1999 Fall meeting

1999 FALL NATIONAL ACS MEETING

New Orleans, LA (August 22-26, 1999)

Program Meeting Chair: Warren Ford

Abstract/Preprint Deadline: May 1, 1999

Block Copolymers: Designing Molecules for Applications
Nikos Hadjichristidis, Dept. of Chem. Univ. of Athens, 157 71 Athens, Greece, +301-7249103, e-mail: nhadjich@atlas.uaa.gr; Sam Gido, Dept. of Polymer Sci. and Eng., Univ. of Massachusetts, Amherst, MA 01003, (413) 577-1216, fax (413) 545-0082; Jimmy Mays, Dept. of Chem., Univ. of Alabama, Birmingham, AL 35294, (205) 934-8101, fax (205) 934-2543.

Grafted Polymers: Synthesis and Characterization
Duane Priddy, 438 Bldg., Dow Chemical, Midland, MI 48667, (517)636-5960, fax (517)638-7337, e-mail: dpriddy@dow.com; A. Karim, Polymer Div., NIST, Gaithersburg, MD 20899, (301)976-6588, e-mail: karim@hawkbill.nist.gov.

Optical Polymers: Advances in Optical Fibers - www.cas.usf.edu/chemistry/harmon/invit.html
Julie Harmon, Dept. of Chem., Univ. of S. Florida, Tampa, FL 33620-5250, (813)974-3397, fax (813)974-1733, e-mail: harmon@chuma.cas.usf.edu; G. K. Noren, Fiber Optic Materials Research, 1122 St. Charles St, Elgin, IL 60120, (847)468-7742, fax (847)468-7703, gnoren@dsmsdesptech.com.

Polymers and Liquid Crystals
Christopher Bowman, Dept. of Chemical Engineering U of Colorado, Campus Box 424, Boulder, CO 80309-0424, (303)492-3247, fax (303)492-4341, BOWMANC@COLORADO.EDU; Tim Long, Eastman Chemical, Research Laboratories, Bldg. 150 B, Kingsport, TN 37662, (423) 224-0214, fax (423) 229-4558, telong@eastman.com; Hans-Werner Schmidt, Univ. of Bayreuth, Macromolecular Chemistry Institute, Bayreuth, Germany, 011-49-921-553200, fax 011-49-921-553206, hans-werner.schmidt@uni-bayreuth.de.

Hydrogen Bonding for Macromolecular Self-Assembly
Anselm C. Griffith, Department of Chemistry / Box 5043, Univ. of Southern Mississippi, Hattiesburg, MS 33406, (601) 266-4701; fax (601) 266-4715; agriffin@ocean.st.usm.edu; Ron DeMartino, rdemart@bellatlantic.net.

Controlled Radical Polymerization
Krzysztof Matyjaszewski, Department of Chemistry, Carnegie-Mellon Univ., 4400 Fifth Ave., Pittsburgh, PA 15213, (412) 268-3209, fax (412) 268-6897, km3b+@andrew.cmu.edu.

Polymers in Display Applications
T. A. Tervoort, Institute for Polymers, ETH Zentrum, UNO C15, Universitaetstrasse 41, CH-8092 Zuerich, Switzerland, +41 1 632 6188, fax +41 1 632 1178, tervoort@ifp.mat.ethz.ch; C.W.M. Bastiaansen, Eindhoven Polymer Laboratories, Eindhoven U. of Technology, P.O. Box 513, 5600 MB Eindhoven, The Netherlands, +31 40 247 4915, fax +31 40 243 6999, tgtkkb@chem.tue.nl; C. Weder, Institute for Polymers, ETH Zentrum, UNO C 15, Universitaetstrasse 41, CH-8092 Zuerich, Switzerland, +41 1 632 3337, fax +41 1 632 1178, weder@ifp.mat.ethz.ch; http://mat.ethz.ch/d-werk/smith/events/display.html

Stimuli-Responsive Water-Soluble and Amphipathic Polymers
C. L. McCormick, Department of Polymer Science, U of Southern Mississippi, Hattiesburg, MS 33406, (601) 266-4872, fax (601) 266-5504, charles.mccormick@usm.edu, http://www.psrc.usm.edu/~mcweb/.

Uniever Award Symposium

Industrial Sponsors Program
Chemistry of Fullerenes and Related Carbon Nanostructures (MTLS)
Y.-P. Sun, Dept. of Chemistry, Clemson U, Clemson, SC 29634-1905, (864) 656-5026, fax (864) 656-6613, SYAPING@CLEMSON.EDU

Polymeric Materials in Separations (MACR)
S. Kelley, National Renewable Energy Lab, 1617 Cole Blvd., Golden, CO 80401, (303) 384-6123, fax (303) 384-6103, kelles@rcdlink.nrel.gov; B. Freeman, Dept. of Chemical Engineering, North Carolina State U., Box 7905, Raleigh, NC 27695, (919) 515-2460, fax (919) 515-3465, BENNY-FREEMAN@NCSU.EDU.

Polymeric Surfactants (PMSE)
R. K. Prudhomme, Dept. of Chemical Engineering, Princeton U, Princeton, NJ 08544-5263, (609) 258-4577, fax (609) 258-0211, prudhom@phoenix.princeton.e du

A Global Salute to Polymers (HIST)
For presentations by nominators of facilities included in the International Chemistry Celebration’s “Global Salute to Polymers, Ned D. Heindel, Dept. of Chemistry, Lehigh U., Seeley G. Mudd Bldg., 6 E. Packer Ave., Bethlehem, PA 18015-3172, (610) 758-3464, (610) 758-3461, ndh0@Lehigh.EDU (yes, there is one session at both the Anaheim and the New Orleans meetings)
Division of Polymer Chemistry

SUNDAY MORNING

Grafted Polymers: Synthesis and Characterization

Synthesis
D. Priddy, Organizer, Presiding
A. Karim, Organizer

8:10—Introductory Remarks
8:15—1. Role of grafting in morphology development in multi-phase systems. Mehmet Demirors
9:00—2. Grafting studies of HIPS materials before and after phase inversion. Jianbo Li, Jose M. Sosa
11:30—8. New graft copolymers prepared from dendritic macromonomers. Daniel M. Knauss, Hasan A. Al-Muallem

Controlled Radical Polymerization

Advances in Free Radical Polymerization
K. Matyjaszewski, Organizer, Presiding
Ezio Rizzardo, Presiding
9:00—9. Initiation and termination rates of free-radical polymerizations carried out within extended ranges of temperature and pressure. Michael Buback
10:00—11. Stereochemistry in Radical Polymerization of Vinyl Esters. Yoshio Okamoto, Tamaki Nakano, Kazunobu Yamada
10:30—12. EPR Study of Conventional and Controlled Radical Polymerization. Atsushi Kajiwara, Krzysztof Matyjaszewski, Mikiharu Kamachi

10:50—Intermission

11:00—13. Models for free-radical copolymerization kinetics. Tom P Davis, Michelle L Coote, Leo Radom

11:30—14. Topochemical polymerization of 1-naphthylmethylammonium muconate and sorbate as the (E,E)-diene monomers in the crystalline state. Akikazu Matsumoto, Toru Odani


Stimuli-Responsive, Water-Soluble, and Amphipathic Polymers
C.L. McCormick, Organizer
Andrew B. Lowe, Presiding

8:30—Introduction


9:00—17. Stimuli-responsive water soluble polymers and hydrogels: tailoring of the lower critical solution temperature, and efficient grafting on gold surfaces. Andrue Laschewsky, El Djouhar Rekai, Erik Wischerhoff


10:00—Intermission


10:40—21. Phase-behavior, rheology and erosion behavior of hydrogels of fluorocarbon end-capped PEG. Julie A. Kornfield, Giyoong Tae, Jeffrey A. Hubbell, Diethelm Johannsmann

11:00—22. Reversible gelation of aqueous polymer solutions induced by responsive stickers. Dominique Hourdet, Alain Durand, Mélanie Herve

11:20—23. Interpenetrating Polymer Networks with pH and Temperature Sensitivity. Jing Zhang, Nicholas A. Peppas

Polymer Characterization
R. B. Moore, Organizer
Houston Byrd, Presiding


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10:50—32. Controlled preparation of nanometer sized cylinder crystals of poly(ethylene oxide) embedded in methacrylate matrices. Uwe Beginn, Elmar Fischer, Thomas Pieper, Felix Mellinger, Rainer Kimmich, Martin Möller
11:10—33. Ultrahydrophobic polymer surfaces prepared by simultaneous ablation of polypropylene and sputtering of poly(tetrafluoroethylene) using radio frequency plasma. Jeffrey P. Youngblood, Thomas J. McCarthy
11:30—34. Synthesis and characterization of a remarkably stable polyimide. Fred Wudl, Daorong Chen

SUNDAY AFTERNOON

Section A
Block Copolymers: Designing Molecules for Applications
Synthesis
N. Hadjichristidis, Organizer
S. Gido, Organizer
J. Mays, Organizer, Presiding
L. J. Fetters, Presiding
1:30—Introductory Remarks: N. Hadjichristidis, M. Moeller
1:45—35. Structuring materials by block copolymers. L. Leibler
2:30—36. Block Copolymers By Living Cationic Polymerization; Comparison of Synthetic Approaches. Rudolf Faust
3:00—Intermission

Section B
Controlled Radical Polymerization
Basis of Controlled Radical Polymerization & Nitroxide Mediated Systems
K. Matyjaszewski, Organizer
Jean-Pierre Vairon, Presiding
Thomas P Davis, Presiding
2:00—42. Classification and comparison of various controlled/"living" radical polymerizations. Krzysztof Matyjaszewski
2:20—43. Kinetics of controlled radical polymerization. Takeshi Fukuda, Atsushi Goto
2:50—44. Characteristics of phosphonylated nitroxides and alkoxamines used in controlled/"living" radical polymerisation. Paul Tordo, Christophe LE MERCIER, Anouk GAUDEL, Didier SIRI, Sylvain MARQUE, Reiner MARTSCHKE, Hans FISCHER
3:20—45. A versatile route to functionalized block copolymers by nitroxide mediated ‘living’ free radical polymerization. Craig J. Hawker, Didier Benoit, Felix Rivera, Marcelo Piotti, Ian Rees, James L. Hedrick, Christina Zech, Gerhard Maier, Brigette Voit, Rebecca Braslau, Jean M.J. Fréchet
3:50—Intermission
4:00—46. Nitroxide-mediated controlled free-radical emulsion polymerization of styrene. Bernadette Charleux, Muriel Lansalot, Jean-Pierre Vairon, Rosangela Pirri, Paul Tordo
4:30—47. Controlled free-radical polymerization of styrene in the presence of an alkoxamine based on a beta-phosphonylated nitroxyl radical : comparison with bicomponent systems nitroxide/initiator. Jean-Francois Lutz, Patrick Lacroix-Desmazes, Bernard Boutevin
4:50—48. Triazolinyl radicals - an alternative radical with a new mechanism in controlled radical polymerization. Klaus Muellen, Marco Steenbock, Markus Klapper

Stimuli Responsive Water-Soluble and Amphipathic Polymers
C.L. McCormick, Organizer
Francoise M Winnik, Presiding
1:15—Introductory Remarks
1:20—50. Temperature and pH-responsive polymer/liposome complexes: design, characterization and applications. Francoise M Winnik
2:00—52. Macromolecular assemblies generated by inclusion complexes between amphipathic polymers and beta-cyclodextrin polymers in aqueous media. Catherine Amiel, E. Renard, A. Sandier, L. Moine, M. Gosselet, B. Sebille
2:40—Intermission
3:40—56. Phase Transition in Protein-based Hydrogels. **Jonghwi Lee**, Frederic Prochazka, Dan W. Urry, Christopher W. Macosko

**Polymer Synthesis**
R. B. Moore, **Organizer**
A. Guymon, **Presiding**
1:10—59. Functional derivatives of poly(4’-fluoro-2,5-diphenylsulfone) via nucleophilic aromatic substitution. **Paul D. Bloom**, Valerie V. Sheares
1:30—60. Second-generation phenacylsulfonium salts - a new class of cationic photoinitiators. **Shengqian Kong**, James V. Crivello
2:30—63. Perfluorinated thermosetting resins. **Atsushi Watakabe**, Jun-ichi Tayanagi, Atsuo Okawara, Yukio Jitsugiri
2:50—64. The polymerization of \(\AA\)-olefins with bulky pendant groups: 3-(1-adamantyl)-1-propene. **Albert J Van Reenen**, Liezel Coetzee, Lon J Mathias
3:10—65. Kinetics and mechanism of the bromination of butyl rubber. **Gabor Kaszas**
4:10—68. A Catalytically Self-threading Mainchain Polyrotaxane. Donus Tuncel, **Joachim HG Steinke**
4:30—69. Synthesis of Polyamide with Narrow Molecular Weight Distribution by Condensative Chain Polymerization. **Tsutomu Yokozawa**, Toshinobu Asai

**Polymeric Materials in Separations**
Cosponsored with MACR (see page XX)

**Chemistry of Fullerenes and Related Carbon Nanostructures**
Cosponsored with MTLS (see page XX)

**SUNDAY EVENING**
**Poster Session: Polymer Characterization**
R. B. Moore, **Organizer, Presiding**
5:30–7:30
70.— Thin film behavior of polystyrene-block-poly(methyl methacrylate) diblock copolymer at the air-water interface. **Yongsok Seo**, Hyuk Yu, Jaeho Kim, Sangwook Park

71.— A study of the crystallization behaviors of different polypropylenes. **Yongsok Seo**, Kwang Ung Kim, Jinho Kim

72.— Interactions between hydrophobically modified polyelectrolytes and mucin. **Lev E. Bromberg**

73.— Identifying toxic degradation products in cellulose acetate dialyzers. **Anne D. Lucas**, Judith A. Kalson, Joseph C. Hutter, Roland R. Wallis

74.— Evaluation of The Adamantyl Effect on Tg. **Havva Yagci Acar**, Lon J. Mathias, Jennifer Jensen, Kevin Thigpen, John McGowen, Demetrius McCormick, Louis Somlai

75.— An approach to processable PMR polyimides. **Christopher A. Gariepy**, R.K. Eby, Michael A. Meador

76.— Development of processable PMR-type polyimides with star-branched structures. **Baochau N. Nguyen**, Ronald K. Eby, Michael A. Meador

77.— Determination of poly(p-phenylene)benzoxazole number average molecular weight. **Ying-Hong So**, Ulrich W. Suter, Jay D. Romick

78.— Hydrogels as potential viscoelastic probes for studying accommodation: optional, swelling and mechanical properties of polyethyleneglycol (400) methacrylate hydrogels. **Krishnamurthy S. Murthy**, Nathan Ravi

79.— Study on property of electron transfer of a fluorescent polymer containing stable radicals on main chains. Nan Lu, **Ce Wang**, Hongwei Zhou, Dejun Wang, Tiejin Li

80.— Two-dimensional ordering array of SiO~2CE nano-particles. **Yahong Zhang**, **Ce Wang**, Yubai Bai, Zhihong Liu, Yen Wei

81.— Interfacial charge separation of a hetero-structured material based on monocarboxylized terthiophene on n-silicon wafer. **Changsheng Cao**, **Ce Wang**, **Yahong Zhang**, Tiejin Li, Yaan Cao

82.— Experimental Studies of Phase Transitions in Solutions of Random Heteropolymers. **Mark McCormick**, Jeffrey A Reimer


84.— Solid Polymer Electrolytes Prepared by UV-irradiation of Poly(ethylene oxide)/Epoxy Diacrylate/Lithium Perchlorate Blends. **Young-Wook Chang**, Dong-Woo Jung, Si-Tae Noh

85.— Dilute Solution Properties of Star-branched Polystyrene in the Good Solvent Benzene and Two Theta Solvents, Cyclohexane and Diethyl Malonate. **Steven R. Harville**, Jimmy W. Mays

86.— Electrorheology of semiconducting polynailine: polymerization temperature effect. **Hyoun J. Choi**, Jin H. Lee, Min S. Cho

87.— Rheological characterization of perfluoropolyether lubricant. **Hyoun J. Choi**, **Chul A. Kim**, Raymond-N. Kono, Myung S. Jhon

88.— Surface chemical composition analysis in polymer blends by UV reflection spectroscopy. **Sangmook Lee**, Chong Sook P. Sung

89.— Photoconductivity of substituted polyacetylenes and their doped composites. **Hong Z. Chen**, Jacky W.Y. Lam, Rui S. Xu, Mang Wang, Ben Z. Tang
90. — Extremely high and readily tunable optical activity in a poly(phenylacetylene) with small-size amino-acid pendant groups. **Kevin K.L. Cheuk**, Jacky W.Y. Lam, Qunhui Sun, John A. Cha, Ben Z. Tang

91. — Optically active poly(phenylacetylenes) containing monosaccharide side groups. **Ka L. Cheuk**, Jacky W.Y. Lam, Qunhui Sun, John A. Cha, Ben Z. Tang

92. — Optically-active hyperbranched poly(n-alkyltriferocenylsilanes): 2. thermal transition and optical activity. **Qunhui Sun**, Ben Z. Tang

93. — Ultrasound-induced isomerization of stereoregular poly(phenylacetylene). **Priscilla Pui-Sze Lee**, Jacky Wing-Yip Lam, Bensheng Li, Tommy Wa-Hung Poon, Ben Zhong Tang

94. — Thermal fractionation and characterization of silane-grafted water-crosslinked polyethylene. **Yeong-Tarng Shieh**, Jui-Shui Chen

95. — Automated Characterization of Polymer Solutions. Roland Strelitzki, Wayne F Reed

96. — Monitoring Absolute Molar Mass during Polymerization Reactions. Fabio H. Florenzano, Roland Stelitzki, Jean-Luc Brousseau, Wayne F. Reed

97. — Miscibility study of polymer blends by a novel phosphorescent quenching system. **Lin Qiao**, Andreas Langner

98. — Using FTIR to Determine the Extent of Reaction of Epoxies under Microwave Energy. James O. Stoffer, Dong Zhang, James V. Crivello


100. — In-Situ Characterization of Surface Molecular Orientation of Polymer Films by Fiber Optic UV Reflection Dichroism. **Michael D. Weir**, Chong Sook Paik Sung, Nak Ho Sung


102. — Properties and Biodegradation of Poly(ethylene adipate) and Poly(butylene succinate) Containing Styrene Glycol Units. Jin-San Yoon, **Hyoung-Joon Jin**, Mal-Nam Kim

103. — Heterogeneous Time Dependent Static Light Scattering. Ruth Schimanowski, Roland Strelitzki, David A. Mullin, Azida H. Sooklal, Wayne F. Reed

104. — Study on the capping reaction of living polyisobutylene with 2-phenylfuran using on-line UV-Vis spectroscopy. Younghwan Kwon, Savvas Hadjikyriacou, Rudolf Faust, Pascal Cabrit, Michel Moreau, Bernadette Charleux, Jean-Pierre Vairon

105. — Kinetic modeling of competitive crosslinking reactions for cycloaliphatic epoxides with hydroxyl- and carboxyl-functionalized acrylic copolymers (low pH and temperature effects). **Heather A. Nash**, Mark D. Soucek

106. — Dissolution of Polymer Powders. **Alan Parker**, Ricardo da Cunha Michel, Florence Vigouroux, Wayne F. Reed


110. — Shear-induced aggregation in starch solutions. **Sanghoon Kim**, J. L. Willett, Craig. J. Carriere
111.— Analysis of Regioregular Poly(3-alkylthiophenes) by MALDI MS. Jinsong Liu, Richard McCullough

112.— Dynamic Mechanical Properties and Non-isothermal Crystallization Behavior of sPP/iPP Blends. Wansoo Huh, Sang-Won Lee, Uk Hyun, Seok H. Hong

113.— Investigation into the Morphology of Polyurethane Elastomers with Mixed Chain Extenders. John V. McClusky, Monica A. Pocol, Hung-Jue Sue

114.— A comparison of charge-transfer and traditional MALDI matrices for the mass spectrometric analysis of polymers. Patrick A Limbach, Stephen F. Macha

115.— Role of High-Throughput Chromatography in Combinatorial Chemistry of Polymeric Materials. Miroslav Petro, Adam L. Safir, Ralph B. Nielsen


117.— New functional biodegradable polymers by ROP of purposely designed lactones. David Mecerreyes, James L. Hedrick, Michael Trollas, Victor Lee, Robert D. Miller, Cristophe Detrembleur, Olivier Halleux, Robert Jerome

118.— Oscillatory autocorrelation functions from absorbing solutions: A light scattering probe for aggregation of Polyaniline. Amit Sehgal, Thomas A. P. Seery

119.— Kinetic study of a surface initiated polymerization by real time infrared spectroscopy. Dale L. Huber, Thomas A. P. Seery

120.— DC conductivity studies of Nafion® carboxylate/sulfonate laminate membranes. Kenneth A. Mauritz, Alexander A. Lambert


123.— Mechanical properties of sol-gel derived Surlyn®/[silicon oxide] nanocomposites. Kenneth A. Mauritz, Paul R. Start


125.— Materials applications of carbon nanotubes: hydrogen storage and polymer composites. Sarah-Jane V. Frankland, Donald W. Brenner


127.— "Rigid and Flexible" Organosilyl Monolayers Covalently Attached to Silicon: Wettability Studies Indicating that Molecular Topography and Rotational Mobility of Grafted Groups Contribute to Contact Angle Hysteresis. Alexander Y. Fadeev, Thomas J. McCarthy

128.— Production of hydrogen gas in the heavy-ion radiolysis of high density polyethylene. Zheng Chang, Jay A. LaVerne
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130.— Optical Storage in Aniline Oligomers. **David Sotero Dos Santos**, Cleber Renato Mendonça, Debora T. Balogh, Leonardo De Boni, Sergio Carlos Zilio, Osvaldo Novais Oliveira

131.— Second Order Nonlinear Optical Polyurethane Networks Containing Azo Side Groups. **Huabin Wang**, Chuncai Yang, Xiabin Jing, Qunfu Wang, Tianlu Chen, Xiaozu Han, Fosong Wang

132.— Caffeine specificity of various non-imprinted polymers in aqueous media. **Frederick A. Villamena**, Armah A. de la Cruz

133.— Insolubilization of sodium chondroitin sulfate potentially for colon-specific drug delivery by interpenetrating network with polyacrylic acid. **Li-Fang Wang**

134.— Catalytically active Pd(0) nanocomposites based on a liquid crystal template. Douglas L Gin, **Julia H Ding**

135.— Structure and Dynamics of Filled Elastomers. **Koray Yurekli**, Ramanan Krishnamoorti, Mun Fu Tse, H.-C Wang


137.— Miscibility of Phosphine Oxide Containing Poly(imide) and Bisphenol A Poly(hydroxy ether). **Sheng Wang**, T. E. Glass, Hong Zhuang, M. Sankarapandian, Q. Ji, A. R. Shultz, J. E. McGrath

138.— The behavior of surfactant poly(p-phenylene ethynylene)s at the air-water interface. **Jinsang Kim**, Sean K. McHugh, D. Tyler McQuade, Timothy M. Swager

139.— Entrapment and separation of polymer molecules in crystalline host systems. **Nicolas J. Sunderland**, Harry R. Allcock

140.— Polystyrene/polypropylene polymer blend compatibilization without addition of premade block or graft copolymers or functionalization. Naomi Furgiuele, Klementina Khait, **John M. Torkelson**

141.— Deposition of polypyrrole thin films with enhanced adhesion. **Gyoujin Cho**, Jangkwan Jang, Il-Shik Moon, Jae-Suk Lee

142.— Effects of Temperature on Cure Kinetics and Mechanical Properties of Vinyl-Ester Resins. **Saeed Ziaee**, Giuseppe R. Palmese

143.— Photochemistry of aromatic polyesters: mechanism and intermediates. Charles E. Hoyle, **Michael D. Ziemer**, Bernard Rufus, Kalyanaraman Viswanathan, David Hill, David Hunter, Peter Pomery

144.— Thermal relaxation of oriented ionomer films: Correlation between mechanical behavior and anisotropic absorption of visible light of an incorporated dye. **Forrest A. Landis**, Robert B. Moore, Kigook Song, Sang-Jun Lee

145.— Ultraviolet Curable Coatings Using CAM. **Ramesh Subramanian**, Suguna H. Rachakonda, Oliver W. Smith, Shelby F. Thames

146.— Photo-assisted Grafting of Maleic Anhydride onto PP via Reactive Processing. **Bo Pan**, Robert B. Moore

147.— Interactions of polar functional groups in Nafion®/poly(propylene imine) dendrimer blends. **Eric P. Taylor**, Robert B. Moore
148.— Formation of cation-exchanged clay nanocomposites. **Grant D. Barber**, Robson F. Storey, Robert B. Moore


150.— PP/PA6 BlendsCompatibilized by Poly(oxypropylene)amide-functionalized PP. Jiang-Jen Lin, Mang-Yao Young, **Feng-Po Tseng**, Feng-Chih Chang

151.— Crystallization Behavior and Mechanical Properties of Low Density Polyethylene and Metallocene Linear Low Density Polyethylene Blend. **Sang-Won Lee**, Jang-Yup Kim, Uk Hyun, Wansoo Huh

152.— The Significance of Chain Length Dependent Termination on the Photopolymerization of Multifunctional (Meth)acrylates. **Jun Nie**, Lale G. Lovell, Christopher N. Bowman

153.— Functionality of Fibrinogen Bound to PDMS Biomaterial. Stephen J. Clarson, Gregory S. Retzinger, **Patrick W. Whitlock**

**Poster Session: Stimuli Responsive Water-Soluble and Amphipathic Polymers**

C.L. McCormick, **Organizer, Presiding**

5:30–7:30

154.— Studies on morphology and swelling kinetics of novel physical crosslinked chitosan hydrogels. **Xin Qu**, Anders Wirsån, Ann-Christine Albertsson


156.— Comparative studies of HEUR and di-n-alkyl ether associative thickeners. **Dharmista Mistry**, Tom Annable, Colin Booth


158.— Formation of block copolymer micelles and reverse micelles in aqueous solution. **Vural Burtun**, Steven P. Armes, Norman C. Billingham, Zdenek Tuzar

159.— Synthesis and aqueous solution properties of novel hydrophilic/hydrophilic block copolymers based on tertiary amine methacrylates and poly(ethylene oxide). **Lindsey Bailey**, Maria Vamvakaki, Norman C. Billingham, Steven P. Armes

160.— Conformational changes of polyelectrolytes depending on salt concentration. **Daewon Sohn**, **Jaeyoung Yang**

161.— Synthesis of amphiphilic photoresponsive dendrons. Dominic V. McGrath, **Sheng Li**, Shameema Sikder

162.— Synthesis and photophysical characterization of amphiphilic linear-dendritic block copolymers. **Chulhee Kim**, **Youngkyu Chang**, Young Chul Kwon, Sang Cheon Lee


164.— Reorganization of unilamellar phospholipid vesicles in aqueous media by the amphiphatic fluorescently modified apolipoporphin-III. **Paul A. Stroud**, Brian J. Cuevas, Gordon C. Cannon, Charles L. McCormick
165.— The synthesis and characterization of responsive zwitterionic cyclopolymer containing a novel carboxybetaine monomer. David B. Thomas, R. Scott Armentrout, Charles L. McCormick  
166.— Kinetic investigations of photo-initiated free-radical polymerization of diallyldimethylammonium chloride. Christopher L. Lester, C. Allan Guymon  
167.— pH-Responsive water-soluble polyelectrolytes incorporating poly(ethylene glycol) macromonomers. Garrett D. Poe, Charles L. McCormick  
168.— Characterization of turbulent induced polysaccharide xanthan gum. Hyoung J. Choi, Chul A. Kim, Jeong-In Sohn  
169.— Thermoreversible phase transitions of amphiphilic poly(2-ethyl-2-oxazoline)/poly(Ν-caprolactone) block copolymers in aqueous solutions. Chulhee Kim, Sang Cheon Lee, Suk Won Kang, Ick Chan Kwon  
170.— Synthesis and properties of water-soluble thermosensitive copolymers having phosphonium groups. Takamasa Nonaka, Kaku Makino, Seiji Kurihara  
171.— Fluorescence studies of novel hydrophobically modified polyacids. Linda Swanson, Nick J. Flint, Ian Soutar, Soo-Chang Yu  
172.— Time-resolved fluorescence studies of interactions of poly(N-isopropylacrylamide) with sodium dodecyl sulfate. Choong K. Chee, Stephen Rimmer, Ian Soutar, Linda Swanson  
174.— Synthesis of well-defined, stimuli-responsive, water-soluble polymers by the RAFT process. Michael S. Donovan, Andrew B. Lowe, Charles L. McCormick

Poster Session: Polymer Synthesis  
R. B. Moore, Organizer, Presiding  
5:30–7:30  
175.— Thin coatings derived from cubic octasilicate monomers. Chenghong Li, Garth L. Wilkes  
176.— Dynamics of Acrylic Coupling Agents at Interfaces of Composites. Hyoryoon Jo, Frank D. Blum  
177.— A novel, highly efficient transition metal-based system for the polymerization of norbornene and its derivatives. April D. Hennis, Jennifer D. Polley, Ayusman Sen  
178.— Synthesis and polymerizaton of new quaternary ammonium amphiphilic methacrylates. Duygu Avci, Lon. J. Mathias  
179.— Novel, protected functionalized initiators for anionic polymerizations. James A Schwindeman, Eric J. Granger  
180.— Transition metal catalyzed ethene homo- and copolymerization in the presence of exfoliated organophilic layered silicates and polyolefin nanocomposite formation. Rolf Muelhaupt, Johannes Heinemann, Peter Reichert, Ralf Thomann  
181.— Electroactive conjugated polymers containing furan. Carleton L. Gaupp, Barbara Tsuie, Jacek Brzezinski, John R. Reynolds  
182.— Alkyl Substituted Poly(thiylene vinylene) by Acyclic Diene Metathesis (ADMET) Polymerization Chemistry. Barbara Tsuie, Kenneth B. Wagener, John R. Reynolds  
183.— Electron rich alkylenedioxy derivatived polypyrroles: a new class of low oxidation potential conducting polymers. Kyukwan Zong, Philippe Schottland, Christopher A. Thomas, John R. Reynolds
184.—Poly(3,4-alkylenedioxypyrroles), aqueous switchable polymers with low formal redox potentials: stable materials for biological applications. **Christopher A Thomas**, Philippe Schottland, Kyukwan Zong, John R. Reynolds

185.—Poly(3,4-alkylenedioxythiophene) films: electrical and optical properties. **Irina Giurgiu**, John R. Reynolds, WonPil Lee, Keith R. Brenneman, Arthur J. Epstein, Dorothy John, Jungseok Hwang, David B. Tanner

186.—Symmetrically derivatized poly(3,4-propylenedioxythiophene). **Leroy J. Kloepffer**, Dean M. Welsh, John R. Reynolds

187.—Model compound study of sol-gel precursor interaction with free fatty acids. Mark D Soucek, **Chad R. Wold**, Hai Ni


190.—Synthesis of nitric oxide releasing silicone rubbers for biomedical applications. **Huiping Zhang**, Mark H. Schoenfisch, Mark E. Meyerhoff


193.—Hyperbranched Poly(acrylic acid) Grafts on Polyethylene; Substrates for Synthesis of Functionally Elaborate Surfaces. **Guoliang Tao**, Justine G. Franchina, David E. Bergbreiter

194.—Stereospecific anionic polymerization and novel hydrogen-transfer polymerization of \(\text{A-(aminomethyl)acrylates having unprotected amino group.} \)** Hideo Baraki, Shigeki Habaue, Yoshio Okamoto

195.—New Synthetic Approaches to Soluble Polyarylenevinylene Type of Fluorescent Polymers. **Zhe Wu**, Dekun Wang

196.—Preparation and Epoxy Curing of Novel Mannich Bases. Jiang-Jen Lin, **Shiau-Feng Lin**, Feng-Po Tseng, Feng-Chih Chang

197.—Synthesis and electrorheological characterization of polyaniline-Na+-montmorillonite clay suspensions. **Hyoung J. Choi**, Ji W. Kim, Seong G. Kim, Myung S. Jhon

198.—Chemical oxidation and electronchemical oxidation on phenyl-capped oligoanilines. Junbo Gao, Jian Jin, Wanjin Zhang, Ke Li, Youhai H. Yu, Ce Wang, Zhongwen Wu, **Zhanhai H. Wei**, Yiping P. Ji

199.—Synthesis of oligoanilines containing functional groups. Junbo Gao, Wanjin Zhang, Ke Li, Youhai H. Yu, Ce Wang, Zhongwen Wu, **Zhanhai H. Wei**, Yiping P. Ji

200.—Synthesis and optical limiting in the copolymers of C~60\(\text{C} \) and 1-phenyl-1-butyne. **Hongyao Xu**, Qunhui Sun, Ben Z. Tang

201.—Polymerizations of terminal and internal diynes. **Kaitian Xu**, Qunhui Sun, Priscilla P.S. Lee, Fouad Salhi, Ben Z. Tang

202.—Synthesis of polymer-supported reagents with enhanced accessibility and selectivity. **Stephanie Dawn Smith**, Spiro D. Alexandratos
203.— Synthesis and characterization of poly(biphenyl sulphone). Teng Ben, **Ruxiang Ruan**, Chunhai Chen, Hongwei Zhou, Jiahui Huang, Yubin Zheng, Zhenhua Jiang, Zhongwen Wu

204.— Design of specific fluorescence sensory polymers for the detection of TNT. Yi-Jun Miao, **Jinsang Kim**, Timothy M. Swager

205.— Synthesis and Derivatization of Novel Multifunctional Perfluoropolyethers. **W. Clayton Bunyard**, Joseph M. DeSimone

206.— Synthesis of Two-Stage Composite Latex Particles by Dispersion Polymerization in Carbon Dioxide. **Jennifer L. Young**, Richard J. Spontak, Joseph M. DeSimone

207.— A novel fluorenyltitanium(IV) complex as initiator for syndiotactic polystyrene and highly 1,4-cis polybutadiene polymerizations. **Sergei Ya. Knjazhanski**, Gregorio Cadenas, Guillermo Moreno, Maricela Zamora

208.— Polymerization of uniform macrocyclic carbonate initiated by neutral or weak basic salt. **Jun-ichi Sugiyama**, Ritsuko Nagahata, Meenakshi Goyal, Michihiko Asai, Mitsuru Ueda, Kazuhiro Takeuchi

209.— Syndiospecific polymerization of styrene with polymethylene-bridged dinuclear half-titanocenes. **Dong-ho Lee**, Seung-kun Park, Seok Kyun Noh

210.— Synthesis of copoly[1,5-(4,8-dimethylantraquinonylene) or 1,8-(4,5-dimethylantraquinonylene)/3,3,5,5-tetramethyl-4-oxa-3,5-disila-1,7-heptanylene] by Ru-catalyzed Murai reaction, combined with acid catalyzed siloxane equilibration polymerization. William P. Weber, **Shashi K. Gupta**, Cindy L. Kepler

211.— Synthesis of [n]-polyurethanes and hyperbranched polyurethanes. Egbert W. Meijer, **Ron M. Versteegen**, Rint P. Sijbesma

212.— Formation of trialkyl silyl monolayers on Si(100) using organosilanes in carbon dioxide. **Chuntao Cao**, Thomas J. McCarthy

213.— Transition metal phthalocyanine and porphyrin complexes as catalysts for the polymerization of olefins. **Gregory S. Long**, Benjamin Snedeker, Kyle Bartosh, Michelle L. Werner, Ayusman Sen

214.— Synthesis of Redox Gradient Porphyrin Dendrimers Containing Carbazole Groups. **Jacqueline A. Nikles**, David E. Nikles

215.— Preparation of Porphyrin Dendrimers with Ester Linkages. David E. Nikles, **Haizhong Tang**

216.— Amine-Quinone Polyimides. David E. Nikles, **Mijeong Han**

217.— Copolymers of (3-Methoxyethoxyethoxymethyl)thiophene and (3-Polyfluoroalkyl)thiophenes. **Richard L Pilston**, Richard D McCullough

218.— Using Grignard Metathesis to Synthesize Regioregular, Head-to-Tail Coupled Poly(3-substituted)thiophenes. **Robert S. Loewe**, Richard D. McCullough


220.— Regioregular, Head-to-Tail Coupled, Amine Functionalized Polythiophenes. **Paul C. Ewbank**, Guido Nuding, Hikaro Suenaga, Richard D. McCullough, Seiji Shinkai

221.— A rapid, orthogonal synthesis of poly(benzyl ester) dendrimers. Adam W. Freeman, Jean M. J. Frµechet

223.— Poly(methyl methacrylate) stereocomplexes by a single polymerization. **Douglas H. Adamson**, Manfred T. Reetz

224.— Bridged metallocenes as models in propylene homopolymerization and ethylene/propylene copolymerization studies. **Michaela Dankova**, Jennifer L. Maciejewski Petoff, Robert M. Waymouth

225.— Enhanced electron phase-transfer catalysis by a macrocyclic ionene oligomer, cyclobis(paraquat-p-phenylene). **Hiromichi Noguchi**, Haruhiko Tsutsumi, Makoto Komiyama

226.— Design and synthesis of poly (aryl ether sulphone)s containing biphenyl moieties. Teng Ben, **Ruxiang Ruan**, Zh. Yang, Ch. Chen, Y. Zheng, Zh. Wu

227.— A study of the mechanism of dispersion polymerization. **Junkyung Kim**, Jeongsoo Choi, Sungtaeg Kang, Sung Il Hong, Min Park, Chul Rim Choe

228.— The Synthesis of Poly(propylene-graft-styrene) from a ‘Living’ Free-Radical Macrorinitiator. **Peter A. Fox**, Robert M. Waymouth, Craig J. Hawker

229.— Perfluorocyclobutane-containing silorylene-siloxane polymers with pendant trifluoropropyl groups. **John Rizzo**, Frank Harris


231.— Synthesis of a biphenyl-containing, achiral, v-shaped liquid crystalline polyester. **Feng Bai**, Jason Ge, Stephen Z.D. Cheng, Frank W. Harris

232.— Synthesis and Characterization of Optically Active, Main-chain, Liquid Crystalline Polyesters. **Zhanhui Zhang**, Jason J. Ge, Feng Bai, Yuren Li, Lang-Chy Chien, Stephen Z. D. Cheng, Frank W. Harris


235.— Development of an Improved Synthetic Route to an A-B Quinoxaline Monomer. **Jong-Beom Baek**, Frank W. Harris

236.— Synthesis and characterization of polyanhydride copolymers for controlled drug delivery. **Amy Jo Sanders**, Bo Li, Christopher Bieniarz, Frank W. Harris

237.— Polypropylene surface modification by entrapment functionalization. **Brian Walchuk**, David E. Bergbreiter, H. Neil Gray, Brenda Holtzman

238.— Synthesis and characterization of block copolymer ionomer nanocomposites. **David Mountz**, David Reuschle, Robson Storey, Kenneth Mauritz


240.— Controlled cationic polymerization of p-alkoxystyrene and p-hydroxystyrene in aqueous media. **Kotaro Satoh**, Masami Kamigaito, Mitsuo Sawamoto

241.— Synthesis of Polymeric Networks by Atom Transfer Radical Polymerization. **Firouz Asgarzadeh**, Emmanuel Beyou, Philippe Chaumont

242.— Synthesis of Polymeric Networks by Reversible Addition Fragmentation Transfer Polymerization. **Firouz Asgarzadeh**, Emmanuel Beyou, Philippe Chaumont

243.— Stereoregulation in cationic polymerization by designed Lewis acids: formation of isotactic poly(vinyl ethers). **Makoto Ouchi**, Masami Kamigaito, Mitsuo Sawamoto
244.— Controlled Polymerization of Cyclohexene Oxide using Sterically. **Traian Sarbu**, Eric J. Beckman

245.— Development of nanoscale rods and fibers from polymerizable lyotropic liquid crystal templates. **Bradford A. Pindzola**, Benjamin P. Hoag, Douglas L. Gin


247.— Phosphazene Azides: A New Means for Polymer Cross-linking and Property Modification. **Thomas J. Hartle**, Michael B. McIntosh, Harry R. Allcock

248.— Phosphorylated phosphazenes as flame retardant polymers and polymer additives. **Jonathan P. Taylor**, Harry R. Allcock


251.— Design, synthesis and characterization of high-beta chromophores with fused-ring polyenes. **Galina Todorova**

252.— Fabrication of metal and metal oxide macromolecular networks within fluoropolymer free volumes. **Timothy S. Koloski**, Terrence G. Vargo

253.— Ring-Opening and Ring-Forming polymerization of 1,2:5,6:9,10-Triepoxydecane. **Ryuji Nonokawa**, Toshifumi Satoh, Kazuaki Yokota, Toyoji Kakuchi

254.— Cross-linking of Poly(Ç-decanyl-L-glutamate) by intermolecular olefin metathesis. **Drew S. Poche'**, Laried L. Malter, Jeannine M. Perrualt

255.— Synthesis of polynorbornene with aliphatic and aromatic side-chains. Alaa S. Abd-El-Aziz, **Andrea L. Edel**, Leslie J. May


257.— Polymerization of phenyllactide. Gregory L. Baker, **Tara L. Simmons**


259.— Fluorinated Oxetane Polyol Modified Segmented Polyurethane Elastomers. **Qing Ji**, J. Wang, S. Wang, H. Kang, T. E. Glass, J. E. McGrath

260.— Investigation of multifunctional maleimide/vinyl ether photopolymerization by computer simulation. Ras B. Pandey, **Danning Yang**, Yimin Liu, Charles E. Hoyle, Sonny Jönsson, Joe B. Whitehead

261.— Mechanistic investigation of the photopolymerization of maleimide/vinyl ether monomer mixtures. Charles E. Hoyle, **Danning Yang**, Kalyanaraman Viswanathan, Sonny Jonsson, Catharina Hasselgren

262.— The mechanistic role of sensitizers in the photopolymerization of acrylates initiated by maleimides. Charles E. Hoyle, **Chau K. Nguyen**, Kalyanaraman Viswanathan, Michael C. Cole, Chris W. Miller, Ah Tuan Johnson, Wilson Xia, David Hill, Liying Shao, Sonny Jonsson

263.— Synthesis of Narrow-polydispersity 3-star-polystyrene via nitroxide-mediated radical polymerization. **Nan-Loh Yang**, Deliang Zhou

Chirality induction in cyclopolymerization of nonconjugated asymmetrical diene having chiral template. Hiroshi Nakade, Takahiro Uesaka, Makoto Obata, Kazuaki Yokota, Toyoji Kakuchi


Synthesis of Poly[disilanyleneethynyleneoligo(thiylene)ethynylene]s and their photoconductivity. Masaya Kakimoto, Hideki Kashihara, Yoichi Yamaguchi, Toshihiko Takiguchi

Precipitation polymerization of divinylbenzene: An investigation of the particle formation mechanism. Jeffrey S. Downey, Randy S. Frank, Geoff McIsaac, Harald D. H. Stover

Synthesis of calcium-ion containing telechelic poly(1,1-lactide) ionomers. John W. Sherman, Robson F. Storey

Probing the effects of livingness of the carbocationic polymerization of isobutylene. Christopher L. Curry, Robson F. Storey

Rapid monomer consumption during initiation of living cationic polymerization of isobutylene. Robson F. Storey, Andrew B. Donnalley

Real-time isobutylene polymerization kinetics via ATR-FTIR spectroscopy: effect of temperature and medium polarity using BCl\textsuperscript{−}3\textsuperscript{+} coinitiator. Thomas L. Maggio, Robson F. Storey

Ring-opening Polymerization of Ethylene Carbonate and Depolymerization of Poly(ethylene oxide-co-ethylene carbonate). Jong-Chan Lee, Morton H. Litt

Grafted Polymers: Synthesis and Characterization

Characterization

D. Priddy, Organizer
A. Karim, Organizer, Presiding
8:10—Introductory Remarks
8:15—275. THE INFLUENCE OF POLYMER-POLYMER AND POLYMER-SURFACE INTERACTIONS ON THE FORMATION AND SWELLING OF END-GRAFTED POLYMER LAYERS. Jack F. Douglas

9:00—276. Shearing telechelic brushes. Jacob Klein, Erika Eiser, Thomas A. Witten, Lewis J. Fetters


10:15 — 279. Kinetic vs thermodynamic control of protein adsorption by grafted polymer layers. Igal Szleifer, Javier Satulovsky


11:05 — 281. Phase Separation in a Polymer/Particle Mixture: The Influence of a Grafted Layer on the Surface of the Particles. Anna C Balazs

11:30 — 282. Dynamics of interacting spherical polymer brushes. Dimitris Vlassopoulos, Michael Kapnistos, George Fytas, Jacques Roovers

Section B

Controlled Radical Polymerization
Atom Transfer Radical Polymerization
K. Matyjaszewski, Organizer
Takeshi Fukuda, Presiding
Timothy E. Patten, Presiding

8:30 — 283. Transition metal-catalyzed living radical polymerization: recent progress. Masami Kamigaito, Mitsuo Sawamoto

9:00 — 284. Phenolic based initiators for atom transfer polymerisation. David M Haddleton, Peter J Derrick, Carl Waterson, Michael D Eason

9:30 — 285. Recent Advances in Atom Transfer Radical Copolymerization. Bert Klumperman, Gregory Chambard

9:50 — 286. Controlled Radical Polymerizations Mediated by One-Electron Atom-Transfer Chemistry of Transition-Metal Complexes: Electrochemistry and Combinatorial Approaches. Bruce M. Novak, Christopher Goh, Young-je Kwark

10:20 — Intermission

10:30 — 287. Atom transfer radical polymerization (ATRP) of n-butyl-acrylate: synthesis and characterization of linear and star type homopolymers. Andreas Muehlebach, Francois Rime, Ute Pfeiffer


11:40 — 290. Polychloroalkanes as ATRP initiators. Application to the synthesis of block copolymers from the combination of conventional radical polymerization and ATRP. Mathias Destarac, Bernard Boutevin, Krzysztof Matyjaszewski

12:00 — 291. Supramolecular Initiators for Controlled Polymerization of Styrene. Ulrich S. Schubert, Georg Hochwimmer

Section C

Stimuli Responsive Water-Soluble and Amphipathic Polymers
C.L. McCormick, Organizer
Yotaro Morishima, Presiding

8:30 — Introductory Remarks
8:40—292. Stimuli-responsive amphiphilic copolymers of sodium 2-(acrylamido)-2-methylpropanesulfonate and associative macromonomers. Tetsuya Noda, Akihito Hashidzume, Yotaro Morishima

9:00—293. Photoresponsive hydrophobically-modified polyelectrolytes containing cinnamic chromophores. Krzysztof Szczubialka, Hironobu Hashimoto, Yotaro Morishima


9:40—295. Photoresponsive thickening of aqueous solutions. Iolanda Porcar, Bertrand Cesar, Christophe Tribet

10:00—Intermission


10:40—297. Luminescence studies of thermoresponsive nanoparticles. Ian Soutar, Nick J. Flint, Stacey Gardebrecht, Linda Swanson

11:00—298. Manipulating the thermoresponsive behavior of NIPAM-based polymers. Linda Swanson, Choong K. Chee, Stephen Rimmer, Ian Soutar


Hydrogen Bonding for Macromolecular Self-Assembly
A. C. Griffin, Organizer, Presiding
R. N. DeMartino, Organizer


9:30—302. Miscible polymer blends through hydrogen bonding: design and control of polymer properties. Eli M. Pearce, T.K. Kwei

10:00—303. Construction of thermotropic and amphotropic liquid crystals by hydrogen bondings. Horst Kresse

10:30—304. Polyesteramides based on PET and nylon 2,T. Krista Bouma, Reinoud J. Gaymans

11:00—305. Hydrogen bond template-directed polymerisation of protected 5'-acryloylnucleosides. Andrew Marsh, David M. Haddleton, Michael J. Hannon, Afzal Khan, Dax Kukulj

11:30—306. Non-covalent Complexes from various acidic Heterocycles and trifunctional Amidine Bases. Anja Reichert, Kraft Arno

Chemistry of Fullerenes and Related Carbon Nanostructures
Cosponsored with MTLS (see page XX)

Teaching Polymers at All Levels: Kindergarten to Graduate School
Cosponsored with CHED (see page XX)
Polymeric Materials in Separations
Cosponsored with MACR (see page XX)
MONDAY AFTERNOON

Section A

Block Copolymers: Designing Molecules for Applications
Applications
N. Hadjichristidis, Organizer
J. Mays, Organizer
S. Gido, Organizer
Christopher K. Ober, Presiding
Volker Abetz, Presiding
1:30 — 307. An amorphous-crystalline Block Polymer as a Fuel Oil Additive. Lewis John Fetters
2:00 — 308. Self assembly of block copolymer based photonic materials. Edwin L. Thomas
3:00 — Intermission
3:45 — 311. Templating nanoporosity in organosilicates with well-defined branched macromolecules and block copolymers. James Hedrick, Mikael Trollsaas, Cattien Nguyen, Jules Remenar, Craig Hawker, Ken Carter, Willi Volksen, Do Yoon, Robert Miller

Section B

Controlled Radical Polymerization
Degenerative Transfer and New Materials by CRP
K. Matyjaszewski, Organizer
David M Haddleton, Presiding
Philippe Chaumont, Presiding
2:00 — 316. Synthesis of defined polymers by reversible addition-fragmentation chain transfer (the RAFT process). Ezio Rizzardo, John Chieffari, Roshan T.A. Mayadunne, Graeme Moad, San H. Thang
2:50—318. Endgroup control in catalytic chain transfer polymerization. Johan PA Heuts, David M Morrisson, Thomas P Davis
3:10—Intermission
3:20—319. STARS AND STAR-BLOCK COPOLYMERS OF PRECISE FUNCTIONALITY BY ATOM TRANSFER RADICAL POLYMERIZATION. Yves Gnanou, Stephanie Angot, Daniel Taton, Guerkan Hizal, Shanmugananda Murthy
3:50—320. Controlled/"Living" radical polymerization: The next frontier in polymer science? Krzysztof Matyjaszewski, Scott G Gaynor
4:40—322. The Preparation of Polymer-Inorganic Hybrid Nanoparticles using Controlled/Living Radical Polymerization. Timothy E. Patten, Timothy von Werne
5:10—323. Chain end functionalization of polystyrene obtained by quasiliving atom transfer radical polymerization. Bela Ivan, Tamas Fonagy
5:30—324. "Living"/Controlled radical polymerization initiated by redox system. Deyue Yan, Wenxin Wang
5:50—325. Radical Copolymerization of N-Substituted Maleimides with Styrene Using Atom Transfer Radical Polymerization. Guang-Qiang Chen, Zhi-Qiang Wu, Jian-Ru Wu, Zicheng Li, Fu-Mian Li

Stimuli Responsive Water-Soluble and Amphipathic Polymers
C.L. McCormick, Organizer
S. P. Armes, Presiding
1:15—Introductory Remarks
1:20—326. Synthesis of novel shell cross-linked micelles with hydrophilic cores. Steven P. Armes
1:40—327. pH Responsive Morphological Changes of Block Copolymer Aggregates. Hongwei Shen, Lifeng Zhang, Adi Eisenberg
2:00—328. Cationic copolymer micelles and anionic polyelectrolytes forming onion-type micelles. Maria Ruela Y. Talingting, Petr Munk, Stephen E. Webber
3:00—Intermission
3:20—331. Thermally sequesteration of trace metals from aqueous solutions of poly(N-isopropylacrylamide)copolymers. Jonathon D. Frels, David E. Bergbreiter, Nirmal Koshti
3:40—332. Amphiphilic copolymers by atom transfer polymerization with carbohydrate-based initiators and monomers. David M Haddleton, Stefan A. F. Bon
4:00—333. Controlled Polymerization of Acrylamides. D. Li, J. T. Rademacher, C. M. Rademacher, M. Baum, D. Malaba, M. Pallack, W. J. Brittain

Hydrogen-Bonding for Macromolecular Self-Assembly

Section C

Section D
A. C. Griffin, Organizer
R. N. DeMartino, Organizer, Presiding
1:30 — 335. Liquid crystals from hydrogen-bonded systems. Duncan W. Bruce, Kimbery Willis, Goran Ungar
2:00 — 336. Supramolecular association of acid terminated polydimethylsiloxane in non polar solvents. Laurent Bouteiller, Stephane Abed, Sylvie Boileau
4:00 — 340. Mesomorphic properties of side chain type polymers having hydrogen bonding group. N. Koide, T. Mihara
4:30 — 341. Influence of competitive hydrogen bonding between hard and soft segments on the properties of siloxane and polyether based segmented copolymers. Iskender Yilgor, Engin Burgaz, Burak Metin, Ersin Yurtsever, Emel Yilgor

Teaching Polymers at All Levels: Kindergarten to Graduate School
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Chemistry of Fullerenes and Related Carbon Nanostructures
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TUESDAY MORNING

Section A

Grafted Polymers: Synthesis and Characterization

Synthesis
D. Priddy, Organizer, Presiding
A. Karim, Organizer
8:00 — Introductory Remarks
8:30 — 343. ABC/BCD POLYMERIZATION: A SELF-CONDENSING VINYL AND CYCLIC ESTER POLYMERIZATION BY COMBINATION FREE RADICAL AND RING OPENING TECHNIQUES FOR THE PREPARATION OF NOVEL GRAFT COPOLYMERS. James Hedrick, Mikael Trollasas, David Mecerreyes
8:55 — 344. [METH)ACRYLATE-BASED GRAFT COPOLYMERS VIA CYANOXYL-MEDIATED FREE-RADICAL POLYMERIZATION. Yves GNANOU, Ramiro GUERRERO, Daniel GRANDE
9:20 — 345. Manipulation of surface properties using novel grafted copolymer brushes and surface initiated polymerization. Craig Hawker, James L. Hedrick, Didier Benoît, David
Mecerreyes, Ian Rees, Marc Husemann, Thomas P. Russell, Elbert E. Huang, Rahul R. Shah, Nicholas L. Abbott

9:45—346. Grafting of Vinyl Polymers to Cellulose Derivatives Utilizing Barton Ester Intermediates and Nitroxide Mediation. William H. Daly, Timothy S. Evenson

10:10—347. Synthesis of model graft copolymers with regularly spaced trifunctional or tetrafunctional branch points. Kunlun Hong, David Uhrig, Herims IATROU, Yiannis Poulos, Nikos Hadjichristidis, Jimmy W. Mays


11:00—349. Miscibility of SCLCPs with Different Architectures. Coleen Pugh, Chun Chang, Andrea. A. Kasko


Section B

Controlled Radical Polymerization

New Materials by CRP

K. Matyjaszewski, Organizer
Yves Gnanou, Presiding
Craig J. Hawker, Presiding

8:20—351. Controlled Radical Polymerization of Styrene and Acrylonitrile. Susanne J. Brinkmann-Rengel, Jizhuang Cao, Norbert Niessner

8:40—352. Kinetic gelation modeling of polymer networks formed by a living radical polymerization. Jennifer H. Ward, Nicholas A. Peppas

9:00—353. Synthesis and properties of polymer networks prepared by "living" free radical polymerization and end-linking processes. Philippe Chaumont, Firouz Asgarzadeh, Pascal Ourdouillie, Emmanuel Beyou, Francoise Muechin, Michel Dumon


10:40—Intermission


11:30—359. Potential impact of controlled radical polymerization on markets for polymeric materials. James Spanswick, Elizabeth A. Branstetter, William F. Huber

Section C

Polymers in Display Applications

T. A. Tervoort, Organizer
1999 Fall meeting

C.W.M. Bastiaansen, Organizer
C. Weder, Organizer
Kenneth J. Wynne, Presiding
Martin Schadt, Presiding

8:30 — 360. A Perspective on Polymers in Display Applications. Kenneth J. Wynne

9:10 — 361. New functional polymers for liquid crystal displays - review of some recent developments. Dirk J. Broer, Jos A.M.M. van Haaren, Peter van de Witte, Cees W.M. Bastiaansen

9:50 — 362. Photo-alignment of monomeric and polymeric liquid crystals and devices. Martin Schadt

10:15 — Intermission

10:35 — 363. Electrically switchable mirrors and optical components made from liquid-crystal gels. R.A.M. Hikmet

11:00 — 364. Liquid-crystalline physical gels. Electro-optic properties and phase behavior. Takashi Kato, Norihiro Mizoshita, Takaaki Kutsuna, Gohta Kondo, Kenji Hanabusa


Section D

Polymer Characterization
R. B. Moore, Organizer


8:50 — 368. New substrates for polymer cationization by time of flight secondary ion mass spectrometry. Roger Michel, Reto Luginbuehl, Dan Graham, Buddy D. Ratner

9:10 — 369. Antibacterial activity of pyridinium-grafted polypropylene nonwoven cloths. Guangji Li, Shaozao Tan, Jiarui Shen


10:30 — 373. Comparative study of the photo-oxidation of linear low density polyethylene under natural and accelerated weathering conditions. Adams Tidjani


11:30 — 376. Linear and Hyperbranched Flyorescent Polyphenylquinoxalines by means of AA-BB and AB2 Monomers. Jong-Beom Baek, L.-C. Chien

Polymeric Materials in Separations
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A Global Salute to Polymers
Cosponsored with HIST (see page XX)

TUESDAY AFTERNOON

Section A

Block Copolymers: Designing Molecules for Applications

Morphology
N. Hadjichristidis, Organizer
J. Mays, Organizer
S. Gido, Organizer
Edwin L. Thomas, Presiding
Martin Møeeller, Presiding


2:00 — 379. Designing polymeric bicontinuous microemulsion. Mark W. Matsen, Russell B. Thompson

2:30 — 380. Self-assemblies in block copolymer blends. Volker Abetz, Thorsten Goldacker, Reimund Stadler

3:00 — Intermission

3:15 — 381. The Synthesis and Use of MultiBlock Copolymers as Interfacial Modifiers. Mark D. Dadmun

3:45 — 382. Controlling the morphology of block copolymers via plasticizer selectivity. Timothy P. Lodge, Bryant J. Pudil, Vindya Alahapperuma, Kenneth J. Hanley


4:25 — 384. Block Copolymer Amphiphiles of Different Architectures Investigated using the Quartz Crystal Microbalance (QCM) Technique: In-situ Investigation of Adsorption
1999 Fall meeting

Properties. **Rigoberto C. Advincula**, Mi-Kyoung Park, Akira Baba, Futao Kaneko, Jinchuan Yang, Jimmy Mays


**Unilever Award for Outstanding Graduate Research in Polymer Science**

Honoring **Scott Gaynor**

K. Matyjaszewski, Organizer
Warren T. Ford, Presiding

1:30—386. Supramolecular Chemistry Applied to Micro- and Macro-molecular Building Blocks. **Harry W. Gibson**

2:00—387. Effects of structural details of macromolecules on properties of bulk materials. **Tadeusz Pakula**, Institute of Polymers

2:30—388. Self-Assembly in Supercritical Fluids: from Dispersion Polymerizations to Polymeric Micelles for Separations. **Joseph M. DeSimone**


3:30—390. Importance of understanding the mechanism of ATRP for the synthesis of well defined (co)polymers. Krzysztof Matyjaszewski

4:00—Award Presentation: K. P. Ananth

4:05—391. Award Address: Novel Materials by Atom Transfer Radical Polymerization. **Scott G. Gaynor**, Krzysztof Matyjaszewski

**Polymers in Display Applications**

C. Weder, Organizer

T. A. Tervoort, Organizer, Presiding
C.W.M. Bastiaansen, Organizer, Presiding

1:45—392. Molecular and spectroscopic properties of a polarizer based on a block copolymer of vinylalcohol and acetylene. **John J. Cael**, Giorgio Trapani

2:10—393. Polymer Films Derived from Aligned and Polymerised Reactive Liquid Crystals. **David Coates**, Owain Parri, Mark Verrall

2:35—394. Highly scattering optical transmission polymers for bright display. Akihiro Tagaya, **Yasuhiro Koike**


3:25—Intermission

3:45—396. Liquid Crystal Polymer Optics. **Stephen J. Picken**

4:10—397. Phase behavior and anisotropic optical properties in photoluminescent polarizers. **Andrea Montali**, Anja R.A. Palmans, Michael Eglin, Christoph Weder, Paul Smith, Werner Trabesinger, Alois Renn, Bert Hecht, Urs P. Wild


**Industrial Sponsors Symposium - Does the Future of Polymer Research and Development Depend on Entrepreneurs?**
M. Jaffe, Organizer
J. Salamone, Presiding
2:00—Introductory Remarks
2:10—A. B. Salamone, Enterprise Development Corporation
2:30—Michael Schen, NIST
2:50—Bernard Gordon III, Polymer Chemistry Innovations Inc.
3:10—Edward Kresge, Exxon Chemical (ret.)
3:30—Joseph M. DeSimone, UNC-CH/NCSU and Micell Technologies Inc.
3:50—Isy Goldwasser, Symyx Inc.
4:10—Panel Discussion

Chemistry of Fullerenes and Related Carbon Nanostructures
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TUESDAY EVENING
Poster Session: Block Copolymers: Designing Molecules for Applications
N. Hadjichristidis, Organizer
J. Mays, Organizer
S. Gido, Organizer, Presiding
5:30–7:30
399.— Toward the synthesis of Poly(Ä-Methylstyrene-b-Isobutylene) copolymers via living cationic sequential block copolymerization. Younghwan Kwon, Xianyi Cao, Rudolf Faust
400.— Supercritical fluid fractionation of polyisobutylene-polystyrene block copolymers. Judit E. Puskas, Paula M. Wetmore, Val Krukonis
401.— Synthesis of Poly(styrene-b-isobutylene) Copolymers by Living Cationic Sequential Block Copolymerization. Rudolf Faust, Xianyi Cao
402.— Synthesis and Characterization of Amphiphilic Poly(isobutylene-star-isobutylene-star-methyl vinyl ether) Three-Arm Star-Block Copolymers. Jongpil Yun, Savvas Hadjikyriacou, Rudolf Faust
403.— A MALDI/TOF/MS Study of Homopolymers and Amphipilic Diblock Copolymers Based on Sulfonated Polystyrene. Jinchuan Yang, William K. Nonidez, Jimmy W. Mays
404.— The synthesis of A-B block copolymers by copper mediated atom transfer polymerisation utilising an end group modified poly(ethylene/butylene) macroinitiator. Carl Waterson, David M. Haddleton
405.— Synthesis and Characterization of a Self-Assembling Polypeptide Block Copolymer. Vincent P. Conticello, Yun Qu
406.— Synthesis of block copolymers by emulsion "living/controlled" radical polymerization of vinyl monomers in sequence. X.L Wan, S.K. Ying
408.— Synthesis of block copolymers via transformation of living free radical polymerization into living cationic ring-opening polymerization. Y.F. Liu, S.K. Ying, X.L. Wan
409.— The controlled radical polymerization of styrene under the ppm level of concentration of Cu(II) and rare earth metal heterobinuclear complexes. Ning Luo, Xiaosong Wang, Shengkang Ying, Yihao Shun, Xiuedong Zhu
410.— Design and synthesis of block copolymers of isocyanate and styrene by anionic polymerization. Jae-Suk Lee, Seok Han, Yeong-Deuk Shin, Sun-Young Kim
411.— Synthesis and Characterization of Model AB Cyclic Copolymers. Hermis Iatrou, Nikos Hadjichristidis
413.— Segmented polyethylene-polyisobutylene copolymers via ADMET chemistry. Debra Tindall, Kenneth B. Wagener, Krystyna R. Brzezinska
414.— Synthesis and characterization of poly(1,3-cyclohexadiene)-polystyrene block copolymers. Kunlun Hong, Jimmy W. Mays, Walter A. Cristofoli
415.— Synthesis of polysiloxane-polybutadiene copolymers. Leanne G. Britcher, Rosalind P. Ma, Jani G. Matisons
416.— Amphiphilic Block Copolymers containing Supramolecular Segments. Ulrich S. Schubert, Georg Hochwimmer
417.— Designed Functionalized Block Copolymers with Metal Complexing Terpyridine Units. Ulrich S. Schubert, Christian Eschbaumer
418.— Novel synthesis of amphiphilic rod-coil diblock copolymers via an orthogonal approach. Hengbin Wang, Luping Yu
419.— Fluorescence labeled polymers to monitor polymer-polymer coupling reactions. Bongjin Moon, Thomas R. Hoye, Christopher W. Macosko
420.— Synthesis of polymethylene block copolymers by the polyhomologation of organoboranes. Kenneth J. Shea, Chad L. Staiger, Sun Y. Lee
421.— Synthesis of functional triblock copolymers using stable free radical polymerization (SFRP). S. Kanagasabapathy, Brian C. Benicewicz
422.— Synthesis of well-defined triblock copolymer by reversible addition fragmentation chain transfer (RAFT) polymerization in emulsion. S. Kanagasabapathy, J. Claverie, I. Uzulina
424.— Subphase Adsorption of Polyelectrolytes to Block Copolymer Amphiphiles at the Air-water Interface: In-situ Investigations using the Quartz Crystal Microbalance (QCM) Technique and the Langmuir-Blodgett Trough. Rigoberto C. Advincula, Mi-Kyoung Park, Jinchuan Yang, Jimmy Mays
425.— Morphologies of asymmetric ABC miktoarm star terpolymers. Hanno Hueckstaedt, Volker Abetz, Reimund Stadler
427.— Surface modification with polystyrene-block-poly(2-vinylpyridine) acid micelles and poly(styrenesulfonate). Maria Ruela Y. Talingting, Yanhui Ma, Chris Simmons, Stephen E. Webber
428.— Use of block copolymers to control the morphologies and properties of thermoset / thermoplastic blends. J-P. Pascault, E. Girard-Reydet
429.— Structure development during copolyurethane formation. Anthony J Ryan, Wu Li, Ellen Heele
430.— Melt spinnable elastic fibers from segmented copolyetheresteraramides. Meike C.E.J. Niesten, Josien Krijgsman, Reinoud J. Gaymans
431.— Hydrogenated polystyrene-polybutadiene block copolymers as polyolefin rheology modifiers. Todd D. Jones, Frank S. Bates, Christopher W. Macosko
432.— Polystyrene-block-poly(2-cinnamoyl ethyl methacrylate) nanofibers. Guojun Liu, Jianfu Ding, James T. Gleeson, T. Hashimoto
433.— Phase separation of fluorocarbon/hydrocarbon mixtures in the presence of semifluorinated copolymers. Pierandrea Lo Nostro, Camillo Cardelli, Sow-Hsin Chen

Poster Session: Grafted Polymers: Synthesis and Characterization
D. Priddy, Organizer, Presiding
A. Karim, Organizer, Presiding
5:30–7:30
434.— Morphology of model multigraft copolymers with randomly placed trifunctional and tetrafunctional branch points. Maria Xenidou, Frederick L. Beyer, Nikos Hadjichristidis, Samuel, P. Gido, Nora Beck Tan
435.— Microthermomechanical Properties of Ultrathin Polymer Films and Brushes. Zheng Huang, Igor Luzinov, Daungrut Julthongpiput, Vladimir Tsukruk
436.— Ultrathin, hyperbranched polymer membranes on porous alumina. Merlin L. Bruening, Milind P. Nagale, Bo Young Kim
437.— Liquid chromatographic separation and characterization of polystyrene-graft-polyethyleneoxide copolymers prepared by dispersion copolymerization. Dusan Berek, Son H. Nguyen, Ignac Capek, Oscar Chiantore
438.— End-grafted polysilanes on substrate surfaces: Surface-tethered ó-conjugated polymer chains. Keisuke Ebata, Kazuaki Furukawa, Nobuo Matsumoto, Michiya Fujiki
439.— Synthesis of tethered diblock copolymer films by sequential carbocationic polymerization and atom transfer radical polymerization. Bin Zhao, William J. Brittain
440.— DENSE POLYMERIC BRUSHES AND GRAFT COPOLYMERS BY ROMP. Yves Gnanou, Valerie Huerguez, Jean-Luc Six, Daniel Grande, Michel Fontanille
441.— Sm(III) mediated graft polymerization of lactones and lactides on poly(p-xylylene)s. Andreas Greiner, Natalia Brandukova-Szmikowski, Seema Agarwal
442.— Synthesis of poly(2-vinylpyridine) and poly(çterté-buty1 methacrylate) arborescent copolymers: branched polyelectrolyte precursors. R. Andrew Kee, Mario Gauthier
443.— Branching in Methyl Methacrylate Polymerisations Incorporating a Polymeric Chain Transfer Agent. John V. Dawkins, Jon H. Houseman, Andrew T. Slark
444.— Toward Supramolecular Structured Hydrogels and Transient Networks. Sadayasu Tanikawa, Jeffrey S. Moore
445.— Characterization of high molecular weight water soluble dendrigrafts. Dujie Qin, Rui Yin, Jing Li, Donald A. Tomalia, Dupont Durst, Gary Hugnauer
1999 Fall meeting

446.— Synthesis of degradable ring-opening copolymers. Daniel Colombani, Michel Arot’carena, Philippe Chaumont, Firouz Asgarzadeh
447.— The use of hydrophobic-hydrophilic graft copolymers in the preparation of novel soft contact lens materials. Lisa M Muratore, Karen Steinhoff, Thomas P Davis
448.— Copolymerization of ethylene and functional olefins by metallocene catalyst system. George J. Jiang, Jyh Ming Hwu
450.— Functionalization of Poly(acrylic acid) with Cyclic Imino Ethers for Biomaterials and Coatings Applications. S.R. Schricker, B.M. Culbertson, Y. Tong
451.— Modification of poly(ethylene glycol)-tethered poly(propylene-co-fumarate) with RGD peptide. Seongbong Jo, Antonios G. Mikos
452.— Telechelically functionalized arms for synthesis of branched polymers by catalytic chain transfer. Alexei A. Grdinev, Steven D. Ittel

Poster Session: Optical Polymers: Advances in Optical Fibers and Waveguides
J. Harmon, Organizer, Presiding
G. K. Noren, Organizer, Presiding
5:30–7:30
453.— Development of a novel NLO chromophore for polycarbonate synthesis. Erica H. Martin, William J. Brittain
454.— Controlled Refractive Index Optical Coating Materials. Paul D. Schuman
455.— Polycyanurate-based waveguides with low loss and high thermal stability. Joerg Bauer, Christian Dreyer, Monika Bauer, Crispin Zawadzki, Sucru Yilmaz, Werner Wirges, Huihai Yao, Norbert Keil
456.— Novel Photorefractive Polymers Sensitized by Metalloporphyrin. Qing Wang, Liming Wang, Luping Yu
457.— An optical waveguide actinometer based on a dual cladding configuration. Andrea E. Hoyt, Larry A. Harrah, Nicole C. Coons, Teresa M. Powers

Poster Session: Hydrogen-Bonding for Macromolecular Self-Assembly
A. C. Griffin, Organizer, Presiding
R. N. DeMartino, Organizer, Presiding
5:30–7:30
458.— Intralayer hydrogen-bond directed nano-fiber formation from dicarboxylic valylvaline bolaamphiphiles. Masaki Kogiso, Takeshi Hanada, Kiyoshi Yase, Toshimi Shimizu
459.— Supramolecular Daisy Chains. J. Fraser Stoddart, Stuart J. Cantrill, David J. Williams
460.— Hetero-association in solution of telechelic polydimethylsiloxane bearing hydrogen bond donors with small acceptor molecules. Laurent Bouteiller, Stephane Abed, Sylvie Boileau
461.— Self-assembled polymers with columnar architecture. E.W. Meijer, J.H.K. Ky Hirschberg, Rint P. Sijbesma
462.— Supramolecular networks with linear and non-linear associative chain structures. Kurt N. Wiegel, Anselm C. Griffin
Formation of supramolecular assemblies by complementary association of octadecyloxy tartaric acid and bispyridyls. Alok Singh, Syed B. Qadri, Yuri Lvov, Jean-Marie Lehn

Superbasic aliphatic polyamidines as perspective polymeric carriers for NLO-active chromophores. Frank Boehme, Liane Haussler, Andrey V. Tenkovtsev, Alexander V. Yakimansky

Stoichiometric complexes made of naturally occurring poly(Ç,D-glutamic acid) and cationic surfactants. Graciela Pérez-Camero, Antxon Martínez de Ilarduya, Montserrat García-Alvarez, Sebastian Muñoz-Guerra

Hierarchical self-assembly of double-helical ropes from nucleobase-appended bolaamphiphilic monomers. Toshimi Shimizu, Rika Iwaura, Mitsutoshi Masuda

Hydrogen bonds as the force field of Topological Mechanics and Directed Organization of functional structure of proteins. Okan Gurel, Demet Gurel

**Poster Session: Polymers and Liquid Crystals**

C. Bowman, Organizer, Presiding
T. Long, Organizer
H-W. Schmidt, Organizer

5:30–7:30

Kinetics study on catalyst effect by thin film polymerization of liquid crystalline copolymer. Si-Xue Cheng, Tai-Shung Chung

Triphenylene and pentayne based disc-rod triple mesogens with intramolecular acceptor functions. Dietmar Janietz, Sven Mahlstedt, Andreas Stracke, Joachim H. Wendorff

Laterally Attached SCLCPs Designed to Exhibit Smectic C Mesophases. Coleen Pugh, Pukun Zhu

Polynorbornenes with Laterally Attached 2,5-Bis[(4_-n-alkylthiobenzoyl)oxy]benzyl and 2,5-Bis[(4_-n-alkylsulfonylbenzoyl)oxy]benzyl Mesogens. Coleen Pugh, Matthew J. Thompson, Richard J. Mullins, Jong Hwi Hwang

Synthesis and Properties of Side Chain Liquid Crystalline Polymer with Cyano-phenylazo Mesogen. Zongwu Bai, Qiuhong Zhang, Scott C. J. Tseng, Seng C. Tan

Synthesis and characterization of a photochemically reactive side-chain liquid crystalline polymer containing the 4,4’-dialkoxy stilbene chromophore. Alline M. Peeler, Shivkumar Mahadevan, David Creed, Charles E. Hoyle

Liquid crystal induced morphologies in side chain LC block copolymers. Mitchell Anthamatten, Paula T. Hammond

Laterally Attached SCLCPs with Amphiphilic Hydrocarbon-Oligooxyethylene Substituents. Coleen Pugh, Steven M. Malinak, Jae Bong Rim

**Poster Session: Controlled Radical Polymerization**

K. Matyjaszewski, Organizer, Presiding

5:30–7:30

Atom Transfer Radical Polymerization of Methyl Methacrylate with Polyethylene-Functionalized Ligands. Shingtza Liou, Dennis Malaba, William Brittain, Youngjoon Lee, Roderic Quirk
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477.— Use of radical controlled polymerization of butadiene with AIBN and TEMPO for the determination of NMR characteristics of hydroxymethyl groups. Jean-Laurent Pradel, Bruno Ameduri, Bernard Boutevin, Patrick Lacroix-Demazas

478.— Determination of kinetic parameters in atom transfer radical polymerization. Young-je Kwark, Bruce M. Novak

479.— Hypervalent iodine iniferter. George S. Georgiev, Nicolay V. Tsarevsky, Elena B. Kamenska, Latchezar K. Christov

480.— POLYSTYRENE/POLYACRYLATE BLOCK COPOLYMER SYNTHESIS USING AN ACRYCLIC BETA-PHOSPHONYLATED NITROXIDE. Yves GNANOU, Sophie ROBIN

481.— Chain Transfer to Polymer in Radical Polymerizations of Mesogenic Acrylates. Coleen Pugh, Youlee Pae

482.— The use of methyl Å-brombo methacrylate as a chain transfer agent in emulsion polymerization to yield Å-bromo functionalized macromonomers. Stefan A. F. Bon, Stuart R. Morsley, Carl Waterson, David M. Haddleton

483.— Atom transfer polymerization of methyl methacrylate initiated by carbosilane dendritic species. Neldes J. Hovestad, Johann T. B. H. Jastrzebski, Gerard van Koten, Stefan A. F. Bon, Carl Waterson, David M. Haddleton

484.— Synthesis and Characterization of a Methyl Methacrylate Branched Polymer and a Methacrylic Acid Graft Copolymer. Yufang Li, William J Brittain

485.— Mechanism and kinetics of RAFT (Reversible Addition-Fragmentation Chain Transfer)-based controlled radical polymerization of styrene. Atsushi Goto, Koichi Sato, Takeshi Fukuda, Graeme Moad, Ezio Rizzardo, San H. Thang

486.— Atom transfer radical polymerization of poly(vinyl ether) macromonomers. Masahiko Minoda, Kenji Yamada, Masayuki Miyazaki, Masaki Endo, Kohji Ohno, Takeshi Fukuda

487.— Preparation of well-defined polymer brushes on silicon substrate by the surface-initiated ATRP technique and their characterization. Shinpei Yamamoto, Muhammad Ejaz, Kohji Ohno, Yoshinobu Tsujii, Mutsuo Matsumoto, Takeshi Fukuda

488.— Synthesis of nitroxides and alkoxyamines used in controlled/"living" radical polymerisation. Christophe LE MERCIER, Christiane BERNARD-HENRIET, Val&acuteerie de SAINTE CLAIRE, Fran&cedilcois LE MOIGNE, Paul TORDO, Jean-Luc COUTURIER, Jean-Philippe GILLET, Olivier GUERRET


490.— Cu-Catalyzed ATRP of styrene initiated by vinyl acetate telomers. Mathias Destarac, Bernard Boutevin

491.— ATRP of methyl methacrylate initiated by polychloroalkanes. Mathias Destarac, Krzysztof Matyjaszewski, Bernard Boutevin

492.— The effect of alkyl chain length on the chain transfer behaviour of n-alkyl mercaptans. Thomas P Davis, Heidi M Kapfenstein, Johan PA Heuts

493.— Star polymers via atom transfer radical polymerization from a simple, multifunctional initiator. Douglas R. Robello, Alexander Kraus

495.— The Effect of Ligands on Atom Transfer Radical Polymerization in Water-Borne Systems. **Jian Qiu**, Devon Shipp, Scott Gaynor, Krzysztof Matyjaszewski

496.— Absorption Spectroscopic Studies of Copper-Based Atom Transfer Radical Reactions. **Jian Qiu**, Tomislav Pintauer, Scott Gaynor, Krzysztof Matyjaszewski

497.— Removal of catalyst in atom transfer radical polymerization using crosslinked polystyrene ion-exchange resins. Krzysztof Matyjaszewski, **Tomislav Pintauer**, Scott Gaynor

498.— Synthesis of well-defined star polymers by atom transfer radical polymerization using the core-first approach. **Peter J. Miller**, Krzysztof Matyjaszewski, Jeffrey Pyun, Guido Kickelbick, Steve Diamanti

499.— Grafting styrene and acrylates from functionalized polyethylene by atom transfer radical polymerization. **Peter J. Miller**, Mircea Teodorescu, Matthew L. Peterson, Krzysztof Matyjaszewski

500.— Atom Transfer Polymerization of Acrylamides and Methacrylamides. **Mircea Teodorescu**, Krzysztof Matyjaszewski

501.— Atom transfer radical polymerization of t-butyl acrylate. **Kelly A. Davis**, Krzysztof Matyjaszewski

502.— The effect of solvents on atom transfer radical polymerization. **Michael J. Ziegler**, Hyun-jong Paik, Kelly A. Davis, Scott G. Gaynor, Krzysztof Matyjaszewski

503.— Immobilization of the Copper Catalyst in Atom Transfer Radical Polymerization. **Hyun-jong Paik**, Guido Kickelbick, Krzysztof Matyjaszewski

504.— Use of Difunctional Azo Initiators in the Block Copolymerization by Combination of Conventional and Atom Transfer Radical Polymerization. **Hyun-jong Paik**, Krzysztof Matyjaszewski

505.— Block Copolymers of Vinyl Acetate by Atom Transfer Radical Polymerization using Halogen Terminated (Macro)initiators. **Hyun-jong Paik**, Mircea Teodorescu, Jianhui Xia, Mathias Destarac, Krzysztof Matyjaszewski

506.— Atom Transfer Radical Polymerization of Protected Methacrylic Acids. Xuan Zhang, **Jianhui Xia**, Krzysztof Matyjaszewski

507.— Multidentate Nitrogen Ligands in Atom Transfer Radical Polymerization. **Jianhui Xia**, Krzysztof Matyjaszewski

508.— Homogeneous Reverse Atom Transfer Radical Polymerization Initiated by Benzoyl Peroxide. **Jianhui Xia**, Krzysztof Matyjaszewski

509.— Poly(n-butyl acrylate) brush macromolecules by ATRP: Determination of contour length from fractionation and AFM Studies. **Kathryn L. Beers**, Scott G. Gaynor, Krzysztof Matyjaszewski, Martin Moeller, Serge P. Sheiko, Svetlana A. Prokhorova

510.— Water-borne block copolymer synthesis and a simple and effective one-pot synthesis of acrylate-methacrylate block copolymers by atom transfer radical polymerization. **Devon A. Shipp**, Gabriel P McMurtry, Scott G Gaynor, Jian Qiu, Krzysztof Matyjaszewski

511.— Simulations of atom transfer, nitroxide mediated and reversible addition-fragmentation chain transfer radical polymerizations. **Devon A Shipp**, Krzysztof Matyjaszewski

512.— The synthesis of multifunctional star and hyperbranched polymers using atom transfer radical polymerization and atom transfer radical addition. Jeffrey Pyun, Xuan Zhang, Scott G. Gaynor, Krzysztof Matyjaszewski
513.— Synthesis of organic/inorganic hybrid materials from polysiloxane precursors using atom transfer radical polymerization. **Jeffrey Pyun**, Peter J. Miller, Krzysztof Matyjaszewski, Guido Kickelbick, Joseph Schwab, Joseph D. Lichtenhan

514.— Preparation of Macrodiols by Atom Transfer Radical Polymerization. **Anne K. Shim**, Veerle Coessens, Tomislav Pintauer, K. Matyjaszewski

515.— Atom transfer radical copolymerization of methyl methacrylate and n-butyl acrylate. Krzysztof Matyjaszewski, **Stephen V. Arehart**

516.— Controlling the Degree of Branching in ATRP of Hyperbranched Polyacrylates. Jae Y. Jho, **Seung H. Yoo**, Tae H. Yoon

517.— Chirality induction in atom transfer radical cyclopolymerization of (2S,4R)-pentanediyl bis(4-vinylbenzoate) using chiral diamine. Masashi Tsuji, Makoto Obata, Kazuaki Yokota, Toyoji Kakuchi

518.— Reversible activation of carbon-halogen bonds in transition metal-catalyzed living radical polymerization. **Tsuyoshi Ando**, Masami Kamigaito, Mitsuo Sawamoto

519.— Synthesis of highly branched polyethylene graft copolymers by combination of palladium diazadiene catalyzed and TEMPO-mediated polymerization. Rolf Muelhaupt, **Martin Baumert**, Johannes Heinemann, Ralf Thomann

520.— Transition metal-mediated living radical polymerization of styrene: design of initiating systems. **Yuzo Kotani**, Masami Kamigaito, Mitsuo Sawamoto

521.— Living radical polymerization of styrene with transition metal dithiocarbamate/AIBN systems: halogen-free living processes. **Masamichi Nishimura**, Masami Kamigaito, Mitsuo Sawamoto

522.— Synthesis of star-shaped polymers with divinyl compounds by metal-catalyzed living radical polymerization. **Kyung-Youl Baek**, Masami Kamigaito, Mitsuo Sawamoto


524.— Alternating copolymerization of N-phenyl maleimide and styrene. **Xiaojuan Hao**, Kyo Fujimori

525.— Telechelic acrylic polymers using degenerative iodine transfer polymerization. **Rutger D Puts**, Paul P. Nicholas, Jane E. Milam, Deborah L. Miller, Edward Elce, Jinsong Lee, Naser Pourahmady

**Poster Session: Polymers in Display Applications**

C. Weder, Organizer, Presiding

T.A. Tervoort, Organizer, Presiding

C.W.M. Bastaanssen, Organizer, Presiding

5:30–7:30

526.— The dielectric constant of a polymer filled nematic composite material: A numerical study. **R.H.C. Janssen**, A.A. Gusev, T.A. Tervoort, C.W.M. Bastaanssen

527.— Selective Plasticization in Electroluminescent Block Copolymers. **E. Elif Guerel**, Susan T. Pasco, Frank E. Karasz

528.— Novel Triarylamine polymers as hole transport materials in OLEDs. **Mukundan Thelakkat**, Christoph Schmitz, Hans-Werner Schmidt

530.— Application of new poly(malonic ester) with two symmetrical photoresponsive groups to erasable optical data storage media. **Yang-Kyoo Han**, Hai-Sub Na

531.— Effect of Ê-Stacking on Light Absorption and Emission in Conjugated Oligomers. M. David Curtis, **Amy B. Koren**, Jeffrey Kampf

532.— Preparation and Properties of Luminescent Metal-Complex Containing Conjugated and Non-Conjugated Polymers. **Jaehyun Kim**, Young-Gi Kim, Kethinni G. Chittibabu, Mario J. Cazeca, Dong-Yu Kim, Jayant Kumar, Sukant K. Tripathy

533.— Design and Synthesis of Light Emitting Conjugated Polymers Functionalized with Transition Metal Complexes. **Wai Kin Chan**, Po King Ng, Chi Tak Wong, Sijian Hou

534.— Combined p- and n-type doping in alternating BEDOT-pyridine conjugated polymers. C.J. DuBois, Jr., David J. Irvin, John R. Reynolds

535.— Synthesis of novel soluble polyimides based on alkylidiaminobenzophenones and their applications for the alignment films of LCDs. **Yusuke Tsuda**

536.— Photogeneration of Inclined Homeotropic Liquid Crystal Alignment by Azobenzene-Containing Polymer Thin Films. Seiichi Furumi, Masaru Nakagawa, Shin-ya Morino, Kunihiro Ichimura

537.— Synthesis of new thianthrene containing polymers and aromatic poly(oxadiazoles) and their application in OLEDs. **Silvia Janietz**, Armin Wedel, Reiner Friedrich, Sonja Anlauf

538.— Relationship of dynamical and photochemical behavior of photochromic polymers. Andreas Fritz, Andreas Schoenhals, Beate Sapich, Michael Rutloho, Joachim Stumpe

539.— High performance photosensitive polymers in thin films and their abilities to align liquid-crystals on the surface. M. Ree, S.I. Kim, S.W. Lee

540.— Electroluminescence of a series of n-type conjugated polyanilines. **Xuejun Zhang**, Samson A. Jenekhe

541.— Syntheses and Luminescence Properties of New Fluorescent Dyes and Polymers. Jaehyun Kim, **Young-Gi Kim**, Kethinni G. Chittibabu, Mario J. Cazeca, Dong-Yu Kim, Jayant Kumar, Sukant K. Tripathy

542.— A light-emitting copolymer with an electron transporting unit. **Chung Yup Kim**, Jai Kyeong Kim, Jae Woong Yu, Jae Min Hong, Hyun Nam Cho, Dong Young Kim

543.— Polarized electroluminescence from liquid-crystalline poly(p-phenylene vinylene) derivatives. **X. Linda Chen**, Zhenan Bao, Andrew J. Lovinger, Martin Meier, Ananth Dodabalapur, Karl R. Amundson, Rachel Jakubiak, Lewis J. Rothberg

544.— Poly(9,9-dialkylfluorene) derivatives forming highly oriented films. **Heinz-Georg Nothofer**, Tzenka Miteva, Andreas Meisel, Dieter Neher, Ullrich Scherf, Donald Lupo, Akio Yasuda, Wolfgang Knoll

545.— Syntheses and optical properties of novel highly photoluminescent poly(p-phenylene vinylene)s. Zhonghua Peng, Jianheng Zhang, Bubin Xu

546.— Blue Light-Emitting Devices based on Vacuum-Deposited Poly(p-phenylene). **Chang Seoul**, Won-Jun Song

547.— High Contrast Electrochromic Materials Based on Poly(3,4-propylenedioxythiophene) Derivatives. **Dean M Welsh**, Leroy J. Kloeppner, John R. Reynolds, Anil Kumar, E. W. Meijer

548.— Tuning the emission wavelength of a series of conjugated polyelectrolytes. **Michael B. Ramey**, John R. Reynolds
1999 Fall meeting


551.— Effect of different precursor routes on the electronic properties of poly[2-(2'-ethylhexyloxy)-1,4-phenylenevinylene] (EHPPV) and poly[2-(2'-ethylhexyloxy)-5-(phenylethynyl)-1,4-phenylenevinylene] (PAPPV). **Shih-Chun Lo**, Anna K. Sheridan, Ifor D. W. Samuel, Paul L. Burn*

552.— OLED based on poly(p-phenylene vinylene)/tris(8-hydroxy) quinoline aluminum heterostructure. **Jinglin Yang**, Haiping Hong, Mark E. Thompson

553.— Chromophore-Labeled Dendrimers For Use In Single Layer Light-Emitting Diodes. **Adam Freeman**, Jean M. J. Fréchet, Shannon C. Koen, Mark E. Thompson

554.— Photorefractive properties of molecules containing oligothiophenes and a nonlinear optical chromophore: the influence of conjugation length. **Liming Wang**, Man-Kit Ng, Haythem Saadeh, **Luping Yu**


557.— Micro-contact printing approaches to organic light emitting diode pixels. **Qingwu Wang**, Weijin Li, Ji Cui, Tobin J. Marks, Ghassan J. Jabbour, Bernard Kippelen, Nassar Peyghambarian

**WEDNESDAY MORNING**

**Grafted Polymers: Synthesis and Characterization**

Characterization

D. Friddy, Organizer
A. Karim, Organizer, Presiding
8:00—Introductory Remarks
8:05 — 558. CONTROLLED INTERFACIAL INTERACTION USING GRAFTED RANDOM COPOLYMERS. Thomas P. Russell, Elbert Huang, M. Husseman, E.E. Malmstrom, Craig J. Hawker

8:30 — 559. Characterization of amphiphilic arborescent graft polymers at the air/water interface. **Mario Gauthier**, Lan Cao, Miriam Rafailovich, Jonathan Sokolov


10:10 — 563. Rheology and structure of polymer layered-silicate nanocomposites. **Ramanan Krishnamoorti**
10:35 — 564. Monitoring the formation of grafted layers on solid surfaces. **Lynn Penn,** Talmadge F. Hunter, Y.J. Lee, R.P. Quirk

11:00 — 565. THE FORMATION OF END-TETHERED BRUSHES FROM POLYDISPERSE END-FUNCTIONAL POLYMERS. Jeffrey T. Koberstein, Charles Laub

11:25 — 566. WELL DEFINED GRAFT COPOLYMERS AT THE AIR-WATER INTERFACE. Aline F. Miller, Randal W. Richards, John R.P. Webster

**Section B**

**Polymers and Liquid Crystals**

**Molecular Transport in Liquid Crystals**

C. Bowman, *Organizer, Presiding*  
T. Long, *Organizer*  
H-W. Schmidt, *Organizer*

8:30 — 567. The solubility, diffusivity, and permeability of small molecules in liquid crystalline polymers. **Benny D. Freeman,** Claudine Noel, Anita J. Hill

9:10 — 568. Molecular design considerations in the synthesis of high conductivity PEMs for fuel cells. **Morton H. Litt,** Yue Zhang, Robert F. Savinell, Jesse S. Wainright

9:35 — 569. Balancing liquid crystallinity with microphase separation in block copolymers. **Christopher K. Ober,** Mingqi Li, Chiyang Chao, Xuefa Li

10:15 — 570. Towards ten-nanometer diameter discotic liquid crystalline dendrimers. Karen L. Wooley, **Christopher G. Clark**


11:30 — 573. Thermotropism of cationic tail-end polyoaps and analogous polysoap-surfactant complexes in the solid-state. C. Geraldine Bazuin, **Pascal Y. Vuillaume**

**Section C**

**Polymers in Display Applications**

C. Weder, *Organizer, Presiding*  
T. A. Tervoort, *Organizer*  
C.W.M. Bastiaansen, *Organizer*  
A. B. Holmes, *Presiding*

8:30 — 574. Polymer Light-Emitting Displays. **Alan J. Heeger**


9:35 — 576. Synthesis of cyano derivatives of Poly(2,5-bis(N-methyl-N-alkylamino)phenylene vinylene)s for use as potential blue light-emitting diodes. **Peter Zarras,** John D. Stenger-Smith, Gregory S. Ostrom, Lawrence H. Merwin, Cindy K. Webber

10:00 — Intermission


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11:10—579. Combinatorial methods for optimization of materials selection and device parameters in OLEDs. Christoph Schmitz, Peter Poesch, Mukundan Thelakkat, Hans-Werner Schmidt

11:35—580. The solid state spectroscopy of poly-5,5’-(4,4’-dinonyl, 2,2’bithiazole); from oligomers to polymer. Wendy M. Blanda, Anthony H. Francis, M. David Curtis

Section D

Optical Polymers: Advances in Optical Fibers and Waveguides
J. Harmon, Organizer
G. K. Noren, Organizer, Presiding

8:30—581. Tutorial on Optical Polymers for Fibers and Waveguides. Julie P. Harmon

9:10—582. Technology integration for sensor development. Luis H. Garcia-Rubio


10:20—Intermission


11:00—585. A dual cladding configuration for the fabrication of fiber-optic sensors. Andrea E. Hoyt, Larry A. Harrah, Nicole C. Coons, Teresa M. Powers


Chemistry of Fullerenes and Related Carbon Nanostructures
Cosponsored with MTLS (see page XX)

Applications of NMR to Complex Systems
Cosponsored with GEOC (see page XX)

WEDNESDAY AFTERNOON

Section A

Block Copolymers: Designing Molecules for Applications
Rheology/Processing
N. Hadjichristidis, Organizer
J. Mays, Organizer
S. Gido, Organizer
George Fytas, Presiding
Timothy P. Lodge, Presiding

1:30—587. Nonlinear rheology of diblock copolymer micelles. Hiroshi Watanabe

2:00—588. Synthesis and self-assembly of fluorinated polystyrene-polyisoprene block copolymers. Marc A. Hillmyer, Yu Ren, Timothy P. Lodge


3:00—Intermission


1999 Fall meeting


5:15 — 595. Competitive roles of block copolymer during polymer blending: suppression of coalescence and reduction of interfacial tension. **Suping Lyu**, Frank S. Bates, Christopher W. Macosko

**Polymers and Liquid Crystals**

**Liquid Crystalline Polymers and Modeling**

C. Bowman, Organizer, Presiding
T. Long, Organizer
H-W. Schmidt, Organizer

2:00 — 596. Nematic Solutions of Large Molecular Weight Side-Group Liquid Crystal Polymers. Julia A. Kornfield


3:05 — 598. Thermal behaviors and electrochemical properties of side-chain type polythiophenes. **N. Koide**, Y. Hirai

3:30 — Intermission

3:45 — 599. Magnetic field orientation of liquid crystalline thermosets: orientation kinetics. **Elliot P. Douglas**


4:35 — 601. Molecular Dynamics of liquid-crystalline copolymethacrylates containing cholesterol as mesogenic groups. **Andreas Schoenhals**, Dietmar Wolff, Steffen Weidner, Juergen Springer

**Section B**

**Polymers in Display Applications**

C. Weder, Organizer
T. A. Tervoort, Organizer
C.W.M. Bastiaansen, Organizer
Fred Wudl, Presiding
John R. Reynolds, Presiding

1:45 — 602. New deep blue and white light OLED materials. **Fred Wudl**, YANG CHENG, Bin Ma

2:10 — 603. Emission of polarized light from liquid crystalline segmented poly(arylenevinylene)s. Andreas Greiner, Josef Oberski, Kai-Uwe Clauswitz, Georg Luessem, Fenna Geffarth, Joachim Wendorff


3:00 — 605. Development of novel polymers for single layer light-emitting diodes. **Zhonghua Peng**, Bubin Xu

**Section C**
3:25—Intermission
4:10—607. Tunable multicolor electroluminescent polymer devices for full color displays. Samson A Jenekhe, Xuejun Zhang

Optical Polymers: Advances in Optical Fibers and Waveguides
J. Harmon, Organizer, Presiding
G. K. Noren, Organizer
1:30—609. Fluorinated methacrylic and vinyl polymer blends: miscibility conditions and applications as POF cladding materials. S. Pimbert, L. Avignon-Poquillon, G. Levesque
2:00—610. Transparent fluorocarbon polymer blends for fiber cladding applications. Melynda C. Calves, Julie P. Harmon
3:00—612. UV Curable acrylated oligomers: model characterization studies. Anthony J. Tortorello
3:30—613. Use of hydroxy functional fluoropolymer resins in free radical UV curable coatings. Gerry K. Noren

Polymeric Surfactants
Cosponsored with PMSE (see page XX)

Chemistry of Fullerenes and Related Carbon Nanostructures
Cosponsored with MTLS (see page XX)
THURSDAY MORNING

Grafted Polymers: Synthesis and Characterization
Synthesis
D. Priddy, Organizer, Presiding
A. Karim, Organizer, Presiding
8:00—Introductory Remarks
8:05—615. Morphology development during graft copolymerization on porous polypropylene spheres. Thomas A. Giroux, Cheng Q. Song
**8:45 — 617.** Charge-transfer complexes in grafting and curing processes initiated by ionising and UV radiation. **John L. Garnett**, Loo-Teck Ng, Visay Viengkhou, Iain W. Hennessy, Elvis F. Zilic

**9:05 — 618.** Cerium (IV) mediated grafting of acrylic monomers onto hydroxyethyl cellulose. **Emmett M. Partain**


**9:45 — 620.** 2D Chromatographic Analysis of Graft Copolymers Obtained by Copolymerization of Macromonomers via Conventional, Controlled Radical, and Anionic Polymerizations. **Axel H.E. Mueller**, Sebastian G. Roos, Bardo Schmitt

**10:05 — 621.** Liquid chromatographic separation of copolymers. **Dusan Berek**


**11:05 — 624.** Direct synthesis of polymer brushes. **Thomas A. P. Seery**, Preeti Dhar, Dale L. Huber, Fatma Vatansever

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**Polymers and Liquid Crystals**

**Polymerization in and of Liquid Crystals**

C. Bowman, Organizer

T. Long, Organizer

H-W. Schmidt, Organizer

A. Guymon, Presiding

**8:30 — 625.** Design of liquid crystal monomers for the cross-linking of high curvature lyotropic mesophases. **Douglas L Gin**, David H Gray, Mary A Reppy, Ryan C Smith, Jeffrey A Gruneich

**9:10 — 626.** Phase behavior and polymerization kinetics of a semi-fluorinated lyotropic liquid crystal. **Christopher L. Lester**, C. Allan Guymon

**9:35 — 627.** Polymerization kinetics of (meth)acrylates in self-assembled structures. **Brian J. Elliott**, Christopher N. Bowman

**10:00 — 628.** A new class of modular polymerizable lyotropic liquid crystals for the preparation of nanostructured materials. **Mary A. Reppy**, David H. Gray, Douglas L. Gin

**10:25 — Intermission**

**10:40 — Characterization**

**10:40 — 629.** Overlap of mesophase and morphology in liquid crystalline diblock copolymers. **Mitchell Anthamatten**, Paula T. Hammond


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**Optical Polymers: Advances in Optical Fibers and Waveguides**

J. Harmon, Organizer

G. K. Noren, Organizer
Melynda C. Calves, *Presiding*

**8:30 — 632.** Plastic optical fibers - pipe-dream or reality? Xina Quan

**9:15 — 633.** Theoretical analysis of the n-layer coextrusion process for preparing gradient-index polymer optical fibers. *Wen-Chang Chen, Yung Chang, Jyh-Ping Hsu*

**9:45 — 634.** Wavelength-tunable fiber gratings. *Arturo Hale, Anatoli A. Abramov, Robert S. Windeler, Thomas A. Strasser*

**10:15 — 635.** Micro Porous Silica: The All New Silica Optical Fibers. *Bolesh J. Skutnik*

**10:45 — 636.** Fluorescent optical fibers for data transmission. *H. Poisel, V. M. Levin, K.F. Klein*

**11:15 — 637.** UV-transparent coatings for the fabrication of optical fiber gratings. Debra A. Simoff, Rolando P. Espindola, Mark A. Paczkowski, Robert M. Atkins, N. Patrick Wang, *Arturo Hale*

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**Polymeric Surfactants**

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**THURSDAY AFTERNOON**

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**Block Copolymers: Designing Molecules for Application**

*Scattering*

N. Hadjichristidis, *Organizer*

J. Mays, *Organizer*

S. Gido, *Organizer*

Alexander Semenov, *Presiding*

N.P. Balsara, *Presiding*

**1:30 — 638.** Charged stars formed by association of charged-neutral block copolymers. *Patrick Michel Guenoun,* Francois Muller, Phillipe Fontaine, Michel Delsanti, Loïc Auvray, Yuan Chen, Jinchuan Yang, Jimmy W. Mays, Matthew Tirrell, Bruno Demµe, Pierre Lesieur

**2:00 — 639.** Structure and Mechanical Properties of Triblock Copolymers Subject to Extensional Deformation. *Ian W Hamley,* Christophe Daniel, Kell Mortensen


**3:00 — Intermission**

**3:15 — 641.** Identification of relaxation processes in the dynamic structure factor of diblock copolymers. Far from the ordering transition. *George Fytas,* Reinhard Sigel, Stergios Pispas, Dimitris Vlassopoulos, Nikos Hadjichristidis


**4:05 — 643.** Synthesis and characterization of macrophotoinitiators and block copolymers derived from bisacylphosphine oxides. *Faith J. Wyzgoski,* Huihan Meng, Peter L. Rinaldi, H. James Harwood


**4:45 — 645.** The synthesis of block copolymer through the combination of living anionic polymerization and controlled radical polymerization. F. Liu, *S.K. Ying,* N. Luo, B. Liu, Q. Liu
5:05 — 646. Low molecular weight polyisobutylene based diblock copolymers: Synthesis and thermodynamic characterization. Fabienne Duchemin, Mun Fu Tse, Hsien -C Wang, Ramanan Krishnamoorti

Polymers and Liquid Crystals
Polymer Dispersed Liquid Crystals
C. Bowman, Organizer
T. Long, Organizer, Presiding
H-W. Schmidt, Organizer


3:30 — Intermission


4:10 — 651. Smectic Layering in Nematic Liquid Crystals due to Immiscible Hydrocarbon-Fluorocarbon Segments. Aaron C. Small, Diana K. Hunt, Coleen Pugh


Optical Polymers: Advances in Optical Fibers and Waveguides
J. Harmon, Organizer
G. K. Noren, Organizer, Presiding


2:30 — 655. NLO-containing polymers with very low near-IR absorption. Kevin D. Belfield, George I. Stegeman, Ousama Najjar, Katherine J. Schafer, Joachim Meier, Tomas Pliska

3:00 — 656. Main chain imide-containing high Tg polymers. G. Levesque, D. Jouannet, T. N. Pham, M. N. Busnot

3:30 — 657. Design and Synthesis of Novel Conjugated Chiral Materials for Nonlinear Optics. Liang-Chy Chien, Shuangxi Wang, Kenneth D. Singer, Rolfe Petschek, Song P. Huang

4:00 — 658. Optimizing performance of photocured adhesives in optical fiber components. William V. Dower, Joe D. Oxman

4:30 — 659. Synthesis and properties of optically active polyurethane ionomers containing erbium. Quan Gu, William M. Risen

Polymeric Surfactants