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.uoa.gr; Sam Gido, Dept. ofPolymer 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@hawksbill.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@dsmdesptech.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. Griffin, Department of Chemistry / Box 5043, Univ. of Southern Mississippi, Hattiesburg, MS 39406, (601) 266-4701; fax (601) 266-4715; acgriffn@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, Dept. of Polymer Science, U of Southern Mississippi, Hattiesburg, MS 39406, (601) 266-4872, fax (601) 266-5504, charles.mccormick@usm.edu, http://www.psrc.usm.edu/~mcweb/.

Unilever 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, kelleys@tcdlink.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, prudhomm@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)

Teaching Polymers at All Levels: Kindergarten to Graduate School (CHED)

Sonja Krause, Dept. of Chemistry, Rensselaer Polytechnic Institute, Troy, NY 12180-3590, (518)276-8445, fax (518)276-4887, krauss@rpi.edu.

Applications of NMR to Complex Systems (GEOC)

Alan Jones, Clarkson School of Chemistry, Clark U, 950 Main St, Worcester, MA 01610-1477, (508)793-7115, fax (508)793-8861, ajones@vax.clarku.edu.

General Papers

Note: This is the preliminary program submited to ACS. It is not necessarily the same as the final program. Some of the special characters may not print out properly.

Preliminary Technical Program

Division of Polymer Chemistry

SUNDAY MORNING

Section A

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
9:25—3. New particle morphologies with controlled grafting. **Mehmet Demirors**, R. Veraert, C. Hermans
9:50—4. Application of living radical polymerization to enhance grafting of PS onto PBD. Duane B. Priddy, Yuquing Zhu, Bob A. Howell, Dave Meunier, John Lyons, Mehmet Demirors
10:15—5. Facile side-chain functionalization of polybutadiene and its use to prepare graft copolymers . **Ramiro Guerrero-Santos**, H.James Harwood, Duane Priddy
10:40—6. Controlled Synthesis of Graft Copolymers using the Macromononer Methodology. 1,1-Diphenylethylene-functionalized Macromonomers. Roderic P. Quirk, Taejun Yoo
11:05—7. A new synthetic strategy for the preparation of hyperbranched (arborescent) polystyrenes: a one-pot self-grafting process. **Bela Ivan**, Marta Szesztay
11:30—8. New graft copolymers prepared from dendritc macromonomers. **Daniel M. Knauss**, Hasan A. Al-Muallem

Section B

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**
9:30—10. Emulsion polymerization as a novel tool in controlled free-radical polymerization. **Robert G Gilbert**, James F Anstey, Nada Subramaniam, Michael J Monteiro
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
11:50—15. Pyrrole Diimine Copper Complexes for Initiation and Control of Atom Transfer Radical Addition and Polymerization Processes. **Bradford B. Wayland**

Section C

Stimuli-Responsive, Water-Soluble, and Amphipathic Polymers
C.L. McCormick, *Organizer*
Andrew B. Lowe, *Presiding*
8:30—Introduction
8:40—16. Stimuli-Responsive Water-Soluble and Amphipathic (Co)polymers. **Charles L. McCormick**, Andrew B. Lowe
9:00—17. Stimuli-responsive water soluble polymers and hydrogels: tailoring of the lower critical solution temperature, and efficient grafting on gold surfaces. **Andrµe Laschewsky**, El Djouhar Rekai, Erik Wischerhoff
9:20—18. Synthesis of Polyampholyte Microgels. **Kenneth W. Hampton**, Warren T. Ford
9:40—19. The Synthesis and Solution Behavior of pH-Responsive Cyclocopolymers Containing a Sulfobetaine Monomer. **R. Scott Armentrout**, Charles L. McCormick
10:00—Intermission
10:20—20. Self-diffusion of HASE associative thickeners . **Peter M. Macdonald**, Kazuomi Nagashima
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, Mµelanie Herve
11:20—23. Interpenetrating Polymer Networks with pH and Temperature Sensitivity. **Jing Zhang**, Nicholas A. Peppas

Section D

Polymer Characterization
R. B. Moore, *Organizer*
Houston Byrd, *Presiding*
8:10—24. Synthesis of n-vinylcarbazole containing water-soluble polymers and their spectral properties. **[a]Ozlem Yavuz**, A. Sezai Saraˆc
8:30—25. Controlled Porosity in Hydrogels Using Micellar Surfactant Templates Analysis Using Gel Permeation Chromatography and Atomic Force Microscopy. **Brian C Patterson**, David H. Van Winkle, Mukundan Chakrapani, Bruce R Locke, Randolph L Rill
8:50—26. Ultrahydrophobic surfaces due to high surface roughness of plasma polymerized fluoromonomers. **Meng C. Hsieh**, Wei Chen, Thomas J. McCarthy

9:10—27. Expansion of polystyrene using supercritical carbon dioxide: effects of molecular weight, polydispersity and low molecular weight components . **Christopher M. Stafford**, Thomas P. Russell, Thomas J. McCarthy
9:30—28. Aromatic Boronic Acid Flame Retardant Polymer Additives: Synthesis and Flame Retardant Testing. **Alexander B. Morgan**, Joshua L. Jurs, James M. Tour
9:50—29. Temperature dependence of the interfacial tension of polymer blends by the imbedded fiber retraction (IFR) method. **Girma Biresaw**, C. J. Carriere, R. L. Sammler
10:10—30. Thermal characterization of PMMA thin films on silica using modulated differential scanning calorimetry. **Crystal E. Porter**, Frank D. Blum
10:30—31. Chain-chain interactions in Cu(salen)-polythiophene hybrid materials. **Richard P. Kingsborough**, Timothy M. Swager
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
3:15—37. Cross-linkable homopolymers and copolymers by ADMET chemistry. Kenneth B. Wagener, Krystyna R. Brzezinska, Regina Schitter
3:45—38. Synthesis of poly(styrene-b-isobutylene-b-styrene) block copolymers using real-time in situ ATR-FTIR monitoring. **Robson F. Storey**, Thomas L. Maggio, L. Bryan Brister
4:15—39. Block copolymer synthesis by atom transfer radical polymerization. **Krzysztof Matyjaszewski**, Metin H Acar, Kathryn L Beers, Simion Coca, Kelly A Davis, Scott G Gaynor, Peter J Miller, Hyun-jong Paik, Devon A Shipp, Mircea Teodorescu, Jianhui Xia, Xuan Zhang
4:35—40. Synthesis and Characterization of Fluorinated Methacrylic Polymers from Atom Transfer Polymerization. David M Haddleton, **Stuart G Jackson**
4:55—41. Synthesis of Poly(ethylene-b-dimethylsiloxane-b-ethylene) by Anionic Polymerization and Hydrogenation. **Stephen F. Hahn**, Paul C. Vosejpka

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 alkoxyamines 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. Frµechet
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 alkoxyamine 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
5:20—49. New, commercially viable nitroxides for "living" free radical polymerization. **Rutger Puts**, John Lai, Paul Nicholas, Jane Milam, Shonali Tahilliani, William Masler, Naser Pourahmady

Section C

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**
1:40—51. Light-Stimulated Destabilization of PEG-Liposomes. David F. O'Brien, **Anja Mueller**, Bruce Bondurant
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
2:20—53. Interactions Between Hyperbranched Unimolecular Micelles and Liposomes as Cell Membrane-Mimics. Jian Guo, Stephanie Farrell, Hongbo Liu, **Kathryn E. Uhrich**
2:40—Intermission
3:00—54. Proteins as amphipathic biopolymeric materials. **Gordon C. Cannon**, J. Shawn Goodwin, Paul A. Stroud, Gregory G. Martin, Charles L. McCormick

3:20—55. Surface assembly and aqueous behavior of an amphipathic fungal hydrophobin and an associated polysaccharide. **Gregory G. Martin**, Gordon C. Cannon, Charles L. McCormick
3:40—56. Phase Transition in Protein-based Hydrogels. **Jonghwi Lee**, Frederic Prochazka, Dan W. Urry, Christopher W. Macosko
4:00—57. Non-Ionic Polsyilanes and Polysilynes in Aqueous Solution: Polymer Structure vs. Temperature. **Thomas J. Cleij**, Jennifer K. King, Leonardus W. Jenneskens
4:20—58. Hard Hydrogel - Soft Xerogel Transition of Poly(silamine) Gel. Yukio Nagasaki, Laibin Luo, Masao Kato, Teiji Tsuruta, Kazunori Kataoka

Section D

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
1:50—61. Plasma polymerization of solid phase polymer reactants (non-classical sputtering of polymers). **Jeffrey P. Youngblood**, Thomas J. McCarthy
2:10—62. The anionic polymerization of ethyl 2-cyanoacrylate in carbon dioxide. **Edward Kung**, Alan J. Lesser, Thomas J. McCarthy
2:30—63. Perfluorinated thermosetting resins. **Atsushi Watakabe**, Jun-ichi Tayanagi, Atsuo Okawara, Yukio Jitsugiri
2:50—64. The polymerization of Ä-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**
3:30—66. Synthesis, polymerization and kinetic studies of the new monomer, 4,5-dicyano-2-vinylimidazole. **David M. Johnson**, Paul G. Rasmussen, Nagash A. Clarke, Sarah E. Reybuck, Richard G. Lawton
3:50—67. Synthesis of Å-iminoaminate zirconium complexes and their application in ethylene polymerization. **Xin Jin**, Bruce Novak
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¬2Œ 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
83.— Substrate specificity in polymer-catalyzed solvolysis reactions of p-nitrophenyl alkanoates in aqueous methanol solution. **Guang-Jia Wang**, Wilmer K. Fife, Shanghao Liu, Slawomir Rubinsztajn, Martel Zeldin
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. **Hyoung J. Choi**, Jin H. Lee, Min S. Cho
87.— Rheological characterization of perfluoropolyether lubricant. Hyoung 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-alkyltriferrocenylsilanes): 2. thermal transition and optical activity. **Quihui 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
99.— The solvent induced crystallization and solid state polymerization of polycarbonates facilitated by supercritical carbon dioxide. **Stephen M. Gross**, Michael D. Goodner, George W. Roberts, Douglas J. Kiserow, Joseph M. DeSimone
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
101.— Properties of iron(II) acetate catalyzed bulk-polymerized poly(L-lactide). **Mikael Stolt**, Kasper Jalander, Anders Sodergard
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
107.— Thermal Analysis of Polystyrene Beads for Lost Foam Casting. **Lujia Bu**, Yunan Wan, Harry Littleton, Jimmy W. Mays
108.— Holographic data-storage materials formed by photopolymerization in epoxy matrices. **Timothy J. Trentler**, Joel E. Boyd, Vicki L. Colvin
109.— Inhibition of Iron Corrosion by Amine-Quinone and Sulfur-Quinone Polyurethanes. David E. NIkles, **Yongqi Hu**, Garry W. Warren
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
116.— Surface Molecular Structure of Poly(10,12-Nonacosadiynoic Acid) Langmuir-Blodgett Films. **Scott C.J. Tseng**, Zongwu Bai, Jay A. Mann, Seng C. Tan, Jerome B. Lando
117.— New functional biodegradable polymers by ROP of purposely designed lactones. **David Mecerreyes**, James L. Hedrick, Michael Trollsas, 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**
121.— Atomic force microscopy studies of poly(styrene-co-isobutylene-co-styrene) block copolymers, block copolymer ionomers and block copolymer ionomer/silicate nanocomposites. Kenneth A. Mauritz, **David A. Reuschle**, David A. Mountz, L. Bryan Brister, Robson F. Storey, Nora Beck Tan
122.— Thermogravimetric analysis of poly(styrene-co-isobutylene-co-styrene) block copolymers, block copolymer ionomers and block copolymer ionomer/silicate nanocomposites. Kenneth A. Mauritz, **David A. Reuschle**, Nabil Ali, L. Bryan Brister, Thomas L. Maggio, Robson F. Storey
123.— Mechanical properties of sol-gel derived Surlyn®/[silicon oxide] nanocomposites. Kenneth A. Mauritz, **Paul R. Start**
124.— The Influence of n-Alkyl Branches on Thermal Properties of Polyethylenes Prepared by Means of Metallocene- and Palladium-based Catalysts. Rolf Muelhaupt, **Dietmar Maeder**, Philipp Walter, Johannes Heinemann
125.— Materials applications of carbon nanotubes: hydrogen storage and polymer composites. **Sarah-Jane V. Frankland**, Donald W. Brenner
126.— The Characterizations of Core-Shell Tecto(Dendrimer) Molecules by Tapping Mode Atomic Force Microscopy. **Jing Li**, D. R. Swanson, D Qin, H.M. Brothers, L.T. Piehler, D.J Meier, D. A. Tomalia
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

129.— Plasma Etch Resistance of Polymeric Carbon Thin Films Prepared by Electron Cyclotron Resonance Plasma-enhanced Chemical Vapor Deposition. **Xiaohua Chen**, Laren. M. Tolbert, Zhao Yuan Ning, Dennis. W. Hess, Peter T. Lillehei
130.— Optical Storage in Aniline Oligomers. **David Sotero Dos Santos**, Cleber Renato Mendonˆca, 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
136.— Molecular Imprinting for Enantiomeric Separations of Benzodiazepines. Bradley R. Hart, Daniel J. Rush, Kenneth J. Shea
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**, Guiseppe 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
149.— Characterization of Di- and Triblock copolymers using coupled chromatographic methods. **Jana Falkenhagen**, Helmut Much, Wolfgang Stauf, Axel H. E. Mueller
150.— PP/PA6 Blends Compatibilized 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 Wirsµen, Ann-Christine Albertsson
155.— Synthesis of water-soluble polymers by atom transfer radical polymerization. Jude T. Rademacher, **Marina Baum**, **Mical E. Pallack**, William J. Brittain, William J. Simonsick
156.— Comparative studies of HEUR and di-n-alkyl ether associative thickeners. **Dharmista Mistry**, Tom Annable, Colin Booth
157.— Synthesis and characterisation of tertiary amine ABA and BAB triblock copolymers: a comparative study. **Giovanni F. Unali**, Steven P. Armes, Norman C. Billingham, Zdenek Tuzar, Ian W. Hamley
158.— Formaton 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
163.— Silicones For Photo-Induced Refractive Index Modulation: Divinyl Endcapped Siloxane Macromer in Poly(dimethylsiloxane) Matrix. **Jagdish M. Jethmalani**, Julia A. Kornfield, Robert H. Grubbs, Daniel M. Schwartz
164.— Reorganization of unilamellar phospholipid vesicles in aqueous media by the amphipathic fluorescently modified apolipophorin-III. **Paul A. Stroud**, Brian J. Cuevas, Gordon C. Cannon, Charles L. McCormick

165.— The synthesis and characterization of responsive zwitterionic cyclopolymers 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(Ñ-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 Makinose, 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
173.— Hydrophobically modified polyphosphazene polyelectrolytes. **Alexander K. Andrianov**, Yuri Y. Svirkin, Jianping Chen, Bryan E. Roberts
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.— Electroacitve conjugated polymers containing furan. **Carleton L Gaupp**, Barbara Tsuie, Jacek Brzezinski, John R Reynolds
182.— Alkyl Substituted Poly(thienylene 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, Jungseek Hwang, David B. Tanner
186.— Symmetrically derivatized poly(3,4-propylenedioxythiophene). **Leroy J. Kloeppner**, 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
188.— Synthesis and characterization of poly(2-ethynyl pyridinium tosylate) containing propagyl side chain. **Jong-Wook Park**, Y.-W. Lee, Y.-S. Gal, J.-M. Ko, J.-H. Chun
189.— Synthesis and properties of new electroluminescent material and poly(2,6-n-2-ethylhexyl carbazolyl cyanoterephthalidene). **Jong-Wook Park**, H.-C. Park, W.-K. Kim, J.-H. Lee, T.-W. Kim
190.— Synthesis of nitric oxide releasing silicone rubbers for biomedical applications. **Huiping Zhang**, Mark H. Schoenfisch, Mark E. Meyerhoff
191.— Polymerization of 1-hydrido-1-vinyldimethylsiloxy-3,3,5,5-tetramethylcyclotrisiloxane. **Jyri K. Paulasaari**, William P. Weber
192.— Synthesis and characterization of novel poly(aryl ether ketone)s containing fluorine-pendant group. **Guibin B. Wang**, Chunhai Chen, Zhenhua Jiang, Hongwei Zhou, Xianbin Liu, Wanjin Zhang, Zhongwen Wu, Xiaoyan Tian
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 Ä-(aminomethyl)acrylates having unprotected amino group. **Hideo Baraki**, Shigeki Habaue, Yoshio Okamoto
195.— New Synthetic Approaches to Soluble Polyarylenevinylene Type of Fluoresent 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¬60Œ 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, Kazuhiko 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-dimethylanthraquinonylene) or 1,8-(4,5-dimethylanthraquinonylene)/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.— Prepration 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
219.— Toward New Amphiphilic Polythiophenes: Synthesis of Regioregular Phosphonic Acid Functionalized Polythiophenes. **Karine Heuzµe**, 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
222.— Functional Microspheres and Microgels by Precipitation Polymerization of Divinylbenzene-55 and Maleic Anhydride. **Randy S. Frank**, Jeffrey S. Downey, Kui Yu, Harald D. H. Stover

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 Macroinitiator. **Peter A. Fox**, Robert M. Waymouth, Craig J. Hawker
229.— Perfluorocyclobutane-containing silorylene-siloxane polymers with pendant trifluoropropyl groups. **John Rizzo**, Frank Harris
230.— Poly(pyridinium salts): Synthesis and Polymerization of New Bis(pyrylium triflates). **Gerald B. Wayton**, Feiyue Lin, Frank W. 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
233.— Synthesis and Characterization of New Polyphenylquinoxalines Via Self-Polymerizable Quinoxaline Monomers. **Daniel J. Klein**, Jong-Beom Baek, Frank W. Harris
234.— Synthesis and Characterization of Polyimides Containing Multiple Alkyl Side Chains. **Huabin Wang**, Zhihao Shen, Mingming Guo, 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
239.— Synthesis and Characterization of Polyacene Materials. Gregory L. Baker, **Chun Wang**, Cory Ruud
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
246.— Polymerization of the Z and E isomers of bis(triethoxysilyl)-2-butene. Douglas A. Loy, **Raef M. Shaltout**, Joseph P. Carpenter, K. Dorhout, K. J. Shea
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
249.— Chromophore Incorporated Fluorinated Aromatic Polyester for Electro-Optic Applications. **Cheng Zhang**, Chuanguang Wang, Chaoyin Zhou, Michael S. Lee, Mingfei Chen, Larry R. Dalton, Hua Zhang, William H. Steier
250.— Novel urethane-urea copolymers containing siloxane linkages for electro-optic applications. **Chuanguang Wang**, Cheng Zhang, Chaoyin Zhou, Mingfei Chen, Larry R. Dalton, Guilin Sun, Hua Zhang, William H. Steier
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-decenyl-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
256.— Design of iron- and ruthenium-containing polymers. Alaa S. Abd-El-Aziz, **Erin K. Todd**, Christine R. de Denus, Alexa A. Dembek, Paul J. Fagan
257.— Polymerization of phenyllactide. Gregory L. Baker, **Tara L. Simmons**
258.— Segmented poly(arylene ether phosphine oxide)-poly(dimethylsiloxane) copolymers. William D. Polk, Sue J. Mecham, Sheng Wang, M. Sankarapandian, Thomas E. Glass, James E. McGrath
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 nitrioxide-mediated radical polymerization. **Nan-Loh Yang**, Deliang Zhou

264.— Design, Synthesis and First Metal Complexes of Dendritic 5,5"-disubstituted-2,2‘:6‘,2˜-Terpyridine Ligands. **Ulrich S. Schubert**, **Christian H. Weidl**, Charles N. Moorefield, Gregory R. Baker, George R. Newkome
265.— Chirality induction in cyclopolymerization of nonconjugated asymmetrical diene having chiral template. **Hiroshi Nakade**, Takahiro Uesaka, Makoto Obata, Kazuaki Yokota, Toyoji Kakuchi
266.— Synthesis, Characterization, Curing, and Thermostability of Ladder-like Polyepoxysiloxanes. **Yuhui Lin**, Kumari P. Pramoda, Weiyu Chen, T. S. Chung, Rong-ben Zhang
267.— Synthesis, Characterization and Electrostatic Dissipating Property of Comb-like Poly(oxyalkylene)imide-Functionalized PP and SEBS. **Jiang-Jen Lin**, Shi-Min Shau, I-Jein Cheng, Chiu-Nan Chen
268.— Synthesis of Poly[disilanyleneethynyleneoligo(thienylene)ethynylene]s and their photoconductivity. **Masaya Kakimoto**, Hideki Kashihara, Yoichi Yamaguchi, Toshihiko Takiguchi
269.— Precipitation polymerization of divinylbenzene: An investigation of the particle formation mechanism. **Jeffrey S. Downey**, Randy S. Frank, Geoff McIsaac, Harald D. H. Stover
270.— Synthesis of calcium-ion containing telechelic poly(L,L-lactide) ionomers. **John W. Sherman**, Robson F. Storey
271.— Probing the effects of livingness of the carbocationic polymerization of isobutylene. **Christopher L. Curry**, Robson F. Storey
272.— Rapid monomer consumption during initiation of living cationic polymerization of isobutylene. **Robson F. Storey**, Andrew B. Donnalley
273.— Real-time isobutylene polymerization kinetics via ATR-FTIR spectroscopy: effect of temperature and medium polarity using BCl¬3Œ coinitiator. **Thomas L. Maggio**, Robson F. Storey
274.— Ring-opening Polymerization of Ethylene Carbonate and Depolymerization of Poly(ethylene oxide-co-ethylene carbonate). **Jong-Chan Lee**, Morton H. Litt

MONDAY MORNING

Section A

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
9:25— 277. Neutron Reflectivity of Grafted Polymer Brushes under Shear. **Sushil K. Satija**, Robert Ivkov, Paul Butler, L. J. Fetters
9:50— 278. Frictional behavior of self-assembled polymer brushes. **Phillip Schorr**, S.M. Kilbey, Matthew Tirrell

10:15— 279. Kinetic vs thermodynamic control of protein adsorption by grafted polymer layers. **Igal Szleifer**, Javier Satulovsky
10:40— 280. Mobility of polymers in nanometer slits: kinetics of polymer melt intercalation in layered silicates. **E. P. Giannelis**, H. Chen, J. Demeter, E. Manias, N. Hadjichristidis, A. Karim
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
10:50— 288. The Copper Catalyst in Atom Transfer Radical Polymerizations - Structural Observations. **Guido Kickelbick**, Ulrich Reinoehl, Teja S. Ertel, Helmut Bertagnolli, Krzysztof Matyjaszewski
11:10— 289. Atom transfer radical polymerization of vinyl monomers mediated by stable ruthenium-carbene complexes. **Albert Demonceau**, Francois Simal, Lionel Delaude, Dominique Jan, Alfred F. Noels
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
9:20— 294. Shear and pH induced associative behavior of twin-tailed, hydrophobically modified , water-soluble polymers. **Geoffrey L. Smith**, Charles L. McCormick
9:40— 295. Photoresponsive thickening of aqueous solutions. Iolanda Porcar, Bertrand Cesar, **Christophe Tribet**
10:00—Intermission
10:20— 296. Fluorescence quenching kinetics of anthracene-labeled poly(methacrylic acid). **John H. Clements**, Stephen E. Webber
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
11:20— 299. Photo-Induced Refractive Index Modulation of Bismethacrylate Endcapped Siloxane Macromer In Poly(dimethylsiloxane) (PDMS) Matrix. **Jagdish M. Jethmalani**, Julia A. Kornfield, Robert H. Grubbs, Daniel M. Schwartz

Section D

Hydrogen Bonding for Macromolecular Self-Assembly
A. C. Griffin, *Organizer, Presiding*
R. N. DeMartino, *Organizer*
8:30— 300. Architecture And Dynamics of Reversible Polymers Based on Hydrogen Bonding. Rint P. Sijbesma, J.H.K. Ky Hirschberg, Serge H.M. Soentjens, E.W. Meijer
9:00— 301. Supramolecular liquid-crystalline materials formed by hydrogen-bonded assembly processes . **Takashi Kato**, Takayasu Yasuda, Kiyoshi Kanie, Osamu Ihata, Norihiro Mizoshita, Kenji Hanabusa, Masakatsu Ukon, Yo Shimizu
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
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Polymeric Materials in Separations
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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**
2:30— 309. Theory of fibre stabilization in self-assembled peptide beta-sheet tapes. Irina Nyrkova, **Alexander Semenov**, Amalia Aggeli, Neville Boden
3:00—Intermission
3:15— 310. Block Copolymers with Low Surface Energy, Liquid Crystalline Segments: The Interplay of Surface and Bulk Liquid Crystallinity. **Christopher K. Ober**, Maoliang Xiang, Kookheon Char, Jan Genzer, Easan Sivaniah, Edward J. Kramer, Daniel A. Fischer
3:45— 311. Templating nanoporosity in organosilicates with well-defined branched macromolecules and block copolymers. **James Hedrick**, Mikael Trollsas, Cattien Nguyen, Jules Remenar, Craig Hawker, Ken Carter, Willi Volksen, Do Yoon, Robert Miller
4:15— 312. Application oriented structure variation of cationic block copolymers. **Werner Jaeger**, Bernd-Reiner Paulke, Arvid Zimmermann, Antje Lieske, Ulrich Wendler, Jorg Bohrisch
4:35— 313. Diblock thin films with regularly packed nanochannels. **Guojun Liu**, Jianfu Ding, T. Hashimoto, F. M. Winnik
4:55— 314. Characterization of di- and triblock copolymers using coupled chromatographic methods. **Jana Falkenhagen**, Helmut Much, Wolfgang Stauf, Axel H.E. Mueller
5:15— 315. Synthesis and Characterization of Shell Cross-linked Nanoparticles Containing a Degradable Core Domain. Karen L. Wooley, **Qi Zhang**

Section B

Controlled Radical Polymerization
Degerative 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 Chiefari, Roshan T.A. Mayadunne, Graeme Moad, San H. Thang
2:30— 317. Preparation of macromonomers via chain transfer - with and without added chain transfer agent. **John Chiefari**, Justine Jeffery, Graeme Moad, Ezio Rizzardo, 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**
4:10— 321. Copolymerization of n-Butyl Acrylate with Methyl Methacrylate and PMMA Macromonomers: Comparison of Reactivity Ratios in Conventional and Atom Transfer Radical Copolymerization. Axel H.E. Mueller, Sebastian G. Roos, Krzysztof Matyjaszewski
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-Subsituted Maleimides with Styrene Using Atom Transfer Radical Polymerization. Guang-Qiang Chen, Zhi-Qiang Wu, Jian-Ru Wu, Zi-Chen Li, **Fu-Mian Li**

Section C

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
2:20— 329. The solution behavior of hydrophobically modified polyvinylamine and dodecyltrimethylammonium bromide. Robert Y. Lochhead, Stacey V. Maggio
2:40— 330. The use of responsive polyelectrolyte and hydrogen-bonded polymers in surface chemistry and catalysis . **David E. Bergbreiter**
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**
4:20— 334. Shear responsive water-soluble polymers utilized in drag reduction. **Martin E. Cowan**, Charles L. McCormick, Roger D. Hester

Section D

Hydrogen-Bonding for Macromolecular Self-Assembly

A. C. Griffin, *Organizer*
R. N. DeMartino, *Organizer, Presiding*
1:30— 335. Liquid crystals from hydrogen-bonded systems. **Duncan W. Bruce**, Kimberley Willis, Goran Ungar
2:00— 336. Supramolecular association of acid terminated polydimethylsiloxane in non polar solvents. **Laurent Bouteiller**, Stephane Abed, Sylvie Boileau
2:30— 337. Wittig reactions on phosphonium-stoppered [2]rotaxanes. A new route to macromolecular daisy chains. J Fraser Stoddart, **Stuart J Rowan**, Stuart J Cantrill
3:00— 338. Spontaneous Formation of Double-Twisted Helix in A Banana-Shaped Liquid Crystal and Isoregic Chiral Smectic C Polyester. **Liang-Chy Chien**, Chong-Kwan Lee, Feng Bai, Christopher Y. Li, Stephen Z. D. Cheng, Rolfe Petschek
3:30— 339. Role of H-bonds in the formation of chiral LC networks. **Raisa V. Talroze**, Georgii A. Shandryuk, Sergei A. Kuptsov, Marina A. Koval', Alexei S. Merekalov, Nicolai A. Plate', Vladimir S. Bezborodov, Eugene M. Terentjev
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

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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
8:05— 342. Graft copolymers by atom transfer radical polymerization. Krzysztof Matyjaszewski, Kathryn L. Beers, Scott G. Gaynor, Simion Coca, Hyun-jong Paik, Mircea Teodorescu, Peter J. Miller
8:30— 343. ABC/BCD POLYMERIZATION: A SELF-CONDENSING VINYL AND CYCLIC ESTER POLYMERIZATION BY COMBINATION FREE RADICAL AND RING OPENING TECHNIQUES FOR THE PREPATATION OF NOVEL GRAFT COPOLYMERS. James Hedrick, Mikael Trollsas, 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 Benoit, 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**
10:35— 348. Molecular Composites: II: Inclusion Complexes & Graft Polymerization. **Munmaya K Mishra**, D. Das, J. R. Swain, S. Lenka, G. E. Wnek, R. M. Ottenbrite
11:00— 349. Miscibility of SCLCPs with Different Architectures. **Coleen Pugh**, Chun Chang, Andrea M. Kasko
11:25— 350. Morphology control in graft polymerization of styrene with polypropylene . **Cheng Q. Song**, Thomas A. Giroux

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 Mµechin, Michel Dumon
9:30— 354. Synthesis of oligomers by stable free radical polymerization of acrylates, methacrylates, and styrene with alkoxyamin initiators. **Helmut Keul**, Dirk Achten, Hartwig Hoecker
9:50— 355. Siloxane/Styrene Copolymers via Nitroxide Mediated Radical Polymerization. **Steven K. Pollack**, Dirk U. Singer
10:10— 356. Mesogen-Jacketed Liquid Crystalline Polymers Via Stable Free Radical Polymerization. Padma Gopalan, Stefania Pragliola, **Christopher Ober**, Patrick Mather, Hong Jeon
10:40—Intermission
10:50— 357. Atom transfer radical polymerization of p-acetoxystyrene for the synthesis of amphiphilic block copolymers. J. Kops, X. Chen, K. Jankova, J.H. Truelsen, W. Batsberg
11:10— 358. Star polymers with perfectly alternating arms from dendritic initiators. Robert D. Miller, **Andreas Heise**, Mikael Trollsås, Teddie Magbitang, James L. Hedrick, Curtis W. Frank
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*

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
11:25— 365. Polymer filled nematics: a new class of light scattering electro-optical devices. **Marysia C.W. van Boxtel**, Dick J. Broer, Cees W.M. Bastiaansen
11:50— 366. Requirements for novel materials for Photo-luminescent LCD Technology. **Ian D Springle**, Paul A Bayley, William A Crossland, Barbara Needham, Anthony B Davey

Section D

Polymer Characterization
R. B. Moore, *Organizer*
8:30— 367. Development of new poly(urethane)s for repair and replacement of the knee joint meniscus. **Coenraad J. Spaans**, Jacqueline H. de Groot, Folkert G. Dekens, Rene P.H. Veth, Albert J. Pennings
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
9:30— 370. Surface Energies of Ladder-like Polyepoxysiloxanes. **Wei-Yu Chen**, Yuhui Lin, Kumari P. Pramoda, Kui-Xiang Ma, T. S. Chung
9:50— 371. Supramolecular polymers for growth of 1-D ordered thin films under ultra-high vacuum. **Chengzhi Cai**, Martin Boesch, Ye Tao, Armin Kuendig, Bert Mueller, Christian Bosshard, Ivan Biaggio, Peter Guenter, Jens Weckesser, Johannes Barth, L. Buergi, O. Jeandupeux, Klaus Kern
10:10— 372. Fiber reinforced composites from epoxidized soybean oil. **James O. Stoffer**, Peng Peng Lu, L.R. Dharani, Robert A. Babcock
10:30— 373. Comparative study of the photo-oxidation of linear low density polyethylene under natural and accelerated weathering conditions. **Adams Tidjani**
10:50— 374. Binary mixed surfaces through silicon-supported tris(trimethylsiloxy)silyl monolayers. Adsorption of poly(styrene) on model mixed surfaces. **Alexander Y. Fadeev**, Christopher M. Stafford, Thomas P. Russell, Thomas J. McCarthy

11:10— 375. Controlled release of 9-chloro-2-methylellipticinium acetate from a biodegradable polymer: release kinetics, in vitro and in vivo effects on cellular growth. **Eric T. Crumpler**, Princess Imoukhuede, Michelle Keawphalouk, Joshua Landa, Robert Langer
11:30— 376. Linear and Hyperbranched Flyorescent Polyphenylquinoxalines by means of AA-BB and AB2 Monomers. **Jong-Beom Baek**, L. -C. Chien

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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 Mªoeller, *Presiding*
1:00— 377. Phase Diagram, Mechanisms, and Kinetics of Morphological Transitions of Diblock Copolymer Aggregates in Solution. Hongwei Shen, Lei Chen, **Adi Eisenberg**
1:30— 378. Molecular weight dependend structural transitions in surface induced nano patterns of ultrahin films of poly(styrene)-block-poly(vinylpyridine) on mica. Peter Eibeck, Joachim P. Spatz, Igor I. Potemkin, Elena Yu. Kramarenko, Alexei R. Khokhlov, **Martin Mªoeller**
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
4:05— 383. Self-assembly of rod-coil block copolymers. **Samson A. Jenekhe**, X. Linda Chen
4:25— 384. Block Copolymer Amphiphiles of Different Architectures Investigated using the Quartz Crystal Microbalance (QCM) Technique: In-situ Investigation of Adsorption

Properties. **Rigoberto C. Advincula**, Mi-Kyoung Park, Akira Baba, Futao Kaneko, Jinchuan Yang, Jimmy Mays
4:45— 385. Anionic synthesis of block copolymers of styrene and propylene oxide and their application as steric stabilizers of dispersion polymerizations. Roderic P. Quirk, **Gilda M. Lizµarraga**, John E. Davis, Gladys M. Avilµes

Section B

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**
3:00— 389. Highly And Hyperbranched Copolymers by Self-Condensing Vinyl Copolymerization. **Axel H.E. Mueller**, Peter F.W. Simon, Galina I. Litvinenko
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

Section C

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**
3:00— 395. Anisotropic Photopolymerization and Fluorescence Study of Discotic Materials. **Milind M. Sonpatki**, Tatiana Sergan, Jack R. Kelly, L.-C. Chien
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
4:35— 398. Circularly polarized light produced with glassy liquid-crystal films. **Shaw H. Chen**, Dimitris Katsis, John C. Mastrangelo, Ansgar Schmid, Tetsuo Tsutsui

Section D

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

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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 Amphiphilic 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**
407.— Novel fluorinated block copolymers for the construction of low energy surfaces. **S.K. Ying**, **Z.B. Zhang**, S.R. Wang, Z.Q. Shi

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
412.— Block Copolymers of Styrene and Stearyl Methacrylate. Synthesis, Characterization and Micelle Formation in Selective Solvents. **Marinos Pitsikalis**, 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
423.— Microphase Separation Behaviour in Diblock and Triblock Copolymers. Confirmation of the Universality of ñ. **Shao-Min Mai**, Simon Turner, Withawat Mingvanish, Chiraphon Chaibundit, Frank Heatley, J Patrick A Fairclough, Mark W Matsen, Colin Booth, Anthony J Ryan
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
426.— Self-assembly study of a series of novel amphiphilic rod-coil diblock copolymers. **Hengbin Wang**, **Luping Yu**, Hsien-Hau Wang

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 Heeley
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-cinnamoylethyl 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 ë-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 Hµeroguez, 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-butyl 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

446.— Synthesis of degradable ring-opening copolymers. **Daniel Colombani**, Michel Arotˆcarena, 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
449.— Synthesis and characterization of a novel graftable polyethylene glycol macromer for stabilization of colloidal polystyrene particles. **Jennifer S. Shay**, Robert J. English, Richard J. Spontak, Saad A. Khan
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

463.— Formation of supramolecular assemblies by complementary asociation of octadecyloxy tartaric acid and bispyridyls. **Alok Singh**, Syed B. Qadri, Yuri Lvov, Jean-Marie Lehn
464.— Superbasic aliphatic polyamidines as perspective polymeric carriers for NLO-active chromophores. **Frank Boehme**, Liane Haussler, Andrey V. Tenkovtsev, Alexander V. Yakimansky
465.— Stoichiometric complexes made of naturally occurring poly(Ç,D-glutamic acid) and cationic surfactants . Graciela Pµerez-Camero, Antxon Martµinez de Ilarduya, Montserrat Garcµia-Alvarez, **Sebastian Mu‰noz-Guerra**
466.— Hierarchical self-assembly of double-helical ropes from nucleobase-appended bolaamphiphilc monomers. **Toshimi Shimizu**, Rika Iwaura, Mitsutoshi Masuda
467.— 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
468.— Kinetics study on catalyst effect by thin film polymerization of liquid crystalline copolymer. Si-Xue Cheng, **Tai-Shung Chung**
469.— Triphenylene and pentayne based disc-rod triple mesogens with intramolecular acceptor functions. **Dietmar Janietz**, Sven Mahlstedt, Andreas Stracke, Joachim H. Wendorff
470.— Laterally Attached SCLCPs Designed to Exhibit Smectic C Mesophases. Coleen Pugh, **Pukun Zhu**
471.— 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**
472.— Synthesis and Properties of Side Chain Liquid Crystalline Polymer with Cyano-phenylazo Mesogen. **Zongwu Bai**, Qiuhong Zhang, **Scott C. J. Tseng**, Seng C. Tan
473.— Synthesis and characterization of a photochemically reactive side-chain liquid crystalline polymer containing the 4,4‘-dialkoxystilbene chromophore. **Alline M. Peeler**, Shivkumar Mahadevan, David Creed, Charles E. Hoyle
474.— Liquid crystal induced morphologies in side chain LC block copolymers. Mitchell Anthamatten, **Paula T. Hammond**
475.— Laterally Attached SCLCPs with Amphiphilic Hydrocarbon-Oligooxyethylene Substituents. Coleen Pugh, Steven M. Malinak, **Jae Bong Rim**

Poster Session: Controled Radical Polymerization
K. Matyjaszewski, *Organizer, Presiding*
5:30–7:30
476.— Atom Transfer Radical Polymerization of Methyl Methacrylate with Polyethylene-Functionalized Ligands. **Shingtza Liou**, Dennis Malaba, William Brittain, Youngjoon Lee, Roderic Quirk

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-Desmazes**
478.— Determination of kinetic parameters in atom transfer radical polymerization. **Young-Je Kwark**, **Bruce M. Novak**
479.— Hypervalent iodine iniferters. George S. Georgiev, **Nicolay V. Tsarevsky**, Elena B. Kamenska, Latchezar K. Christov
480.— POLYSTYRENE/POLYACRYLATE BLOCK COPOLYMER SYNTHESIS USING AN ACYCLIC 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 Ä-bromo methacrylate as a chain transfer agent in emulsion polymerization to yield Ä-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
489.— Novel routes to controlled structure water-soluble polymers: Atom Transfer Radical Polymerisation of sodium methacrylate in aqueous media. **Emma J. Ashford**, V. Naldi, R. O'Dell, N. C. Billingham, S. P. Armes
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**
494.— Controlled Polymerization of Styrene using 5,5˜-Dimethyl-2,2':6',2˜-Terpyridine Copper(II) Complexes. **Ulrich S. Schubert**, Christian E. Spindler, Christian Eschbaumer, Oskar Nuyken

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 Radical 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 Mªoeller, Sergei S. 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
523.— C¬60Œ End-Capped Polystyrene. **Alanta L. Lary**, Warren T. Ford, Thomas H. Mourey
524.— Alternating copolymerizaion of N-phenyl maleimide and styrene. **Xiaojuan Hao**, Kiyo 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. Bastiaansen, *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. Bastiaansen
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
529.— Efficient, blue light-emitting diodes using crosslinked polymer multilayers. **Jianping Chen**, G. Klaerner, J.-I. Lee, D. Markiewicz, V. Y. Lee, R. D. Miller, J. C. Scott

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 È-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 alkyldiaminobenzophenones 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 Rutloh, 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 polyquinolines. **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

549.— Synthesis and Langmuir Monolayer Properties of Functional Diamine Amphiphiles: Materials for Ultrathin Films in Display Applications. **Rigoberto Advincula**, Mi-kyoung Park, Seiji Inaoka, Masatoshi Kidowaki, Kunihiro Ichimura
550.— New EDOT-based discrete oligomers: a route to low band gap chromophores. **Philippe Schottland**, John R. Reynolds
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. Frµechet, Shannon C. Koene, 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**
555.— A novel bright blue electroluminescent polymer: Poly[4,4‘-biphenylene-Ä-(9˜,9˜-dihexyl-3-fluorenyl)vinylene]. Soon-Ki Kwon, **Yun-Hi Kim**, Byeong-Kwan Ahn, Dong-Cheol Shin, Han-Seong Yu, Woo-Hong Kim
556.— Synthesis and luminescent properties of poly(terphenylene Ä-cyanovinylene) derivative . Soon-Ki Kwon, **Yun-Hi Kim**, Dong-Cheol Shin, Jun-Hwan Ahn, Han-Seong Yu, Seong-Ki Kang
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

Section A

Grafted Polymers: Synthesis and Characterization
Characterization
D. Priddy, *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
8:55— 560. Polymer Brushes and Mushrooms in Polymeric Matrices. S. H. Anastasiadis, H. Retsos, K. Kunz, C. Toprakcioglu, G. Smith, G. Hadziioannou, M. Stamm
9:20— 561. Grafting Polymer Brushes From Melt: Polystyrene Layers Tethered To Epoxysilane Self-Assembling Monolayers. **Vladimir V. Tsukruk**, Igor Luzinov, Daungrut Julthongpiput, Hauke Malz, Jurgen Piontek
9:45— 562. A model study of tethered chains using Langmuir monolayers of diblock copolymers. **Michael S. Kent**, J. Majewski, L. T. Lee, S. Satija
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**
10:40— 571. Synthesis and Properties of A New Self-Assembling Discotic Liquid Crystal. **Huabin Wang**, Zhihao Shen, Jason J. Ge, Stephen Z. D. Cheng, Frank W. Harris
11:05— 572. Synthesis and Characterization of Sugar-Coated Discotic Liquid Crystals. J. Fraser Stoddart, **Narayanaswamy Jayaraman**, Joaquin Barbµera, Ana C. Garcµes, Ana Omenat, Jos&acutee-Luis Serrano
11:30— 573. Thermotropism of cationic tail-end polysoaps 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**
9:10— 575. The copolymer route to conjugated materials for LEDs. **A. B. Holmes**, B. S. Chuah, F. Geneste, R. E. Martin, H. Rost, F. Cacialli, R. H. Friend, H.-H. Hoerhold, S. Pfeiffer, D.-H. Hwang
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
10:20— 577. Polymer solution light-emitting devices. **Yang Yang**, Shun-chi Chang
10:45— 578. Material Issues for Construction of Organic and Polymeric Driving Circuits for Display and Electronic Applications . **Zhenan Bao**, Ananth Dodabalapur, Yen Yi Lin, John Rogers, Andrew Lovinger, Linda Chen, V. Reddy Raju, Howard Katz, Wenjie Li

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**
9:50— 583. Development of a fiber-optic pH sensor for on-line control. Luis H. Garcia-Rubio, **Michelle L. Janowiak**, Haibin Huang, Sylvia Chang
10:20—Intermission
10:30— 584. Fiber optic based sensing of oxygen using Mo¬6ŒCl¬12Œ PTMSP composites. Gregory L. Baker, **Cory J. Ruud**, Ruby N. Ghosh
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
11:30— 586. Development of new spectroelectrochemical waveguide sensors. **Susan E. Ross**, Carl J. Seliskar, William R. Heineman

Chemistry of Fullerenes and Related Carbon Nanostructures
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Applications of NMR to Complex Systems
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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
2:30— 589. Scaling law for the liquid to soft solid transition kinetics in a block copolymer melt. **N.P. Balsara**, W. Kim, J. Lee, M. Chang, B. Garetz, M. Newstein, S. Patel
3:00—Intermission
3:15— 590. Creating block copolymers via melt coupling reactions. Charles A. Orr, Frank S. Bates, Christopher W. Macosko
3:45— 591. Adsorption of hydrophobically modified polyelectrolytes from dilute aqueous solution at the solid/liquid interface. **Ryan G. Toomey**, Phillip A. Schorr, Matthew V. Tirrell, Frank S. Bates, Yingfan Wang, Rigoberto Advincula, Jimmy W. Mays

4:15— 592. Thermoplastic elastomers from segmented copolyetheresteramides with self assembling aramid segments. **Meike C.E.J. Niesten**, Reinoud J. Gaymans, Annemieke Ten Brinke
4:35— 593. Order-to-order transitions in poly(isoprene-ethylene oxide) diblock copolymers. **George Floudas**, Ralph Ulrich, Uli Wiesner, Ben Chu
4:55— 594. Processing and properties of thin block copolymer films. **Corinne Salou**, J Patrick A Fairclough, Anthony J Ryan
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

Section B

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
2:40— 597. Photochemistry of a side chain liquid crystalline polymer with a chiral tail. **S. N. Shah**, Charles E. Hoyle, David Creed
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**
4:10— 600. Orientational Flipping and Flow Alignment of a Model Thermotropic Liquid Crystalline Polymer. **Julia A. Kornfield**, Weijun Zhou, Victor M. Ugaz, Wesley R. Burghardt
4:35— 601. Molecular Dynamics of liquid-crystalline copolymethacrylates containing cholesterol as mesogenic groups. **Andreas Schoenhals**, Dietmar Wolff, Steffen Weidner, Juergen Springer

Section C

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
2:35— 604. The Design of Polymers for Use in Light-Emitting Diodes. **Mary Galvin**, Zhonghua Peng, Zukhra Niazimbetova, Anoop Menon, Subramanian Vaidyanathan
3:00— 605. Development of novel polymers for single layer light-emitting diodes. **Zhonghua Peng**, Bubin Xu

3:25—Intermission
3:45— 606. Building The Toolbox of Electron Rich Electrochromic And Conducting Polymers. **John R. Reynolds**, Jacek Brzezinski, C. J. DuBois, Irina Giurgiu, Leroy Kloeppner, Michael B. Ramey, Philippe Schottland, Christopher A. Thomas, Barbara M. Tsuie, Dean M. Welsh, Kyukwan Zong
4:10— 607. Tunable multicolor electroluminescent polymer devices for full color displays. Samson A Jenekhe, Xuejun Zhang
4:35— 608. Approaches to organic light-emitters via layer-by-layer self-assembly. **Tobin J Marks**, Ji Cui, Joshua E. Malinsky, Qingwu Wang, Ghassan E. Jabbour, Sean E. Shaheen, Jeffrey D. Anderson, Paul A. Lee, Andrew G. Richter, Bernard Kippelen, Pulak Dutta, Nasser Peyghambarian, Neal R. Armstrong

Section D

Optical Polymers: Advances in Optical Fibers and Waveguides
J. Harmon, *Organizer, Presiding*
G. K. Noren, *Organizer*
1:30— 609. Fluorinated methacrylic and vinylic 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
2:30— 611. Permanent protective coatings for optical fibers. **Christopher B. Walker**, James C. Novack, Todd P. Berger
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**
4:00— 614. Hard polymer cladding: nearing two decades of performance. **Bolesh, J. Skutnik**

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Chemistry of Fullerenes and Related Carbon Nanostructures
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THURSDAY MORNING

Section A

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
8:25— 616. The effect of solvent on the course of acrylate polymerizations mediated by cobaloxime and the development of novel initiating systems and novel multifunctional macromonomers. **Anne K. Shim**, H. James Harwood

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**
9:25— 619. Synthesis of Perfect Graft-Copolyethers by Ionic and ADMET Mechanisms. **Patrick M. O'Donnell**, Krystyna Brzezinska, Kenneth B. Wagener
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**
10:25— 622. Characterization of comb-shaped polymers using GPC-multidetection methods. **Wolfgang Radke**, Axel H.E. Mueller
10:45— 623. Graft copolymers containing silicone and vinyl polymer segments by free radical polymerization. **Daniel Graiver**, G. T. Decker, A. J. Tselepis, Fernando J. Hamilton, H. James Harwood
11:05— 624. Direct synthesis of polymer brushes. **Thomas A. P. Seery**, Preeti Dhar, Dale L. Huber, Fatma Vatansever

Section B

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
11:05— 630. Physical Properties of Main Chain Rigid Rod Epoxy Resins. **W-F. A. Su**, K.C. Chen, S.Y. Tseng
11:30— 631. Isothermal degradation of a novel liquid crystalline thermoset. **Elliot P. Douglas**, Tonya Bervaldi, Arthur J. Gavrin

Section C

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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THURSDAY AFTERNOON

Section A

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
2:30— 640. Equilibrium chain folding in semi-crystalline block copolymers in the bulk and in thin films. **J.Patrick A. Fairclough**, Shaomin Mai, Simon Turner, Ian W. Hamley, Kyriakos Viras, Nicholas J. Terrill, Colin Booth, Anthony J. Ryan
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
3:45— 642. Functionalized Block Copolymers: Synthesis, Structure and Dynamics. George Floudas, **Stergios Pispas**, 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
4:25— 644. Synthesis and solution properties of fluorine-containing block copolymers. **Z.B. Zhang**, **S.K. Ying**, Q.H Hu, Z.Q. Shi
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

Section B

Polymers and Liquid Crystals
Polymer Dispersed Liquid Crystals
C. Bowman, *Organizer*
T. Long, *Organizer, Presiding*
H-W. Schmidt, *Organizer*
2:00— 647. Growth dynamics of reflective PDLC gratings. **Timothy J. Bunning**, Robert T. Pogue, Lalgudi V. Natarajan, Vincent P. Tondiglia, Richard L. Sutherland
2:40— 648. Kinetics of formation and electro-optic properties of polymer dispersed liquid crystal (PDLC) networks made from maleimide/vinyl ethers. Charles E. Hoyle, **Molly Hladik**, Joe B. Whitehead, Wenfeng Kuang
3:05— 649. Fluorinated polymer dispersed liquid crystals: electro-optical and morphological properties. Michael D. Schulte, Stephen J. Clarson, Lalgudi V. Natarajan, Timothy J. Bunning
3:30—Intermission
3:45— 650. Characterization of binary eutectic liquid crystalline mixtures. **Nicole L. Gill**, Joe B. Whitehead, Niekiletta Woullard
4:10— 651. Smectic Layering in Nematic Liquid Crystals due to Immiscible Hydrocarbon-Fluorocarbon Segments. **Aaron C. Small**, Diana K. Hunt, Coleen Pugh
4:35— 652. Phase segregation in polystyrene - liquid crystalline siloxane block copolymers. **Aaron J Moment**, Paula T Hammond

Section C

Optical Polymers: Advances in Optical Fibers and Waveguides
J. Harmon, *Organizer*
G. K. Noren, *Organizer, Presiding*
1:30— 653. Synthesis and characterization of high refractive index optically clear poly(arylene ether) phenylphosphineoxide homo- and copolymers. James E. McGrath, Sue J. Mecham, Michael Hickner, Sheng Wang, H.B. Shobha, Yoshiyuki Oishi, M. Sankarapandian
2:00— 654. Perfluorocyclobutane (PFCB) Polymers for Optical Fibers and Dielectric Waveguides. H Shah, A. Hoeglund, **D. W. Smith**, M. Radler, C. Langhoff
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**

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