penlidis, A.D. Lawrence</td>
<td>IEEE Control Applications (ref. conf. proc.) Vancouver,</td>
</tr>
<tr>
<td></td>
<td>Polymerization Reactors: Open-loop Process Identification and Closed-</td>
<td></td>
<td>September 13-16, 1993; Acc. 05/93</td>
</tr>
<tr>
<td></td>
<td>Loop Real-Time Control Results</td>
<td></td>
<td></td>
</tr>
<tr>
<td>93/04</td>
<td>A Review of Polyethylene-Polypropylene Blends and Their Compatibilization</td>
<td>J.W. Teh, A. Rudin, J.C. Keung</td>
<td>Adv. in Poly. Tech.; Acc. 05/93</td>
</tr>
<tr>
<td></td>
<td>Ratio Estimation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>93/06</td>
<td>Thermal Behavior and Morphology of Rubber-Modified Epoxies</td>
<td>W.N. Kim, C.E. Park, C.M. Burns</td>
<td>J. Appl. Poly. Sci.; Acc. 05/93</td>
</tr>
<tr>
<td>93/07</td>
<td>Branching Measurement by Analytical Tref; A Fully Quantitative</td>
<td>M.G. Pigeon, A. Rudin</td>
<td>J. Appl. Poly. Sci.; Acc. 06/93</td>
</tr>
<tr>
<td></td>
<td>Technique</td>
<td></td>
<td></td>
</tr>
<tr>
<td>93/08</td>
<td>Compatibilization of Polystyrene-Polyethylene Blends Through Reactive Processing</td>
<td>J.W. Teh, A. Rudin</td>
<td>Adv. in Poly. Blends and Alloy Tech. V; Acc. 06/93</td>
</tr>
<tr>
<td>93/09</td>
<td>Blown-Film Extrusion of Post-Consumer Recycled LLDPE Film</td>
<td>S.J. Hébert, C. Tzoganakis, J. Perdikoulias</td>
<td>J. Plastic Film and Sheeting; Acc. 08/93</td>
</tr>
<tr>
<td></td>
<td>Factorial Experiments for Process Optimization</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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

93/017 Reactor Design Considerations for Gas-Liquid Emulsion Polymerizations: The Ethylene-Vinyl Acetate Example
P.J. Scott, A. Penlidis, G.L. Rempel

93/018 Residence Time Distribution in Spiral Mandrel Die Design
J. Perdikoulis, C. Tzogranakis, A. Penlidis

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  

**92/002 Catalytic Inhibition in Free Radical Polymerizations**  
K.G. Suddaby, K.F. O'Driscoll, A. Rudin  

**92/003 Prediction of Hydrodynamic Properties of Polymer Solutions**  
J.W. Qian, and A. Rudin  

**92/004 Prediction of Thermodynamic Properties of Polymer Solutions**  
J.W. Qian, and A. Rudin  

**92/005 Synthesis of Core Shell Latexes by Redox Initiation at Ambient Temperatures**  
S. Lee and A. Rudin  

**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  

**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  

**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  
Consistent Values of Rate Parameters in Free Radical Polymerization Systems. Part II: Outstanding Dilemmas and Recommendations

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)

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)

Use of Continuous Viscometer and Light Scattering Detectors in Characterization of Polylefins: Comparisons of Data From Individual and Combined Detectors
S. Pang and A. Rudin

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)

Crosslinking Reactions in Pigmented Olefinic Polymers
C. Houde, H.P. Schreiber, A. Rudin

Conformations of Telechelic Ionomers in W/O Microemulsions
H.-F. Eicke, M. Gauthier, R. Hilfiker, R.P.W.J. Struis and G. Xu

Supermicron Polybutyl Acrylate/Polystyrene Core-Shell Latexes
D.G. Cook, A. Rudin and A. Plumtree

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

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
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

The Geometry of 2-Block Partial Least Squares Regression
A. Phatak, P. M. Reilly, and A. Penlidis
Communications in Statistics, accept. Feb/92

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

Persistence of Regions with High Segmental Density in Polyethylene Melts
T. Bremner and A. Rudin

Catalytic Hydrogenation of Diene Polymers: Part II. Kinetic Analysis and Mechanistic Studies on the Hydrogenation of Styrene-Butadiene Copolymers in the Presence of RhCl(PPh₃)₃
X. Guo, P. J. Scott and G. L. Rempel
J. Mol. Cat., in press, Mar/92

Effects of Additions of High Density Polyethylene on the Processability of Linear Low Density Polyethylene
E. Karbashewski, L. Kale, A. Rudin and W. J. Tchir
J. Appl. Poly. Sci., accept. Apr/92

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

Homogeneous Catalytic Hydroformylation of Styrene-Butadiene Copolymers in the Presence of HRh(CO)(PPh₃)₃
P. J. Scott and G. L. Rempel
Macromol. in press Apr/92

Homo- and Co-polymerization of Ethylene and Styrene Using TiCl₃(AA)/Methylaluminoxane
R. Mani and C. M. Burns
Macromol. accept. Jul/91

Polymer Reaction Engineering: Modelling Considerations for Control Studies
A. Penlidis, S. R. Ponnuswamy, C. Kiparissides and K. F. O'Driscoll

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

92/034  The Effect of Comonomer Sequence Distribution on TREF Branching Distributions
E. Karbashefski, 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

92/036  Copolymerization of Ethylene and Vinylcyclohexane Using Soluble Ziegler-Nata Catalysts
R. Mani and C. M. Burns
Polymer, accept. Jul/92

92/037  Determination of Molecular Weight Distributions of Copolymers by SEC
A. Rudin

92/038  Mechanism of Shear Modification of Low Density Polyethylene
M. van Prooyen, T. Bremner and A. Rudin

92/039  The Effect of Plasticization and pH on Film Formation of Acrylic Latexes
S. T. Eckersley and A. Rudin

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 Transions
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

92/046  Size Exclusion Chromatographic Measurement of PVC Molecular Weight Distributions
S. Pang and A. Rudin

92/047  Peroxide Modification of Linear Low Density Polyethyylene: A Comparison of Dialkyl Peroxides
T. Bremner and A. Rudin

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

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

91/002  **A Moderately Water-Soluble Azo Initiator for Emulsion Polymerizations**
S. Lee, D. Mackay and A. Rudin

91/003  **Melt Spinning of Shear Modified Plasticized Polystyrene**
J. W. Qian and A. Rudin

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

91/006  **A Kinetic Investigation of Butyl Acrylate Polymerization**
M.A. Dubé, K. Rilling and A. Penlidis

91/007  **Educational Applications of a Free-Radical Polymerization Simulator**
M.E. Kuindersma, A. Penlidis and K.F. O'Driscoll

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

91/009  **Use of a Modern Polymerization Pilot-Plant for Undergraduate Control Projects**
S.A. Mendoza-Bustos, A. Penlidis and W. R. Cluett

91/010  **A Method for Flexibility Analysis of Continuous Processing Plants**
D.C.H. Chien, P.L. Douglas and A. Penlidis

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)
Chemical Modification of Polymers: Catalytic Hydroformylation and Hydroxymethylation of Styrene-Butadiene Copolymers
F. Sibtain and G.L. Rempel

Effects of Polymer Structure on the Onset of Processing Defects in LLDPE's
E. Karbashewski, L. Kale, A. Rudin, H.P. Schreiber, W. J. Tchir

Introduction and Overview
A. Penlidis and T.W. Hoffman
CJChE, 69 (3), (1991)
(Special thematic issue on PRE; entire issue may be of interest)

Properties and Morphology of Polystyrene and Linear Low Density Polyethylene Polyblend and Polyalloy
J. W. Teh and A. Rudin

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

Measurement of Particle Size Distributions with a Disc Centrifuge; Data Analysis Considerations
M. J. Devon, T. Provder and A. Rudin

The Importance of Residence Time Analysis in Coextrusion Die Design
J. Perdikoulias and C. Tzoganakis
J. of Plastic Film and Sheeting, 7, (2) 118 (1991)

Entanglement Spacing Variability in Blends of Narrow Molecular Weight Distribution Polystyrenes
D. K. Potter and A. Rudin
Macromol. 25, 238 (1991)

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)

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)
Control of Core-Shell Latex Morphology
S. Lee and A. Rudin
ACS Advances in Chemistry Symposia Series, 492, 234 (1991)
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)

Effects of Latex Particle Morphology on Film Formation
M. J. Devon, J. Gardon, G. Roberts and A. Rudin

Reactive Extrusion of Poly(vinyl chloride) Compounds with Polyethylene and Ethylene-Vinyl Acetate Copolymers
P. van Ballegooie and A. Rudin

Effects of Resole Phenol Adhesives on the Crystallinity of Cellulose
S. So, J.W. Teh, A. Rudin, W. J. Tchir and C. A. Fyfe

Drawing Behavior of Solution Modified Polyethylene
T.M. Malik, P.J. Carreau, H.P. Schreiber, A. Rudin and W. Tchir

Analysis of the Formation and Curing Reactions of Resole Phenolics
S. So and A. Rudin

Melt Flow Index Values and Molecular Weight Distributions of Commercial Thermoplastics
T. Bremner, D.G. Cook and A. Rudin

Optimization of a Batch Polymerization Reactor at the Final Stage of Conversion II. Molecular Weight Constraint
K. F. O'Driscoll and S.R. Ponnuswamy

Adaptive Control of Conversion in a Simulated Solution Polymerization CSTR
S.A. Mendoza-Bustos, A. Penlidis and W. R. Cluett

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

On-line Sensors for Polymerization Reactors
D.C.H. Chien and A. Penlidis
<table>
<thead>
<tr>
<th>Page</th>
<th>Title</th>
<th>Authors</th>
<th>Journal/Conference/Other Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>90/14</td>
<td><strong>The Mechanism of Film Formation from Polymer Latexes</strong></td>
<td>S. T. Eckersley and A. Rudin</td>
<td>J. Coat. Technol., <strong>62</strong> (780), 89-100 (1990)</td>
</tr>
<tr>
<td>90/19</td>
<td><strong>Chemistry in Adsorbed Monolayers 2. Thermal and Photochemical Grafting Reactions at the Polymer-Filler Interface</strong></td>
<td>C. E. McGarvey and D. A. Holden</td>
<td>Langmuir, <strong>6</strong> (6), 1123-1132 (1990)</td>
</tr>
</tbody>
</table>
Device Applications of Langmuir-Blodgett Films. Electrophotographic Photoreceptors Incorporating Multilayers of Fluorenylidene and Carbazole-containing Surfactants as Charge-blocking Elements

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

89/002 **Continuous Emulsion Polymerization: Design and Control of CSTR Trains**
A. Penlidis, J.F. MacGregor and A. E. Hamielec

89/003 **Penultimate Unit Effects on Sequence Length Distribution**
K. F. O'Driscoll and T. P. Davis

89/004 **Use of Chilled Die Lips to Improve Production Rates in Extrusion of Polyethylenes**
D.G. Cook, R. Cooke and A. Rudin

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

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

89/008 **Applications of Monte Carlo Methods to Sequence Distributions in Polymers**
T.A. Duever, K.F. O'Driscoll and P.M. Reilly

89/009 **Stabilization of PS/PMMA Blends by in-situ Compatibilization with Graft Copolymers**
P. van Ballegooie and A. Rudin

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

89/011 **Comments on the Copolymerization of Styrene and Methylmethacrylate with their Perdeutero Analogues**
K. F. O'Driscoll and T.P. Davis
The Rate of Copolymerization of Styrene and Methylmethacrylate I. Low Conversion Kinetics
K.F. O'Driscoll and J. Huang

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

New Process for Ultradrawn Polyethylene Structures
A. Rudin, W. J. Tchir, H.P. Schreiber, R. Gagnon and R. Collacott

High Conversion Copolymers of Styrene and Ortho-Vinylbenzaldehyde
P. van Ballegooie and A. Rudin

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)

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)

Homogeneous Catalytic Hydrogenation of Polybutadiene
N.A. Mohammadi and G. L. Rempel

Synthesis and Monolayer Spreading Behaviour of Surface-active Compounds Containing Electron and Hole-transporting Groups. 1. Fluorenylidene Derivatives

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

Time-resolved Luminescence
D. A. Holden
89/022  Stereoregularity in Synthetic β-hydroxybutyrate and β-hydroxyvalerate Homopolyesters

89/023  Isodimorphism in Synthetic Polyβ-Hydroxybutyrate-co-β-Hydroxyvalerate): Stereoregular Copolyesters from Racemic β-Lactones
S. Bloembergen and David A. Holden

89/024  Excimer Kinetics in Copolymers Containing Isolated Pairs of Chromophores

89/025  Copolymerization
A.E. Hamielec, J. F. Macgregor and A. Penlidis

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
1988

88/001  Photochemistry
D. A. Holden

88/002  Grafting Behavior of Copolymers of Styrene and ortho-Vinylbenzaldehyde
P. van Ballegooie and A. Rudin

88/003  Effects of Molecular Structure on the Properties of Ethylene Vinyl Acetate Copolymers
D.C. Eagles and A. Rudin

88/004  Impurity Effects in Emulsion Polymerization Reactors: Case I Kinetics
A. Penlidis, J.F. MacGregor and A.E. Hamielec

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

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
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

88/012 Reactive Extrusion of Polystyrene/Polyethylene Blends
P. van Ballegooie and A. Rudin

88/013 Poly(β-hydroxyalkanoates): Biorefinery Polymers in Search of Applications

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

88/015 Catalytic Hydrogenation, Hydroformylation and Hydroxymethylation of Polybutadiene: Synthesis and Characterization
N. A. Mohammadi and G. L. Rempel

88/016 Solution Blending of Polystyrene and Poly(methyl methacrylate)
C.M. Burns and W. N. Kim

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
A Simple Technique for Measuring the Refractive Index of Polymer Latexes at Various Wavelengths  
M.J. Devon and A. Rudin  

Specific Refractive Index Increments of Ethylene-Vinyl Acetate Copolymers in Trichlorobenzene Solutions at 145°C  
D.C. Bugada, R. Gagnon and A. Rudin  

Property Modifications in Polystyrene Recovered from Solution  
H. P. Schreiber, A. Ajji, Y. Li and A. Rudin  

Sizes of Long Branches in Low Density Polyethylenes  
D.C. Bugada and A. Rudin  

Branching in Low Density Polyethylene by $^{13}$C-NMR  
D.C. Bugada and A. Rudin  

Long Chain Branching Indices of Low Density Polyethylenes from Size Exclusion Chromatography and $^{13}$C-NMR Spectroscopy  
D.C. Bugada and A. Rudin  

Molecular Weight Distributions in Free Radical Polymerizations  
A. Rudin  

Multicomponent Free-radical Polymerization in Batch, Semi-batch and Continuous Reactors  
A. E. Hamielec, J.F. MacGregor and A. Penlidis  

Determination of Reactivity Ratios in Copolymerization  
K.F. O'Driscoll and P.M. Reilly  

Synthesis of Crystalline $\beta$-Hydroxybutyrate and $\beta$-Hydroxyvalerate Copolyesters by Coordination Polymerization of $\beta$-Lactones  
Macromol. 20, 3086-3089 (1987)
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)

Photochemistry of Reactive Surface-active Compounds in Adsorbed Monolayers
D. A. Holden, J. W. Taylor and D. Clausen
Tetrahedron, 43, 1671-1678 (1987)

The Triplet Antenna Effect in Poly(acetonaphthyl Methacrylate)
D. A. Holden and A. Safarzadeh-Amiri
Polymer Photophysics, ACS Symposium Series 358, 252-263 (1987)

Catalytic Hydrogenation of Unsaturated Nitrile Polymers
N.A. Mohammadi and G.L. Rempel
Macromol. 20, 2362-2368 (1987)

Thermal Behavior Morphology and the Determination of the Flory-Huggins Interaction Parameter of Polycarbonate-Polystyrene Blends
W. N. Kim and C. M. Burns

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)

Characterization of Polyethylene Performance in Simulated Film and Fibre Extrusion
D. Cook, A. Rudin, H.P. Schreiber and J. Young
<table>
<thead>
<tr>
<th>No.</th>
<th>Title</th>
<th>Authors</th>
<th>Journal and Volume, Pages (Year)</th>
</tr>
</thead>
</table>
Effects of Chromophore Environment on the Photophysics of poly (2-isopropenyl napthalene)
D.A. Holden, L. Corey, J. Kovarova and J. E. Guillet
Macromol. 19, 1180-1186 (1986)

Chemical Modification of Polydienes, 3a) Copolymers with Poly(Tetrahydrofuran) by Grafting--from Butadiene Polymers
G.G. Cameron, M.Y. Qureshi and A. Rudin
<table>
<thead>
<tr>
<th>Volume</th>
<th>Title</th>
<th>Authors</th>
<th>Journal</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>85/009</td>
<td>Monte Carlo Simulation of Polymerization with Reversible Chain Transfer</td>
<td>K. F. O'Driscoll</td>
<td>Macromol., 18, 1508-1510 (1985)</td>
<td></td>
</tr>
<tr>
<td>85/011</td>
<td>Fluorocarbon Elastomer Processing Aid in Film Extrusion of Linear Low Density Polyethylene</td>
<td>A. Rudin, A. T. Worm and J. E. Blacklock</td>
<td>J. Plast. Film Sheet., 1, 189-204 (1985)</td>
<td></td>
</tr>
</tbody>
</table>
85/013  Compatability Studies of Polystyrene--Polybutadiene Blends by Thermal Analysis
W. N. Kim and C. M. Burns

85/014  The Effect of Multifunctional Initiators on Molecular Weight Distribution in Free Radical Polymerization
K. F. O'Driscoll and J. Bevington

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

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
1984

84/001 An Engineering Approach to Polymer Solution Properties
C. M. Kok and A. Rudin

84/002 High Temperature Size Exclusion Chromatography of Polyethylene
V. Grinshpun, K.F. O'Driscoll and A. Rudin

84/003 Monte Carlo Simulation of Sequence Distributions in Step Growth Copolymerization
A.F. Johnson and K.F. O'Driscoll

84/004 Characterization of Linear Low Density Polyethylene by Capillary Rheometry
J. W. Teh, A. Rudin and H. P. Schreiber

84/005 Shear Modification of a Linear Low Density Polyethylene
J.W. Teh, A. Rudin and H. P. Schreiber

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

84/007 Polycarbonate Blends with Polystyrene and Polypropylene
A. Rudin and N. E. Brathwaite

84/008 A Model Illustrating the Relationship Between Fluorescence Polarization and Sequence Distribution in Statistical Copolymers
D. A. Holden

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 $^{13}$C 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

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

83/006  The Use of the Error-in-Variables Model in Terpolymerization
T.A. Duever, K.F. O'Driscoll and P.M. Reilly

83/007  Compositional Heterogeneity in Low Molecular Weight Copolymers as Revealed by Monte Carlo Simulation
K.F. O'Driscoll

83/008  Estimation of Solubility Parameters from Solution Properties of Polymers
C.M. Kok and A. Rudin
1982

82-001 Rheokinetics of the Polymerization of N-Lauryl Methacrylate
K.F. O'Driscoll and L. T. Kale

82-002 A Semi-Empirical Method for Prediction of Critical Concentrations for Polymer Overlap in Solution
C.M. Kok and A. Rudin

82/003 Emulsion Copolymerization of Styrene and Methyl Methacrylate
J. M. Goldwasser and A. Rudin

82/004 Prediction of Flory-Huggins Interaction Parameters from Intrinsic Viscosities
C.M. Kok and A. Rudin

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

82/006 Effects of Data Analysis on Accuracy and Precision of GPC Results
W.J. Tchir, A. Rudin and C.A. Fyfe

82/007 Prediction of Sedimentation Coefficients of Random Coil Polymers
C.M. Kok and A. Rudin

82/008 Densimeter Detector in Gel Permeation Chromatography of Copolymers
W.L. Elsdon, J.M. Goldwasser and A. Rudin

82/009 Effects of Water on Starch-g-Polystyrene and Starch-g-Poly(methyl acrylate) Extrudates
A.M. Henderson and A. Rudin
1981

81-001 Gel Permeation Chromatography of Polymer Mixtures
C.M. Kok and A. Rudin

81-002 ESR Study of the Effects of Water, Methanol and Ethanol on Gamma-Irradiation of Starch
A. Henderson and A. Rudin

81-003 Effects of Water, Methanol and Ethanol on Production of Starch-g-Polystyrene Copolymers by Cobalt-60 Irradiation
A. Henderson and A. Rudin

81-004 Comments on Interpretation of Kinetic Parameters from Dynamic Thermogravimetric Experiments (Note)
G.G. Cameron and A. Rudin

81-005 Methylmethacrylate Copolymerization in the Presence of a Template
K. O'Driscoll, I. Capek

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

81-007 Concentration Effects in the Gel Permeation Chromatography of Broad Distribution Polymers
W.L. Elsdon, J.M. Goldwasser and A. Rudin

81-008 Relationship between Hydrodynamic Radius and Radius of Gyration of a Polymer in Solution
C.M. Kok and A. Rudin

81-009 Prediction of Osmotic Pressures of Polymer Solutions
C.M. Kok and A. Rudin

81-010 Prediction of Second Virial Coefficients of Polymer Solutions
C.M. Kok and A. Rudin
1980

80-001 **Oriented Monofilaments from Blends of Poly(Ethylene Terephthalate) and Polypropylene**
A. Rudin, D.A. Loucks and J. M. Goldwasser

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
1979

79-001  **Effect of Solvent on the Termination Rate Constant in Initial Stages of Free Radical Polymerization**
H.K. Mahabadi and A. Rudin

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

79-004  **High Conversion Copolymerization of Styrene and Methyl Methacrylate**
J.M. Dionisio and K.F. O'Driscoll