

2005 Fall meeting

2005 Fall NATIONAL ACS MEETING

Washington, DC (August 28-Sept. 1, 2005)

Program Meeting Chair: [Allan Guymon](#)

Deadline for Abstracts and Polymer Preprints: April 25, 2005.*

*for general papers and some symposia (some symposium organizers may set an earlier deadline).

Polymers and Materials for Defense against Chemical and Biological Warfare Agent

G. E. Lawson, Chemical/Biological Defense Center, Naval Surface Warfare Division, Code 54, Building 1480, Dahlgren, VA 22448, 540-284-0616, fax 540-653-8223, e-mail: glenn.lawson@navy.mil; J. G. Reynolds, Forensic Science Center, Lawrence Livermore National Laboratory, University of California, P. O. Box 808, L-178, Livermore, CA 94551, 925-422-6028, fax 925-423-9014, e-mail: reynolds3@llnl.gov

Advances in Polymer Brushes

W. J. Brittain, Department of Polymer Science, University of Akron, Akron, OH 44325, 330-972-5147, e-mail: brittain@polymer.uakron.edu; S. Boyes, Department of Polymer Science, University of Southern Mississippi, Hattiesburg, MS 39406-0076, 601-266-4868, e-mail: Stephen.boyes@usm.edu; D. J. Dyer, Department of Chemistry, Southern Illinois University, Carbondale, IL 62901-4409, 618-453-2897, fax 618-453-6408, e-mail: ddyer@chem.siu.edu

Cosmetic Nanotechnology: Polymers and Colloids in Personal Care

K. O. Havelka, Applications Technology Group, Lubrizol Corp, 29400 Lakeland Blvd., Wickliffe, OH 44092, 440-347-6088, fax 440-347-6986, e-mail: koh@lubrizol.com; S. E. Morgan, Department of Polymer Science, University of Southern Mississippi, Box 10076, Hattiesburg, MS 39406, 601-266-5296, fax 601-266-5635, e-mail: sarah.morgan@usm.edu

Controlled/Living Radical Polymerizations

Kris Matyjaszewski, Department of Chemistry, Carnegie Mellon University Pittsburgh, 4400 Fifth Avenue, Pittsburgh, PA 15213, km3b+@andrew.cmu.edu, Phone: 412-268-3209 (Fax: 214-268-6897)

Defects in Polymer Nanostructures

A. Karim, Polymers Division, National Institute of Standards and Technology, 100 Bureau Drive, Stop 8542, Gaithersburg, MD 20899, 301-975-6488, fax 301-975-6924, e-mail: alamgir.karim@nist.gov; E. J. Amis, Polymers Division, NIST, 100 Bureau Drive MS 8540, Gaithersburg, MD 20899, 301-975-6681, fax 301-975-4252, e-mail: eric.amis@nist.gov; U. B. Wiesner, Department of Materials Science and Engineering, Cornell University, 329 Bard Hall, Ithaca, NY 14853, 607-255-3487, fax 607-255-2365, e-mail: ubw1@cornell.edu; T. P. Russell, Department of Polymer Science and Engineering, University of Massachusetts, 120 Governors Drive, Amherst, MA 01003, 413-545-2680, fax 413-545-0421, e-mail: russell@mail.pse.umass.edu

Fluorine Containing Polymers

D. W. Smith Jr., Department of Chemistry, Clemson University, Howard L. Hunter Laboratories, Clemson, SC 29634, 864-656-5020, fax 864-656-6613, e-mail: dwsmith@clemson.edu Dr. William Coggio, 3M Corp., Dr. Bruno Ameduri, CNRS Montpellier, France, Prof. Ken Wynne, VCU.

Molecular Recognition Using Polymers

S. Thayumanavan, Department of Chemistry, University of Massachusetts, 701 Lederle Graduate Research Tower, 710 North Pleasant St., Amherst, MA 01003-9336, 413-545-1313, fax 413-545-4490, e-mail: thai@chem.umass.edu; V. Rotello, Department of Chemistry, University of Massachusetts, Amherst, MA 01003, 413-545-2058, e-mail: rotello@chem.umass.edu

Polymers for Bioactive Surfaces

J. G. Linhardt, Bausch & Lomb, 1400 N. Goodman Street, Rochester, NY 14603, 585-338-5256, fax 585-338-0042, e-mail: Jeffrey_Linhardt@bausch.com; J. C. M. van Hest, Department of Organic Chemistry, Nijmegen University, Toernooiveld 1, 6525 ED Nijmegen, Netherlands, +31-24 365 3204, fax +31 24 365 3393, e-mail: vanhest@sci.kun.nl; K. L. Kiick, Department of Materials Science and Engineering, University of Delaware, 201 DuPont Hall, Newark, DE 19716, 302-831-

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0201, fax 302-831-4545, e-mail: kiick@udel.edu; G. N. Tew, Department of Polymer Science and Engineering, University of Massachusetts, 120 Governor Dr, Amherst, MA 01003, 413-577-1612, fax 413-545-0082, e-mail: tew@mail.pse.umass.edu

General Papers: Polymers in Nanotechnology; Polymers and Biology; Synthesis and Characterization

D. Garcia, Arkema Inc., 900 First Avenue, King of Prussia, PA 19406, 610-878-6731, e-mail: dana.garcia@arkemagroup.com

Herman Mark Award

DIVISION OF POLYMER CHEMISTRY

Final Program, 230th ACS National Meeting, in Washington, DC, Aug 28-Sept 1, 2005

C. A. Guymon, *Program Chair*

SUNDAY MORNING

Unknown Site -- Unknown Room

Section A

Controlled/Living Radical Polymerizations

Tutorial-Dedicated to Hanns Fischer

Cosponsored with PMSE

T. Fukuda, *Presiding*

K. Matyjaszewski, *Organizer, Presiding*

8:50 — Introductory Remarks.

9:00 —1. Current status of controlled/living radical polymerization. **K. Matyjaszewski**

9:45 —2. Quantum-chemical tools for understanding and controlling free-radical polymerization. **M. L. Coote**, E. I. Izgorodina

10:30 — Intermission.

10:40 —3. Recent studies into initiation, propagation, and termination steps of radical polymerization. **M. Buback**

11:25 —4. Surface-initiated living radical polymerization and concentrated polymer brushes: Their unique and striking properties. **T. Fukuda**, Y. Tsujii, K. Ohno, A. Goto

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Section B

Polymers and Materials for Defense against Chemical and Biological Warfare Agents

Chemical

G. E. Lawson and J. G. Reynolds, *Organizers*

8:30 — Introductory Remarks.

8:40 —5. Polymer gels with broad temperature performance. **J. L. Lenhart**, P. J. Cole

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9:05 —6. Synthesis of pyrazine and aminopyrazine containing conjugated polymers for neurotoxin detection. **J. Thomas**, L. Jarabak, K. Levine

9:30 —7. Polyester-poly(methacrylic acid) nanocomposite membranes as breathable barriers. **H. Chen**, G. R. Palmese, Y. A. Elabd

9:55 — Intermission.

10:10 —8. Decomposition of organic compounds in aqueous dispersions of polymer latexes. **W. T. Ford**

10:35 —9. Carbosilane polymers with hydrogen bond acidic functionalization for chemical sensor applications. **D. L. Simonson**, E. J. Houser, J. L. Stepnowski, S. V. Stepnowski, R. A. McGill

11:00 —10. Fluorescence quenching of poly(iptycene butadiynylene)s by nitroaromatic explosives. **D. Zhao**, T. M. Swager

Section C

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Advances in Polymer Brushes

Dynamic and Patterned Polymer Brushes

W. J. Brittain and D. J. Dyer, *Organizers*

S. Boyes, *Organizer, Presiding*

8:30 — Introductory Remarks.

8:35 —11. The use of polymer brushes to control permeability. N. Ayres, A. Constable, A. Granville, **W. J. Brittain**

9:00 —12. Orthogonal polymer brush gradients: Formation and applications. M. R. Tomlinson, R. R. Bhat, **J. Genzer**

9:25 —13. Patterned polymer brushes from molded polymer surfaces. T. A. von Werne, M. Beinhoff, E. C. Hagberg, S. B. Jhaveri, D. Y. Sogah, C. J. Hawker, **K. R. Carter**

9:50 —14. Progress in fabrication and characterization of nanopatterned polymer brushes. W -K. Lee, M. Kaholek, S -J. Ahn, M. Patra, P. Linse, **S. Zauscher**

10:15 — Intermission.

10:25 —15. Application of ATRP to the synthesis of polymeric brushes. **K. Matyjaszewski**

10:50 —16. Cross-linked, crystalline, and controlled density polymer brushes grown from gold surfaces. **G. L. Baker**, Z. Bao, Y. Zheng, M. L. Bruening

11:15 —17. Telechelic polymer velcros or brushes: Synthesis, characterization, and adsorption studies. D. L. Patton, J. Y. Park, M. Liu, **R. C. Advincula**, J. W. Mays, M. D. Dadmun, S. M. Kilbey II, G. D. Smith

11:40 —18. Fluorinated surfactants as stimuli-responsive polymers and brushes. **J. A. Howarter**, J. P. Youngblood

Section D

Unknown Site -- Unknown Room

Molecular Recognition Using Polymers

V. M. Rotello, *Organizer*

S. Thayumanavan, *Organizer, Presiding*

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8:30 — Introductory Remarks.

8:35 —19. Multiple hydrogen bonding in polymeric fibers elastomers, and surfaces. **T. E. Long**, B. D. Mather, C. L. Elkins, M. G. McKee, K. Viswanathan

9:05 —20. Molecular mechanisms in dynamically crosslinked polymers. D. M. Loveless, S. L. Jeon, W. C. Yount, **S. L. Craig**

9:35 —21. Molecular zippers for preparing supramolecular and dynamic covalent block copolymers. **B. Gong**, X. Yang, W. Kim, C. Y. Ryu

10:05 —22. Biomimetic modular multi-domain polymers: New peptidomimetic beta-sheet modules with varying hydrogen bonding strength. J. Roland, **Z. Guan**

10:35 — Intermission.

10:50 —23. Structure-property relationships in supramolecular polymers chemistry. **S. C. Zimmerman**, T. Park

11:20 —24. Recognition mediated self-assembly of polymers: Microspheres and polymersomes. **V. M. Rotello**

11:50 —25. Non-covalently functionalized copolymers. C. Burd, M. N. Higley, K. P. Nair, C. R. South, **M. Weck**

12:20 — Conclusion of Session.

12:40 — Introductory Remarks.

Section E

Unknown Site -- Unknown Room

General Papers: Polymers in Nanotechnology

D. Garcia, *Organizer*

L. E. Euliss, *Presiding*

8:00 —26. Conjugated polymers and nanoscience. V. Seshadri, B. Lee, M. Marquez, **G. A. Sozning**, S -Y. Jang

8:20 —27. AEI: Functional nanoporous materials from an ABC triblock copolymer precursor. **J. Rzayev**, M. A. Hillmyer

8:40 —28. Controlling and visualization of self-assembly of block copolymers with crystalline segments. **W. Wu**, K. Matyjaszewski, T. Kowalewski

9:00 —29. Functionalized carbon nanotubes with visualizable degree of functionalization. **L. Li**, C. Li

9:20 —30. Monodisperse nanocarriers: Novel fabrication of polymeric nanoparticles for bionanotechnology. **L. E. Euliss**, B. W. Maynor, J. Rolland, J. M. Desimone

9:40 —31. POSS containing multiblock copolymers as model of well-defined organic-inorganic hybrid materials. **G. Cardoen**, J. W. Mays, S. P. Gido, T. P. Russell, X. Hu, D. Baskaran, E. B. Coughlin

10:00 —32. Preparation of crystalline polymer nanorods and their composites in carbon dioxide. **T. Kim**, T. J. McCarthy

10:20 —33. Preparation and characterization of single wall carbon nanotube-reinforced polycyanurate nanocomposites. **A. R. Hopkins**, R. Lipeles

10:40 —34. Toward small polymer objects with defined shape and chemistry. **Z. Lu**, T. J. McCarthy

11:00 —35. Blends of polystyrene and poly(caprolactone) at the air/water interface. **B. Li**, A. R. Esker

11:20 —36. Interplay between phase separation and dewetting in thin films of polymer/polyhedral oligomeric silsesquioxane (POSS) blends. **R. Paul**, M. C. Swift, A. R. Esker

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11:40 —37. Polymer-nanotube composites: A recipe to control dispersion. **A. Rasheed**, M. D. Dadmun, P. Britt, D. B. Geohegan, I. Ivanov

SUNDAY AFTERNOON

Section A

Unknown Site -- Unknown Room

Controlled/Living Radical Polymerizations

Mechanism ATRP

Cosponsored with PMSE

K. Matyjaszewski, *Organizer*

M. Sawamoto and R. Poli, *Presiding*

1:30 —38. Transition metal-catalyzed living radical polymerization toward functional materials. **M. Sawamoto**

2:00 —39. New mechanistic insights into ATRP using molybdenum coordination compounds. **R. Poli**, F. Stoffelbach, S. Maria

2:30 —40. Identification and characterization of monoanionic tripodal tetradentate ligand complexes of copper(I) and (II) involved in atom transfer radical polymerization. J. M. Goodwin, **T. E. Patten**, M. M. Olmstead

3:00 —41. Tuning the activity and performance of the catalyst in atom transfer radical polymerization and general rules for catalyst selection. **N. V. Tsarevsky**, B. McKenzie, W. Tang, K. Matyjaszewski

3:30 — Intermission.

3:40 —42. Controlled radical polymerization of vinyl monomers catalyzed by ruthenium N-heterocyclic carbene complexes. **A. Demonceau**, S. Delfosse, A. Richel, Y. Borguet, L. Delaude, A. F. Noels

4:10 —43. Metal-catalyzed stereospecific living radical polymerization. **M. Kamigaito**, K. Satoh, Y. Okamoto

4:40 —44. Ionic liquid tethered catalyst for biphasic ATRP of MMA. S. Ding, H. Tang, M. Radosz, **Y. Shen**

Section B

Unknown Site -- Unknown Room

Polymers and Materials for Defense against Chemical and Biological Warfare Agents

Biological/Decontamination and Protection

G. E. Lawson and J. G. Reynolds, *Organizers*

1:30 — Introductory Remarks.

1:40 —45. The design of potent polyvalent inhibitors of anthrax toxin. K. Gujraty, P. Rai, A. Joshi, J. Mogridge, **R. S. Kane**

2:05 —46. Polymeric substrates for high-throughput separation and concentration of biological agents. **B. A. Simmons**, Y. Fintschenko, E. B. Cummings, R. Davalos, G. J. Fiechtner, G. McGraw

2:30 —47. Glycoconjugates for recognition and inhibition of biological agents. **O. Tarasenko**, S. Islam, D. Paquiot, P. Alusta, K. Levon

2:55 — Intermission.

3:10 —48. Coupled diffusion in biochemical protective suits. **J. R. Dorgan**

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3:35 —49. Applications of nanocrystals embedded in aromatic-containing polymers in radiation detection. **S. Dai**, S. S. Brown, B. Kesanli, A. J. Rondinone

4:00 —50. Triosyn technology for defense against chemical and biological agents. **D. Ohayon**, K. Low, S. Bourget, J. Tanelli, P. J. Messier

4:25 — Concluding Remarks.

Section C

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Advances in Polymer Brushes

Binary Polymer Brush Systems

S. G. Boyes and D. J. Dyer, *Organizers*

W. J. Brittain, *Organizer, Presiding*

1:30 — Introductory Remarks.

1:35 —51. Switching response in mixed polymer brush films. **D. J. Dyer**, J. Feng

2:00 —52. Amphiphilic mixed homopolymer brushes on silica nanoparticles synthesized by "living"/controlled radical polymerization techniques. D. Li, X. Sheng, **B. Zhao**

2:25 —53. Mechanism of phase segregation in mixed polymer brushes. **S. Minko**, D. Usov, M. Stamm

2:50 —54. Nanoprobng of mono- and binary polymer brushes. **V. Tsukruk**

3:15 — Intermission.

3:25 —55. Segregated binary polymer brushes. **I. Luzinov**, Y. Liu, V. Klep

3:50 —56. Internal and interface structure in diblock copolymer brushes synthesized by ATRP. **M. D. Foster**, B. Akgun, W. J. Brittain, X. Li, J. Wang, C. F. Majkrzak

4:15 —57. Combinatorial polymer brushes formed by temperature-responsive polymers with tunable onset of response. **E. Manias**, M. Rackaitis, T. M. D. Foley, K. Efimenko, J. Genzer

4:40 —58. Self-assembly of alkylammonium chains on montmorillonite: Effect of chain length, head group structure, and cation exchange capacity. **H. Heinz**, R. Vaia, B. L. Farmer

Section D

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Molecular Recognition Using Polymers

S. Thayumanavan, *Organizer*

V. M. Rotello, *Organizer, Presiding*

1:30 —59. Targeted worm-like Micelles. **D. E. Discher**, P. Dalhaimer, A. J. Engler, R. Parthasarthy

2:00 —60. Environment dependent assemblies from amphiphilic homopolymers. **S. Thayumanavan**

2:30 —61. Peptide nucleic acid-decorated shell crosslinked nanoparticles and their intracellularly-directed molecular recognition in vitro and in vivo. **K. L. Wooley**, J. L. Turner, M. L. Becker, X. Li, R. Rossin, X. Sun, J.-S. A. Taylor, M. J. Welch

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3:00 —62. Charge pattern recognition in interaction between polyelectrolytes and oppositely charged colloids. **A. B. Kayitmazer**, C. Cooper, A. Goulding, P. L. Dubin

3:30 — Intermission.

3:50 —63. Supramolecular assemblies based on Y-shaped amphiphiles. **E. R. Zubarev**

4:20 —64. Supramolecular polymeric materials using carbon dioxide. **D. M. Rudkevich**, H. Xu, G. A. Woldemariam

4:40 —65. Complementary quadruple hydrogen bonding for supramolecular architectures. **G. B. W. L. Ligthart**, H. Ohkawa, R. P. Sijbesma, E. W. Meijer

Section E

Unknown Site -- Unknown Room

General Papers: Polymers in Nanotechnology

D. Garcia, *Organizer*

B. A. Van Horn, *Presiding*

1:00 —66. Synthesis and characterization of an amphiphilic poly(acrylic acid)-lipid conjugate. **D. N. T. Hay**, P. G. Rickert, M. A. Firestone

1:20 —67. Morphology and micromechanical properties of multilayered PET/PC composites. **R. Adhikari**, V. Seydewitz, K. Loeschner, R. Godehardt, W. Lebek, G. H. Michler, A. Hiltner, E. Baer

1:40 —68. Block copolymer-templated size and shape-controlled synthesis of metal nanoparticles. **T. Sakai**, P. Alexandridis

2:00 —69. Influence of liquid crystalline order on photoinitiation efficiency and polymerization behavior. **M. A. DePierro**, C. A. Guymon

2:20 —70. Dyeability improvement of silk with chitosan nanoparticles. **Z -G. Hu**, W. Chan, Y -S. Szeto

2:40 —71. Dynamics of multifunctional polyhedral oligomeric silsesquioxane/poly (propylene oxide) nanocomposites as studied by dielectric relaxation spectroscopy. **Y. Bian**, J. Mijovic

3:00 —72. Protein-nanoparticle assembly through protein surface recognition. **S. Srivastava**, A. Verma, B. L. Frankamp, V. M. Rotello

3:20 —73. Decorating nanometer-scale fibers with multiple hydrogen bonding and electrostatic interactions. **M. G. McKee**, J. Layman, M. T. Hunley, T. E. Long

3:40 —74. Polypyrrole nano-networks and nano-arrays. **M. Acik**, C. Baristiran, G. Sonmez

4:00 —75. Synthesis and characterization of degradable poly(ester) materials crosslinked through reductive amination chemistry. **B. A. Van Horn**, G. O. Brown, K. L. Wooley

4:20 —76. Synthesis of nanostructured and porous hydrogels using aqueous solutions of PCL-PEO-PCL triblock copolymers. **J. Kang**, K. J. Beers

4:40 —77. Ethylene-propylene-POSS elastomers. **B. Seurer**, E. B. Coughlin

SUNDAY EVENING

Section A

Unknown Site -- Unknown Room

2005 Fall meeting

General Papers: Polymers and Biology

D. Garcia, *Organizer*

6:00 - 8:00

78. Light triggered self-assembly of peptides into hydrogels. **L. A. Haines**, K. Rajagopal, B. Ozbas, J. P. Schneider, D. J. Pochan

79. Degradable core-shell nanogels for controlled delivery of cisplatin. **Y. Shen**, W. Jin, Y. Zhan, L. Liu, M. Radosz

80. Phospholipid tubules as encapsulation agents. **C. C. Garrett**, B. N. Thomas

81. Assessment of the biocompatibilities of branched and linear polyglycidol. **R. K. Kainthan**, J. Janzen, E. Levin, D. V. Devine, D. E. Brooks

82. X-ray structure analysis of novel regenerated cellulosic material prepared by an environmentally-friendly process. I. S. Kim, **Y. K. Kwon**

83. New trimer depolymerization pathway in the thermal degradation of polystyrene. **Y. Ishihara**, Y. Kodera, K. Saido, T. Kuroki

84. Removal of phenol compounds by the combined use of tyrosinase and chitosan. **K. Yamada**, Y. Akiba, T. Shibuya, A. Kashiwada, K. Matsuda, M. Hirata

85. Oligopeptides as antimicrobial agents in aqueous polymer systems. **A. M. Rhoades**, D. A. Wicks, J. Williamson, B. Miriyala

86. Synthesis and structure-activity relation in polyallylamine with pendant quaternary imidazolium groups as antibacterial agents. **S. Tandukar**, M. T. Belz, M. MacBride, B. R. Peterson, A. Sen

87. Synthesis and water-solubility of pegylated diphenylaminofluorenyl monoadduct of fullerene. **S. Verma**, P. A. Padmawar, T. Canteenwala, L. Y. Chiang

88. Spermine based poly(glycoamidoamine)s as DNA delivery vectors. **Y. Liu**, T. M. Reineke

89. Fluorinated polyphosphazene polyelectrolytes. **A. K. Andrianov**, A. Marin, P. Peterson, J. Chen

90. Novel biodegradable polyphosphazenes containing pyrrolidone side groups. **A. K. Andrianov**, A. Marin, P. Peterson

91. Kevlar humidity degradation: Oxidative vs. inert atmosphere aging. **R. Bernstein**, D. K. Derzon, M. M. Shedd

92. Study on the properties of immobilized cellulase for chitosan hydrolyze. **F. Tao**, D. Yumin, L. Jin, S. Liping

93. Effect of molecular weight and degree of deacetylation on the degradation of chitosan by a commercial enzyme. L. Jin, **D. Yumin**

94. Preparation of immobilized neutral protease on chitosaneous beads and their properties, stability and application to hydrolysis of chitosan. **D. Yumin**, L. Jin, F. Tao

95. A new route to preparation of esterified Konjac Glucomannan by a lipase-catalyzed reaction in organic solvents. **R. Ding**, G. Li, Z. Chen, M. Zong

96. Lipase-catalyzed acylation of konjac glucomannan in a solvent-free system. **Z. Chen**, M. Zong, G. Li, R. Ding

97. Moisture-absorption and moisture-retention abilities of novel water-soluble amphoteric chitosan derivative. **Y. Du**, L. Sun

Section B

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General Papers: Polymers in Nanotechnology

D. Garcia, *Organizer*

6:00 - 8:00

- 98.** Preparation of ultrahydrophobic surfaces using an anodized aluminum oxide membrane as template and their conversion to ultrahydrophilic surfaces. **J. A. Lee**, T. J. McCarthy
- 99.** Preparation of ultrahydrophilic surfaces via oxidation reactions of silicon wafer-supported alkylsilane monolayers. **J. A. Lee**, T. J. McCarthy
- 100.** Surface modification of fluorosilane oligolayers on silicon wafers. **J. A. Lee**, T. J. McCarthy
- 101.** Synthesis and self-assembly of well-defined [60]fullerene end-capped stimuli-responsive sulfobetaine polymer in aqueous medium. **P. Ravi**, D. Sheng, T. K. Chiu
- 102.** Effect of mesoporous fillers on the compression and aging properties of experimental dental composites. **S. Praveen**, Z. Sun, J. Xu, R. Ranade, A. C. Patel, G. R. Baran, Y. Wei
- 103.** Fabrication of ordered arrays of copper nanorods using thin block copolymer templates. **I. Tokarev**, S. Minko, A. Sidorenko
- 104.** Novel hybrid polymeric materials incorporating carboranes. **Y. C. Simon**, E. B. Coughlin
- 105.** Polyethyleneterephthalate (PET) via in-situ polymerization of ethylene glycol containing functionalized carbon nanotube and terephthalic acid. H.-J. Lee, S.-J. Oh, J.-Y. Choi, J. W. Kim, J. Kim, L.-S. Tan, **J.-B. Baek**
- 106.** Quantum mechanical investigation for cage structure of (3-glycidoxypropyl)trimethoxysilane. Q. Nie, **L. Hu**
- 107.** Rational fabrication of polymeric nanostructures using pattern replication in non-wetting templates (PRINT). **B. W. Maynor**, L. E. Euliss, J. Rolland, J. M. DeSimone
- 108.** Surface glass transition temperature of polyhedral oligomeric silsesquioxane (POSS) filled poly(t-butyl acrylate) films. **U. Karabiyik**, S. K. Satija, A. R. Esker
- 109.** Hyperbranched polyol/carbon nanofiber composites. **B. A. Higgins**, Y. Xu, W. J. Brittain
- 110.** Ordered nanoporous polystyrene from polystyrene-poly(ethylene oxide) and polystyrene-poly lactide block copolymers using a HI etching method. **H. Mao**, M. A. Hillmyer
- 111.** Switchable reflective displays formed from holographic polymer-dispersed liquid crystals (HPDLC). **T. Ye**, X. Tao, Y. Szeto, H. Yuan
- 112.** Structure and morphology of nanosilica/poly(acrylate) hybrid latexes. **L. Chen, S. Chen**, Y. Gu
- 113.** Formation of polymer nanofibers facilitated by the self-assembly of template pre-organized oligopeptides. **H. G. Börner**, D. Eckhardt
- 114.** Single wall carbon nanotube copolypeptide bionanocomposites for potential aerospace applications. **C. Lovell**, E. Worthington, T. J. Deming, G. D. Stucky, J. Kang, K. E. Wise, J. S. Harrison, J. M. Fitz-Gerald, C. Park
- 115.** Effect of in-situ synthesis of precursor oligomers on exfoliation of clay in radiation cured nanocomposites. **N. Ravindran**, D. C. Webster
- 116.** Fabrication of PU/ TiO₂-SiO₂ hybrid films. C. Feng, **S. Chen**, L. Chen
- 117.** From peptide nanospheres to nanorods at interfaces. I. A. Banerjee, **R. L. Spear**
- 118.** Grafting of hyperbranched polyetherketones onto multi-walled carbon nanotubes via A₃ + B₂ approach. J.-Y. Choi, D. H. Wang, **L. S. Tan, J.-B. Baek**

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- 119.** Preparation and characterization of poly(methyl methacrylate-co-2-hydroxyethyl methacrylate) mica nanocomposites via soap-free emulsion polymerization. **H -Y. Cheng**, C -H. Cheng, J -Y. Hung Jr., G. J. Jiang Sr.
- 120.** Hyperbranched ferrocene-containing poly(arylene)s as photoresists and precursors to magnetic ceramics with nanoparticles. H. Dong, J. W. Y. Lam, M. Häußler, A. J. Qin, R. Zheng, **B. Z. Tang**
- 121.** Preparation of PET/chitosan nanofibrous scaffolds and their antibacterial activities. **I -K. Kang**, K -H. Jung, W -S. Kim, M -W. Huh
- 122.** Synthesis and study of Mg(OH)₂/polyolefin nanocomposite. **M -J. Chang**, G. J. Jiang Sr., W -T. Yang, G -H. Lai, Y -J. Li
- 123.** Synthesis of functionalized CdS nanocrystals and CdS/PU hybrid nanocomposites. Y. F. Shen, **S. Chen**, L. Chen
- 124.** Thermal radical addition of polyarylenes to C60. **M. W. Perpall**, A. Rettenbacher, L. Echegoyen, D. W. Smith Jr.
- 125.** Ultra low-k polysilsesquioxane films using T8(Me4NO)8 as porogen. K. Xi, H. He, J. Cai, X. Jia, **X. Yu**
- 126.** New chitosan/silver oxide nanocomposite and its antibacterial activity in cotton fabrics. **Z -G. Hu**, W. Chan, K. W. Chan, Y -S. Szeto
- 127.** Self-assembled Gold/PAMAM nanocomposites with controlled plasmon resonance. **S. Srivastava**, B. L. Frankamp, V. M. Rotello
- 128.** Electrospun nanofiber of multi-walled carbon nanotube and poly(methyl methacrylate) composites. H. S. Kim, J. H. Sung, H. J. Choi, I -J. Chin, **H -J. Jin**
- 129.** Surface morphology of electrospun fibers and beads from non-volatile solutions. M. Kang, S. H. Yoon, **H -J. Jin**
- 130.** Functionalized siloxane polymers for nanomaterial synthesis. **M. K. Kolel-Veetil**, T. M. Keller
- 131.** Percolation thresholds of electrical conductivity and rheology in the multi-walled carbon nanotubes filled poly(ethylene terephthalate) nanocomposites. G. Hu, S. Zhang, M. Yang, **Z. Wang**
- 132.** Novel functional polymers for unconventional applications in advanced nanotechnology. **K. M. Choi**, J. A. Rogers
- 133.** Connecting supramolecular receptors onto block-co-copolymers: combining metathesis polymerization with 1,3-dipolar cycloadditions. **C. Kluger**, W. H. Binder
- 134.** Directed assembly of Au-nanoparticles onto planar surfaces mediated by multiple hydrogen bonds. R. Zirbs, F. Kienberger, P. Hinterdorfer, **W. H. Binder**

Section C

Unknown Site -- Unknown Room

General Papers: Synthesis and Characterization

D. Garcia, *Organizer*

6:00 - 8:00

- 135.** Enzymatic synthesis and characterization of unsaturated polyesters. **R. Kumar**, A. K. Sharma, T. C. Canteenwala, V. S. Parmar, J. Kumar, A. C. Watterson
- 136.** Investigation of photoactive keto-acid and ester agents for use in dimethacrylate-based dental resins. **J. Feng**, H. Despres, R. E. Partch
- 137.** Planar liquid-crystalline bisphenazines: Potential electron transport materials. **J. Hu**, D. Zhang, S. Z. D. Cheng, F. W. Harris, E. Eleman, D. A. Modarelli
- 138.** Prediction of creep behaviour of polystyrene. Q. Nie, **L. Hu**

2005 Fall meeting

- 139.** Emulsion polymerization routes to photocrosslinkable melt processible acrylonitrile terpolymer as carbon precursors for gas diffusion layer (GDL). **H. Johnson**, T. Mukundan, V. A. Bhanu, D. G. Baird, J. E. McGrath
- 140.** Iron as a protecting group in the synthesis of iron tris(dibenzoylmethane)-centered polycaprolactone stars and their component macroligands. **J. Chen**, J. L. Gorczynski, C. L. Fraser
- 141.** Fast living cationic polymerization of vinyl ethers using FeCl₃. **A. Kanazawa**, T. Yoshida, S. Kanaoka, S. Aoshima
- 142.** Polycarbonate of a bisphenol A analogue having three aryl rings. **T. S. Filipova**, D. Boyles, J. T. Reams
- 143.** Synthesis of cross-linkable cycloliner poly(carbosilane)-g-poly(styrene) copolymers. **J. Hyun**, K. Oh, C. Y. Ryu, L. V. Interrante
- 144.** Alcohol adducts of N-heterocyclic carbenes as single-component catalyst/initiators for ring-opening polymerization of lactide. **D. A. Culkin**, S. Csihony, A. C. Sentman, A. P. Dove, R. M. Waymouth, J. L. Hedrick
- 145.** Emulsion copolymerization of sec-butenyl acetate via styrene. **A. H. Alidedeoglu**, D. Sandipan, V. Flosenzier, J. W. Rawlins, A. J. O'Lenick Jr.
- 146.** Evolution of structure and molecular weight averages during the synthesis of glycerol containing polyesters by direct polycondensation. **A. S. Kulshrestha**, J. Hu, W. Gao, R. A. Gross
- 147.** Novel aromatic polycarbonates blends. **T. S. Filipova**, D. Boyles, J. T. Bendler
- 148.** Synthesis and characterization of multiblock copolymers of methylene and 9,9-dialkylfluorene. **J. E. Copenhafer**, T. Y. Meyer
- 149.** Synthesis and characterization of poly 2-phenyl-5-(4-vinylphenyl)-1,3,4-oxadiazole using atom transfer radical polymerization. **J. Shen**, T. E. Hogen-Esch
- 150.** Synthesis of regiospecific poly(3-substituted-thiophenes) using Ni-diimine-initiated cross-coupling polymerization. **E. E. Sheina**, M. C. Iovu, R. D. McCullough
- 151.** Synthesis, characterization and sensitivity studies for a TNT-sensing polymer. **D. Piao**, L. Takiff, E. D'urso, K. Mulherin, C. Wichert, W. McDaniel, B. Wegley, R. Deans, K. Paul, M. Fisher, L. F. Hancock
- 152.** Esterification of cellulose using recyclable polymeric catalysts. **J. Luo, Y. Sun**
- 153.** Synthesis of phosphonium-based acrylic ionomers. **S. Unal**, C. M. Palmer, T. E. Long
- 154.** Conjugated polymers from thieno[3,4-b]thiophene dimers. B. Lee, **M. S. Yavuz**, G. A. Sotzing
- 155.** Lipase-catalyzed direct route to linear aliphatic copolyesters of bis(hydroxymethyl)butyric acid with pendant carboxylic acid groups. **A. S. Kulshrestha**, B. Sahoo, H. Fu, W. Gao, R. A. Gross
- 156.** Preparation and polymerization of 1-[2'-(heptaphenylcyclotetrasiloxanyl)ethyl]-1,3,3,5,5-pentamethylcyclotrisiloxane. **T. M. Gädda**, W. P. Weber
- 157.** Suspension polymerization of thieno[3,4-b]thiophene in water to produce low band gap conjugated polymers. **B. Lee**, V. Seshadri, G. A. Sotzing
- 158.** Synthesis and polymerization of a novel amphiphilic lactide monomer. **X. Jiang**, J. M. Horton, G. L. Baker, M. R. Smith III
- 159.** Precision synthesis of poly(vinyl ether)s with cholesteryl or biphenyl groups. **A. Date**, S. Kanaoka, T. Kato, S. Aoshima
- 160.** Design and precision synthesis of pH-responsive polymers with high sensitivity by fast living cationic polymerization. **T. Tsujino**, S. Kanaoka, S. Aoshima

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- 161.** Synthesis of new thermo-responsive poly(acrylamides) and their sol-gel phase transition behaviors in aromatic solvents. Y. K. Han, M. K. Lee, **H. W. Kim**, B. K. Cho
- 162.** Preparation and properties of *alt*-copoly(1,9-decaphenylpentasiloxanylene/1,3-bis(ethylene)oligodimethylsiloxanylene)s. **N. S. Lee**, T. M. Gädda, W. P. Weber
- 163.** Synthesis of phase selectively soluble libraries of poly(*N*-alkylacrylamide) copolymers. **D. Ortiz-Acosta**, D. Bergbreiter
- 164.** Living cationic polymerization of vinyl ethers in a continuous flow system with micromixers. **M. Ouchi**, N. Inagaki, T. Ando, M. Sawamoto
- 165.** Oxidative coupling polymerization of o-cresol with a copper-amine catalyst immobilized within the interior of SBA-15. **M. Nakamura**, Y. Shibasaki, J. N. Kondo, M. Ueda
- 166.** Synthesis and alignment of a liquid-crystalline polymethacrylate bearing a photoreactive 4-styrylpyridine derivative and benzoate group in the same side chain. **W.-S. Kim**, M.-W. Kim, J.-Y. Kong, S.-H. Hyun, I.-K. Kang
- 167.** Synthesis and characterization of a novel whole-body heparinized polyethersulfone. **C. Hou**, D. Huo, W. Zhang, S. Zheng, Y. Ren, B. Chen
- 168.** Synthesis of 2,7-dibromofluorene-labeled macromonomers utilizing a variation of reverse atom transfer radical polymerization. **B. Ludwig**, E. S. Tillman
- 169.** Synthesis of cyclotriphosphazene functionalized polyoctenamers via ring-opening metathesis polymerization of hydrophilic and hydrophobic monomers. **D. T. Welna**, D. A. Stone, H. R. Allcock
- 170.** Synthesis of polyisocyanate bearing crown ether via asymmetric polymerization with chiral initiator. R. Sakai, **T. Satoh**, I. Otsuka, R. Kakuchi, H. Kaga, T. Kakuchi
- 171.** Living cationic polymerization of p-methylstyrene using SnCl₄ in dichloromethane and determination of absolute rate constant of propagation. **P. De**, R. Faust
- 172.** Capping reactions in cationic polymerization: Kinetic and synthetic utility. **P. De**, R. Faust
- 173.** Comparative study of the chain dynamics of polymers containing peroxy linkages in the backbone. **P. De**
- 174.** Living cationic polymerization of tetrahydroindene and its block copolymer: A novel high T_g poly(cycloolefin). **K. Satoh**, N. Mizuno, M. Kamigaito, Y. Okamoto
- 175.** Synthesis of graft copolymers with well defined architectures: Application to the adhesion of polypropylene with PVDF. C. Boyer, B. Boutevin, J. J. Robin, **P. Lacroix-Desmazes**
- 176.** Synthesis of water-soluble polyacetylene having sugar residues. **J.-I. Kadokawa**, K. Tawa, Y. Kaneko, M. Tabata
- 177.** Characterization of cationic hydroxyethyl dextran derivatives using micro-batch mode multi-angle laser light scattering with spontaneous refractive index measurement. **W. Gao**, X. M. Liu, J. C. Salamone, G. Bousader, R. A. Gross
- 178.** In-situ polymerization of 6FDA and 1,3-bis(3-aminophenoxy)benzene in the presence of amine-functionalized vapor-grown carbon nanofibers. **D. H. Wang**, M. D. Houtz, J.-B. Baek, L.-S. Tan
- 179.** Electrochromic windows using a low band gap conjugated polymer as the ion storage layer. **V. Seshadri**, J. Filloramo, W. K. Mino, G. A. Sotzing
- 180.** Polymer degradation initiated via infectious species. **M. Celina**, R. L. Clough, G. Jones
- 181.** Pyrolysis GC-MS and transmission electron microscopy used to characterize annealing effects in UHMWPE. **R. D. Redfean**, T. A. Holm, C. W. Carlson, A. M. Viano, K. E. Spence, M. Shanks, M. A. Scott, A. K. Ray
- 182.** Synthesis and properties of partly substituted maleic anhydride B-CD and its metal complex. Y. Jiang, H. Zhang, H. Li, K. Zhang, D. Wang, Y. Xu, **J. Wang**

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- 183.** Rapid composition analysis of polyimide using methanol/water solution containing tetramethylammonium hydroxide. **N. Higeta**, N. Sato
- 184.** The effect of some parameters on the polymerization of St during the encapsulation of iron oxide particles via miniemulsion polymerization. **Q. Zhang**, G. Xie, H. Zhang
- 185.** Side-chain functionalized poly(norbornene)s containing terminal iridium coordination complexes. **J. R. Carlise**, X -Y. Wang, M. Weck
- 186.** Super low temperature photopolymerization of (meth)acrylate. **J. Nie**, B. Lv
- 187.** Synthesis and characterization of a novel polymer containing 1, 2, 3-triazole. **L. Wan**, Y. Luo, Y. Hu, F. Huang, L. Du
- 188.** Thermal and mechanical properties of gradient copolymers containing ethylene and 5-norbornen-2-yl acetate. **A. Hotta**, S. J. Diamanti, V. Khanna, G. C. Bazan, G. H. Fredrickson, E. J. Kramer
- 189.** Antimicrobial functions of N-chloro-hindered amines. Z. Chen, **Y. Sun**
- 190.** Analysis of branching in polyethylenimine. **J. E. Girard**, J. Gu, M. Konaklieva
- 191.** Multifunctional 2,7-fluorene and 2,5-dithienylsilole alternating copolymer: Synthesis, light emission, photovoltaic cell, and field effect transistor. **J. Chen**, Y. Cao
- 192.** Ionic liquids as solvents for biopolymers: Acylation of starch and zein protein. **A. Biswas**, R. L. Shogren, D. G. Stevenson, J. L. Willett, P. K. Bhowmik
- 193.** Hydrolytic degradation of comb-like polylactides. **J. M. Horton**, X. Jiang, G. L. Baker, M. R. Smith III
- 194.** Poly(thieno[3,4-b]furan), a new low band gap conjugated polymer. **A. Kumar**, G. A. Sotzing
- 195.** Preparation of luminescent discotic liquid crystal using simple hydrogen bonding. **J. W. Lee**, J. H. Lee, S. J. Lee, S. W. Lee, J. Y. Jho
- 196.** Substituted polylactides with increased glass transition temperature. **F. Jing**, M. R. Smith III, G. L. Baker
- 197.** Condition monitoring of oxidation in aged polymers via derivatization and ¹⁹F NMR spectroscopy. **J. M. Skutnik**, R. A. Assink, M. Celina
- 198.** Helix-helix transition for poly(phenylacetylene) bearing macromolecular ionophore via the host-guest complexation with metal cations. I. Otsuka, **T. Satoh**, R. Sakai, R. Kakuchi, H. Kaga, T. Kakuchi
- 199.** Microstructure and properties of bridged poly(silsesquioxane) copolymers. **E. S. Park**, H. W. Ro, J. H. Sim, D. Y. Yoon
- 200.** New class of oligomeric ferroelectric liquid crystals based on cyclic siloxanes. S. B. Park, T -Y. Cho, R. Zentel, J. Y. Chang, **D. Y. Yoon**
- 201.** Influences of intermolecular interactions on the formation of functional nanoscale fibers. **M. T. Hunley**, M. G. McKee, T. E. Long
- 202.** Photo-regulation of optical rotations in chiral polyesters: Modeling the impact of ethylene oxide main-chain damping segments. **G. D. Jaycox**
- 203.** Photo-regulation of optical rotations in chiral polyesters: Conformationally flexible analogues. **G. D. Jaycox**
- 204.** Urethane chain extended polyoxaesters: Potential injectable tissue engineering scaffolds. **A. S. Kulshrestha**, W. Laredo, T. Matalenas, T. Twaddle, K. L. Cooper, R. S. Bezwada
- 205.** Preparation of multi-phase polymer beads composed of block copolymer amphiphilic networks. **Y. Sun**, S. Rimmer
- 206.** Electrospun poly(L-lactic acid-co-succinic acid-co-1,4-butane diol) fibrous membranes. H. S. Kim, **H -J. Jin**, J. S. Yoon

2005 Fall meeting

207. Dental materials containing bile acid derivatives. **M. A. Gauthier**, I. Stangel, T. H. Ellis, J. X. Zhu
208. Evaluation of the performance of precipitation-redissolution chromatography for the determination of the molecular weight distribution of polymers. **S. Moyses**
209. Effect of molecular characteristics on elongational rheology of polyethylenes. **X. Wei**, J. R. Collier, S. Petrovan
210. Shearing rheology of polyethylene terephthalates with different amounts of additives. **X. Wei**
211. Material parameters estimation for the rheology to molecular weight distribution conversion of polyethylenes. **X. Wei**, J. R. Collier, S. Petrovan, P. Patil
212. Effect of molecular characteristics on shearing rheology of polyethylenes. **X. Wei**, J. R. Collier, S. Petrovan
213. Effects of temperature and Hencky strain on elongational rheology of polyethylenes. **X. Wei**, J. R. Collier, S. Petrovan
214. Elongational rheology of polyethylenes and polyisobutylene by different methods. **X. Wei**, J. R. Collier, S. Petrovan
215. Enthalpy and entropy changes of polyethylenes calculated from rheological data. **X. Wei**, J. R. Collier, S. Petrovan
216. Molecular weight determination of dissolving pulps using rheological method. **X. Wei**, J. R. Collier, S. Petrovan
217. Polyisobutylene and elongational rheology. **X. Wei**, J. R. Collier, S. Petrovan
218. Shearing rheology of polyisobutylene. **X. Wei**, J. R. Collier, S. Petrovan
219. Temperature shifting and Hencky strain shifting of elongational rheology of polyethylenes. **X. Wei**, J. R. Collier, S. Petrovan
220. Effect of the repeating unit of azopolymers on surface relief grating efficiency. **W.-H. Jung**, J. Kumar, S. P. McCarthy
221. Synthesis and self-assembly of conjugated triblock copolymers. K. Li, **Q. Wang**
222. Enhancement of stereoselectivity of metallocene catalysts by MAO modification. **M. Fujita**, Y. Seki, T. Miyatake
223. Study of the migration of phosphonated polymeric additives in poly(vinylidene chloride)-based matrix and influence of the hydrolysis of phosphonate functions. B. Rixens, R. Severac, B. Boutevin, **P. Lacroix-Desmazes**, Y. Hervaud
224. Azide/alkyne- functionalized oligomeric silsesquioxanes. **L. Petraru**, W. H. Binder
225. Effect of MAA concentration on the preparation of micron-size P (St-MAA) particles. **Y. Li**, C. Kan, S. Huang
226. Epoxy resin/polyurethane hybrid polymer composites synthesized by frontal polymerization. Y. Tian, **S. Chen**, L. Chen
227. Molecular architectures of poly(3,9-dodecadiynes) by different catalysts. L. Wu, Q. Liu, S. Li, Z. Li, **K. Xu**, G.-Q. Chen, B. Z. Tang
228. Synthesis of calcium carbonate nanoparticles via carbonation route. **C. Wang**, Y. Sheng, X. Zhao, Z. Wang
229. Synthesis and light-emitting properties of disubstituted polyacetylenes bearing boronic acid pendants. H. Tong, J. W. Y. Lam, M. Häußler, Y. Q. Dong, **B. Z. Tang**
230. Synthesis and light emission of a new polyacetylene-perovskite hybrid material. J. L. Hua, Z. Li, J. W. Y. Lam, J. Z. Sun, Y. P. Dong, H. Z. Chen, M. Wang, **B. Z. Tang**
231. Photo-cross-linking and photophysics of light-emitting conjugated polymers. L. Wu, J. L. Hua, K. S. Wong, **B. Z. Tang**
232. Influence of surfactants and initiators in emulsion copolymerization of styrene-butyl acrylate. X. Zhu, X. Li, Z. Zhang, **X. Z. Kong**

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233. Synthesis and properties of polyelectrolyte containing B-CD and its metal complexes. Y. Jiang, M. Wang, **H. Zhang**, H. Li, Y. Xu, D. Wang, **J. Wang**

234. Synthesis of micron-sized multihollow soap-free P(St-EA-AA) latex particles. K. Kang, **C. Kan**, Y. Du, D. Liu

MONDAY MORNING

Section A

Unknown Site -- Unknown Room

Controlled/Living Radical Polymerizations

Mechanism of Metal Mediated CRP

Cosponsored with PMSE

K. Matyjaszewski, *Organizer*

B. B. Wayland and R. G. Gilbert, *Presiding*

8:30 —235. Electron spin resonance (ESR) study of (meth)acrylate radicals generated from purified oligomers prepared by atom transfer radical polymerization (ATRP). **A. Kajiwara**

9:00 —236. Radical Interchange Polymerization (RIP): A controlled/living radical polymerization mediated by organo-transition metal complexes. **B. B. Wayland**, X. Fu, Z. Lu, M. Fryd

9:30 —237. Borane-mediated control radical polymerization: Synthesis of chain end functionalized fluoropolymers. **T. C. Chung**, H. Hong, Z. Wang

10:00 —238. New system for the controlled radical polymerization of vinyl acetate. A. Debuigne, **C. Detrembleur**, R. Bryaskova, J.-R. Caille, R. Jérôme

10:30 — Intermission.

10:40 —239. Triazolanyl radicals: An unusual radical in controlled radical polymerization. **M. Klapper**, N. Khelfallah, M. Peretolchin, K. Müllen

11:10 —240. Ligand and initiator effect in the living radical polymerization of styrene catalyzed by Ti complexes with R₂N-, RO- and substituted cyclopentadienyl ligands and initiated by epoxides, aldehydes and peroxides. **A. D. Asandei**, I. W. Moran, Y. Chen, G. Saha

11:30 —241. Enantiomer-selective polymerization of rac-2,4-pentanediy bis(4-vinylbenzoate) using chiral atom transfer radical initiating system. **T. Satoh**, S. Ishido, T. Kakuchi

11:50 —242. Synthesis of alkylated linear amine ligands: Their effects on homogeneous ATRP. **M. H. Acar**, C. R. Becer, H. A. Ondur, S. Inceoglu

Section B

Unknown Site -- Unknown Room

Herman Mark Award in Honor of Don Paul

J. E. McGrath, *Organizer*

T. E. Long and L. M. Robeson, *Presiding*

8:30 — Introductory Remarks.

8:35 —243. Adhesion on the molecular level: Influences of electrostatic and hydrogen bonding interactions on adhesive, elastomer, and fiber performance. **T. E. Long**, C. L. Elkins, A. R. Fornof, A. S. Karikari, B. D. Mather, M. G. McKee, S. Unal, K.

2005 Fall meeting

Visnawathan

9:05 —244. Opto-electronic properties of blends of conjugated polymers. **F. E. Karasz**

9:35 —245. Effect of physical aging and aggressive feed components on hollow fiber gas separation membranes. **W. J. Koros**, W. C. Madden

10:05 — Intermission.

10:20 —246. Particle replication in non-wetting templates: Particle foundry. **J. M. DeSimone**

10:50 —247. Dispersion and properties of carbon nanotube based polymer nanocomposites. **R. Krishnamoorti**

11:20 —248. Effects of nano-clay particles on the non-linear rheology of polymer melts. **D. G. Baird**

11:50 —249. Bio-mimetic GRIN lenses using polymeric nanolayered film systems. **E. Baer**, A. Hiltner, Y. Jin, J. Yu, A. Ranade, H. Tai, J. S. Shirk, M. J. Wiggins, M. L. Sandrock

Section C

Unknown Site -- Unknown Room

Advances in Polymer Brushes

Polyelectrolyte Brushes

W. J. Brittain and S. G. Boyes, *Organizers*

D. J. Dyer, *Organizer, Presiding*

8:30 — Introductory Remarks.

8:35 —250. Interaction of polyelectrolyte brushes with surfactants. R. Konradi, **J. Ruhe**

9:00 —251. Applications for block copolymer brushes prepared via controlled/"living" free radical polymerization techniques. J. W. Hotchkiss, M. D. Rowe, J. E. Stempka, B. W. Pitts, N. D. Treat, **S. G. Boyes**

9:25 —252. Polyelectrolyte brushes: Switching between "hard" and "soft" matter. **W. T. S. Huck**, T. Farhan, O. Azzaroni

9:50 —253. Synthesis and stretching of polyelectrolyte brushes. A. Y. Sankhe, S. M. Husson, **S. M. Kilbey II**

10:15 — Intermission.

10:25 —254. Polyelectrolyte brushes as templates for PEL multilayers. Y -K. Yang, C -D. Vo, H. Zhang, **O. Prucker**, J. Ruhe

10:50 —255. Platinum and gold nanoparticles generated by in spherical polyelectrolyte brushes and their catalytic activity. **M. Ballauff**, G. Sharma, R. Kempe, T. Irrgang, Y. Talmon, S. Proch

11:15 —256. PEG based polymer brushes: Synthesis, characterization and protein adsorption studies. **J. N. Kizhakkedathu**, Y. Le, J. Janzen, R. K. Kainthan, D. E. Brooks

11:40 —257. Interaction between end-tethered polyelectrolyte brushes in the presence of oppositely charged surfactant. **A. Ishikubo**, J. W. Mays, M. V. Tirrell

Section D

Unknown Site -- Unknown Room

Molecular Recognition Using Polymers

2005 Fall meeting

V. M. Rotello, *Organizer*

S. Thayumanavan, *Organizer, Presiding*

8:30 —258. Metal ion recognition: Self-assembly of hexameric metallomacrocycles based on psuedo-octahedral coordination. **G. R. Newkome**, S. Hwang, P. Wang

9:00 —259. Supramolecular polymerization using metal/ligand interactions. **S. J. Rowan**, J. B. Beck

9:30 —260. Template-directed dynamic synthesis of mechanically interlocked dendrimers. **J. F. Stoddart**, K. C. F. Leung

10:00 —261. Effect of localized structural perturbations on dendrimer structure. **J. R. Parquette**, C. J. Gabriel

10:30 — Intermission.

10:45 —262. Molecular recognition in dendrimers based on melamine. **E. E. Simanek**

11:15 —263. The effect of shape complementarity and affinity on interactions between carbohydrate functionalized dendrimers and lectins. A. M. Gronenborn, S. Mangold, J. R. Morgan, K. H. Schlick, G. C. Strohmeyer, R. A. Udelhoven, **M. J. Cloninger**

11:45 —264. Glycodendrimers as tools for studying carbohydrate-carbohydrate interactions. P. Santacroce, **A. Basu**

Section E

Unknown Site -- Unknown Room

Defects in Polymer Nanostructures

Block Copolymers

A. Karim, E. J. Amis, U. B. Wiesner, and T. P. Russell, *Organizers*

8:30 —265. Chemical strategies and control of phase structure in block copolymers. **C. K. Ober**, F. You, M. Li, C. Chao, P. Du, U. Wiesner

9:00 —266. Precise control over the shape and dimensions of nanostructures in blockcopolymer films using chemically nanopatterned substrates. **P. F. Nealey**, E. W. Edwards, M. P. Stoykovich, M. Mueller, J. J. de Pablo

9:30 —267. Harnessing light to create defect-free, hierarchically structured polymeric materials. **A. C. Balazs**, O. Kuksenok, R. Travasso

10:00 — Intermission.

10:20 —268. Mesoscopic simulation of defect annihilation. **J. G. E. M. Fraaije**

10:50 —269. Thermal equilibrium defects in laterally confined monolayers of block copolymer cylinders. M. R. Hammond, E. W. Cochran, G. H. Fredrickson, **E. J. Kramer**

11:20 —270. Defect dynamics and diblock copolymer alignment on smooth and nanoscale confining substrates. **S. J. Sibener**, S. B. Darling, J.-I. Hahm, D.-C. Lee, D. Sundrani, L. Yu, N. Yufa, Q. Zheng

11:50 —271. Defects in a noncentrosymmetric lamellar block copolymer blend. S. Chen, **S. P. Gido**, T. Tsoukatos, A. Avgeropoulos, N. Hadjichristidis, K. Hong, J. W. Mays

MONDAY AFTERNOON

Section A

Unknown Site -- Unknown Room

2005 Fall meeting

Controlled/Living Radical Polymerizations

Mechanisms: RAFT and NMP

Cosponsored with PMSE

K. Matyjaszewski, *Organizer*

M. K. Georges and C. L. McCormick, *Presiding*

1:30 —272. Emulsion polymerizations under RAFT and ATRP conditions. **M. K. Georges**, A. R. Szkurhan, D. Chan-Seng, T. Kasahara

2:00 —273. Synthesis of temperature responsive block copolymers via aqueous room temperature RAFT polymerization. A. J. Convertine, **C. L. McCormick**

2:30 —274. RAFT polymerization in emulsion systems by self-assembly: Particle size and molecular architecture. **R. G. Gilbert**

3:00 —275. Reversible addition-fragmentation chain transfer (RAFT) polymerization of vinyl acetate using xanthates. **D. A. Shipp**, K. Vercoe, T. Zhang, M. Thopasridharan

3:30 —276. Control vs. homolysis rate constant of alkoxyamines: Kinetic modelings to improve NMP. **D. Bertin**, P. Tordo, S. Marque, D. Gigmes, O. Guerret, Y. Guillaneuf

4:00 — Intermission.

4:10 —277. Living radical ab initio emulsion polymerization of *n*-butyl acrylate by reverse iodine transfer polymerization (RITP). J. Tonnar, **P. Lacroix-Desmazes**, B. Boutevin

4:30 —278. Pulsed laser initiated RAFT polymerization. M. Buback, T. Junkers, **P. Vana**

4:50 —279. Synthesis, use and recovery of chain transfer agents for RAFT polymerization: From laboratory scale to industrial production. **S. Perrier**

5:10 —280. Tailor-made copolymers via RAFT the fast way. **R. Hoogenboom**, M. M. W. Fijten, R. M. Paulus, U. S. Schubert

Section B

Unknown Site -- Unknown Room

Herman Mark Award in Honor of Don Paul

J. M. DeSimone, *Presiding*

J. E. McGrath, *Organizer, Presiding*

1:30 —281. Magnetic polymer-metal oxide complexes and their dispersions. **J. S. Riffle**, A. C. Baranauskas, J. D. Goff, Q. Zhang-Mather, M. L. Vadala

2:00 —282. Conformal plasma polymer particle coatings for the control of highly filled polymer composite rheology. **D. H. Weinkauff**, J. F. Bian, W. R. Lujan, H. S. Jeon

2:30 —283. Next generation membrane materials for CO₂ removal from gas mixtures. H. Lin, S. Matteucci, **B. D. Freeman**, S. Kalakkunnath, D. S. Kalika

3:00 —284. Probing the polymer interphase by nanoscale forced-assembly. **A. Hiltner**, R. F. Y. Liu, E. Baer

3:30 — Intermission.

3:45 —285. Polymer blends and membrane separation: Spanning five different decades. **L. M. Robeson**

4:15 —286. Progress and materials for advanced materials for proton exchange membranes. **J. E. McGrath**

2005 Fall meeting

4:45 —287. The shaping of a career in polymer science. **D. R. Paul**

5:15 — Concluding Remarks.

Section C

Unknown Site -- Unknown Room

Advances in Polymer Brushes

Applications of Polymer Brushes

W. J. Brittain, S. G. Boyes, and D. J. Dyer, *Organizers*

S. Minko, *Presiding*

1:30 — Introductory Remarks.

1:35 —288. Adhesive properties of dense aqueous brushes. **D. E. Brooks**, D. Goodman, J. Janzen, J. N. Kizhakkedathu, Y. Le

2:00 —289. PEG-Engineering surface having both non-fouling and high-sensing characters. **Y. Nagasaki**

2:25 —290. AFM investigation of poly(methyl methacrylate) grafted from various gold surface topologies using atom transfer radical polymerization. S. Leigh, G -Y. Liu, **T. E. Patten**

2:50 —291. Polymer brush membranes for pervaporation. **M. L. Bruening**, L. Sun, G. L. Baker

3:15 — Intermission.

3:25 —292. Penetration and tethering behavior of free chains into polymer brushes. H. Huang, S. E. Rankin, A. Cammers, **L. S. Penn**

3:50 —293. Kinetic studies of surface-initiated photoiniferter-mediated photopolymerizations of methyl methacrylate. S. B. Rahane, **A. T. Metters**, S. M. Kilbey

4:15 —294. Combinatorial studies of the effect of polymer grafting density on protein absorption and cell adhesion. **Y. Mei**, T. Wu, C. Xu, K. Langenbach, J. T. Elliott, B. D. Vogt, K. L. Beers, E. J. Amis, N. R. Washburn

4:40 —295. Synthesis, preparation, and conformation of stimulus-responsive end-grafted layers of poly(methacrylic acid-g-ethylene glycol). **M. Ye**, D. Zhang, L. Han, C. Ortiz

Section D

Unknown Site -- Unknown Room

Molecular Recognition Using Polymers

S. Thayumanavan and V. M. Rotello, *Organizers*

A. Basu, *Presiding*

1:30 —296. Molecularly imprinted polymer sensors and sensor arrays. **K. D. Shimizu**

2:00 —297. Development of one monomer molecularly imprinted polymers (OMNiMIPs). **D. A. Spivak**, M. Sibrian-Vazquez, S. Houck

2:30 —298. Bifunctional coordinating polymers: Tuning ionic recognition with auxiliary groups. **S. D. Alexandratos**, X. Zhu

2:50 —299. Cross-conjugated PPE-PPV hybrids as metal ion sensors. **U. H. F. Bunz**, A. J. Zuccherro, J. N. Wilson

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3:20 — Intermission.

3:35 —300. Exploring structure and function of 2' OMe RNA g-quads and aptamers. **D. T. McQuade**

4:05 —301. Redox-modulated supramolecular polymers. **B. Erdogan**, B. J. Jordan, J. B. Carroll, G. Cooke, V. M. Rotello

4:25 —302. Dynamic covalent polymer assemblies: Self-repairing poly(boronate)s. W. Niu, B. M. Ranbo, **J. J. Lavigne**

Section E

Unknown Site -- Unknown Room

Defects in Polymer Nanostructures

Nanoparticles and Surface Modification

A. Karim, E. J. Amis, U. B. Wiesner, and T. P. Russell, *Organizers*

1:30 —303. Healing surface defects with nanocomposites containing spheres and rods. **A. C. Balazs**, K. A. Smith, S. Tyagi

1:50 —304. Entropic phase separation of organic nanoparticles. **R. S. Krishnan**, M. E. Mackay, C. J. Hawker

2:10 —305. Nanoparticle induced phase stability in polymers. **A. Tuteja**, M. E. Mackay, C. J. Hawker, B. A. Van Horn, Z. Guan

2:30 —306. Single molecule properties and self assembly of dendronized polymers. **A. K. Chakraborty**, J. Das, M. Yoshida, Z. M. Fresco, T. L. Choi, J. M. J. Frechet

3:00 — Intermission.

3:20 —307. Gradient micropatterns for surface nanometrology and thin film nanomaterials development. **M. J. Fasolka**, D. Julthongpiput, W. Zhang, A. Karim, E. J. Amis

3:50 —308. Investigation of factors influencing the retention of nanostructure in polymers templated from lyotropic liquid crystals. **M. A. DePierro**, K. G. Carpenter, T. J. Gioielli, C. A. Guymon

4:10 —309. Crystallographic cracking during a thermally-induced solid-state phase transition in TIPS pentacene. **J. Chen**, J. E. Anthony, D. C. Martin

4:30 —310. Heterogeneity in polymer coatings. X. Gu, T. Nguyen, **D. Raghavan**

4:50 —311. Shear effects on the molecular structures of polymers. **D. W. Riley**

MONDAY EVENING

Section A

Unknown Site -- Unknown Room

Sci-Mix

C. A. Guymon, *Organizer*

8:00 - 10:00

80-81, 85-86, 88, 99, 103, 107-108, 110, 114-115, 117, 124, 127, 136, 140, 144-146, 148, 150-151, 155, 163, 172, 175-177, 181, 185, 204-205, 207, 220. See previous listings.

403, 408, 417, 422, 424, 434, 439, 452, 456, 458-459, 463, 467, 470, 472, 478, 480-481, 487-488, 507, 514, 518-520, 527, 550, 558, 561, 566-568, 571-572, 604, 606, 608-609, 621, 624, 626. See subsequent listings.

2005 Fall meeting

TUESDAY MORNING

Section A

Unknown Site -- Unknown Room

Controlled/Living Radical Polymerizations

Controlled Architecture by CRP I

Cosponsored with PMSE

K. Matyjaszewski, *Organizer*

C. Hawker and Y. Gnanou, *Presiding*

8:30 —312. Facile synthesis of block copolymers for nanolithographic applications. **C. J. Hawker**, J. Bang, E. Drockenmuller, T. P. Russell, D. Ryu

9:00 —313. Living/controlled copolymerization of polar vinyl monomers with non-activated alkenes. **A. Sen**, S. Borkar

9:30 —314. Polymers with pendant allyl ester groups prepared by ATRP: Synthesis, characterization and microstructuring of thin films. **M. Moeller**, M. Mennicken, R. Nagelsdiek, H. Keul

10:00 —315. Controlled radical polymerization of N-vinylpyrrolidone by Reversible Addition Fragmentation Chain Transfer (RAFT) and the synthesis of its block copolymers. **Y. Gnanou**, R. Devasia, R. L. Bindu, N. Mougin

10:30 — Intermission.

10:40 —316. Click functionalization of well-defined (co)polymers prepared by atom transfer radical polymerization. **B. S. Sumerlin**, N. V. Tsarevsky, G. Louche, H. Gao, K. Matyjaszewski

11:00 —317. Functional star polymers by quasiliving atom transfer radical polymerization. O. Kovács, **B. Iván**

11:20 —318. Nitroxide-mediated polymerization as a route to functional multiblock copolymers. **R. B. Grubbs**, Q. Xia, J. K. Wegrzyn

11:40 —319. Synthesis and novel application of gradient copolymers made by controlled radical polymerization: Compatibilization of immiscible polymer blends. J. Kim, H. Zhou, S. T. Nguyen, **J. M. Torkelson**

12:00 —320. Synthesis of cyclic glycopolymer and cyclic-linear diblock copolymers by atom transfer radical polymerization. J -Q. Meng, F -S. Du, Y -Q. Dong, **Z -C. Li**

Section B

Unknown Site -- Unknown Room

Polymers for Bioactive Surfaces

Controlled Interactions at Surfaces

Cosponsored with BIOL

J. G. Linhardt and G. N. Tew, *Organizers*

J. C. M. van Hest and K. L. Kiick, *Organizers, Presiding*

8:30 — Introductory Remarks.

8:35 —321. Smart biohybrid materials. **P. Stayton**, A. S. Hoffman

9:05 —322. Interactions of biopolymers and discotic nanoclays. **Q. Hu**, K. L. Kiick, D. J. Pochan, S. R. Fahnestock, R. H. Staley

9:25 —323. Modeling the dynamic interactions between cells and compliant polymeric surfaces. **A. C. Balazs**, A. Alexeev,

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R. Verberg

9:55 —324. Peptide-mediated self assembly on the surface of emulsion-templated porous polymers. **N. R. Cameron**, A. Dureault, J. C. M. van Hest, J. C. Thies, R. Weberskirch, T. Michon

10:15 — Intermission.

10:35 —325. Immobilization and hybridization of oligonucleotides on maleimido-terminated self assembled monolayers. **W. A. Goedel**

10:55 —326. Control of protein adsorption on responsive polymer surfaces. N. Houbenov, L. Ionov, **S. Minko**, M. Stamm

11:15 —327. Passive and active surfaces to control protein and cell interactions. **A. Chilkoti**

11:45 —328. Control of protein adsorption and cell adhesion: Effect of polymer graft density. **Y. Mei**, T. Wu, C. Xu, K. Langenbach, J. T. Elliott, K. L. Beers, E. J. Amis, N. R. Washburn, L. Henderson

Section C

Unknown Site -- Unknown Room

Cosmetic Nanotechnology: Polymers and Colloids in Personal Care

Tutorial: Physical Principles of Polymers and Cosmetics for Personal Care

Cosponsored with Society of Cosmetic Chemists, COLL, and WCC

S. E. Morgan and R. Y. Lochhead, *Organizers*

K. O. Havelka, *Organizer, Presiding*

8:30 —329. Polymers in cosmetics. **R. Y. Lochhead**

9:30 —330. Nanoparticles based on charge-driven self assembly. **M. A. Cohen Stuart**

10:00 —331. Challenge of handling nanoparticles in complex cosmetics systems. **R. P. Elliott**, N. Jones, P. R. Hertz

10:30 — Intermission.

10:45 —332. Cosmetic nanoscience. **P. G. Cummins**

11:15 —333. Regulation of cosmetics and nanotechnology. **L. M. Katz**

11:45 —334. Hair care and skin care (personal care) claims substantiation. **R. Comber**, T. Gao, L. Joseph, J.-M. Tien

Section D

Unknown Site -- Unknown Room

General Papers: Polymers and Biology

D. Garcia, *Organizer*

A. K. Andrianov, *Presiding*

8:00 —335. Modified polymers as safe and efficient gene delivery carriers. P. Xu, S. Li, Q. Li, J. Ren, **Y. Shen**, M. Radosz

8:20 —336. Accelerated hydrolysis of the beta-(1,4)-glycosidic linkages due to grafting of various groups onto cellulose. **D. T. Karst**, Y. Yang

8:40 —337. Synthesis and properties of second generation dendronized celluloses. **C. Zhang**, W. H. Daly

9:00 —338. The impact of surfactant structure and morphology on biocide efficacy. **A. M. Rhoades**, A. P. Hathorne, D. A. Wicks

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9:20 —339. Poly(caprolactone) based, highly branched segmented poly(ester urethane)s and poly(ester urethane urea)s via A₂ and B₃ methodologies. K. M. Sisson, **S. Unal**, T. E. Long

9:40 —340. Synthesis, characterization and in vitro degradation of L-alanine co-substituted polyphosphazenes. **A. Singh**, N. Krogman, S. Sethuraman, L. S. Nair, J. L. Sturgeon, P. W. Brown, C. T. Laurencin, H. R. Allcock

10:00 —341. Colloidal micelles as multifunctional vaccines. **D. J. Irvine**, S. Jain, W. T. Yap, Y -C. Huang

10:20 —342. Investigation of 3-D Tyrosine-derived polycarbonate scaffolds for tissue engineering. **J. S. Stephens**, T. Dutta Roy, J. P. Dunkers, M. L. Becker, A. Rege, J. Kohn

10:40 —343. Water-soluble biodegradable polyphosphazenes: Emerging systems for biomedical applications. **A. K. Andrianov**

11:00 —344. Polymerization of Actin: Structural changes from small-angle neutron scattering. **A. I. Norman**, R. Ivkov, J. G. Forbes, S. C. Greer

11:20 —345. Probe diffusion in PVA solutions and gels studied by fluorescence correlation spectroscopy. **A. Michelman-Ribeiro**, H. Boukari, R. Nossal, F. Horkay

11:40 —346. Physical and chemical characterization of bioactive polymer composites. **T. B. Icenogle**, W. F. Regnault, J. M. Antonucci, D. Skrtic

Section E

Unknown Site -- Unknown Room

Defects in Polymer Nanostructures

Block Copolymers

A. Karim, E. J. Amis, U. B. Wiesner, and T. P. Russell, *Organizers*

8:30 —347. Grain boundary morphologies of block copolymer nanostructures studied by transmission electron microtomography. **H. Jinnai**, K. Sawa, H. Sugimori, K. Yasuda, Y. Nishikawa, T. Nishi

9:00 —348. Templated self-assembly of block copolymers for nanolithographic applications. **C. A. Ross**, J. Y. Cheng, F. Ilievski, A. M. Mayes, E. L. Thomas, H. I. Smith, G. J. Vancso

9:30 —349. Nano-structured materials by block copolymer thin films. **J. K. Kim**, J. I. Lee, S. Y. Yang, J. A. Jang, U. Jeong

10:00 — Intermission.

10:20 —350. Shear-induced alignment in thin films of a sphere-forming block copolymer. D. E. Angelescu, M. W. Wu, J. H. Waller, P. M. Chaikin, **R. A. Register**

10:50 —351. On the physical origin of block copolymer alignment in electric fields. **G. Krausch**

11:20 —352. Development of long range order in Diblock copolymer thin films. **M. D. Dadmun**, S. M. Fontana, D. H. Lowndes

11:40 —353. Defects in block copolymer-sol nanoparticle derived polymer-inorganic hybrid thin films. **P. Du**, J. S. Gutmann, U. Wiesner

TUESDAY AFTERNOON

Section A

Unknown Site -- Unknown Room

2005 Fall meeting

Controlled/Living Radical Polymerizations

Controlled Architecture by CRP

Cosponsored with PMSE

K. Matyjaszewski, *Organizer*

C. Barner-Kowollik and B. Klumperman, *Presiding*

1:30 —354. Multifunctional star polymers via the RAFT process: Dendritic cores and formation processes. **C. Barner-Kowollik**, M. H. Stenzel, T. P. Davis, H. Chaffey-Millar

2:00 —355. RAFT mediated copolymerizations: The challenge of random copolymer blocks. **B. Klumperman**, J. B. McLeary, J. S. Bozovic

2:30 —356. Novel route towards near-monodisperse poly((meth)acrylic) containing polymer architectures. **F. E. Du Prez**, W. Van Camp

3:00 —357. Precise control of structural parameters during the synthesis of amphiphilic copolymers by CRP: Influence on their stabilization properties for polymerization in aqueous dispersed media. **M. Save**, M. Manguian, G. Delaittre, C. Chassenieux, C. Lefay, B. Charleux

3:30 —358. Atom transfer radical polymerization grafting of 2-methacryloyloxyethyl phosphorylcholine for non-biofouling surfaces. W. Feng, J. L. Brash, **S. Zhu**

4:00 — Intermission.

4:10 —359. Combination of RAFT and Click chemistry for the synthesis of core functionalized nanoparticles. **R. K. O'Reilly**, M. J. Joralemon, W. Liu, K. L. Wooley, C. J. Hawker

4:30 —360. Block copolymers by ATRP using poly(propylene imine) dendrimer initiators. **Y. H. Kim**, W. T. Ford

4:50 —361. Nanoscale structure of SAN-PEO-SAN synthesized by ATRP. **M. S. Silverstein**, M. Shach-Caplan, H. Bianco-Peled, N. V. Tsarevsky, B. M. Cooper, K. Matyjaszewski

Section B

Unknown Site -- Unknown Room

Polymers for Bioactive Surfaces

Surfaces for Therapeutic Applications

Cosponsored with BIOL

J. C. M. van Hest and K. L. Kiick, *Organizers*

J. G. Linhardt and G. N. Tew, *Organizers, Presiding*

1:30 —362. Characterization of drug eluting coatings on medical devices. **K. R. Wormuth**, D. M. DeWitt, G. D. Haugstad

2:00 —363. Polymer demixed nanotopographic surfaces provide nonbiological cell-stimulating cues. **J. Y. Lim**, J. C. Hansen, C. A. Siedlecki, H. J. Donahue

2:20 —364. Localized delivery of DNA from surfaces coated with multilayered polyelectrolyte films. C. M. Jewell, J. Zhang, N. J. Fredin, **D. M. Lynn**

2:50 —365. Protein patterning on polymer films using localized acid generation. K. L. Christman, **H. D. Maynard**

3:10 — Intermission.

3:30 —366. Surface modification of degradable polymers. **A -C. Albertsson**, U. Edlund, M. Kallrot

3:50 —367. Carbohydrate-functionalized surfaces for glycomics application. **G. Coullerez**, K. Barth, M. Textor

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4:10 —368. Non-covalent modification of collagen scaffolds. **M. S. Yu**

4:40 —369. Synthesis of and drug delivery from a polyisobutylene based ABA-type thermoplastic elastomer containing vinyl alcohol units in the side segments. **Y. Zhou**, R. Faust, R. Richard, M. Schwarz

Section C

Unknown Site -- Unknown Room

Cosmetic Nanotechnology: Polymers and Colloids in Personal Care

Fundamentals of Synthesis and Film Formation

Cosponsored with Society of Cosmetic Chemists, COLL, and WCC

K. O. Havelka and R. Y. Lochhead, *Organizers*

S. E. Morgan, *Organizer, Presiding*

1:30 —370. Personal care and cosmetic nanotechnology: Perspective and opportunities. **K. O. Havelka**

2:00 —371. Colloidal dispersions with non-spherical morphologies: Stimuli-responsive films. D. J. Lestage, **M. W. Urban**

2:30 —372. Amphiphilic polymers from living radical polymerization for personal care applications. **D. M. Haddleton**, A. J. Limer, G. Mantovani, D. Brayden, V. San Miguel

3:00 — Intermission.

3:15 —373. Amino acid-based, amphiphilic block copolymers and statistical terpolymers with pH- and salt-responsive behavior in aqueous media. R. G. Ezell, **C. L. McCormick**

3:45 —374. Polymer-surfactant association: Interfacial and bulk complexes. **B. Lindman**, Y. Samoshina, T. Nylander

4:15 —375. Enabling advanced emulsions in microchannel architecture. **L. Silva**, A. L. Y. Tonkovich, D. Qiu, K. Pagnotto, P. Neagle, S. Perry, R. Y. Lochhead

4:45 —376. Formulating cosmetic emulsions: Ingredient chemistry and function. **K. Klein**

Section D

Unknown Site -- Unknown Room

Fluorine Containing Polymers

Tutorial Session

Cosponsored with FLUO

W. Coggio, K. J. Wynne, B. Ameduri, and W. J. Brittain, *Organizers*

D. W. Smith Jr., *Organizer, Presiding*

1:00 —377. Why fluorine? **D. D. DesMarteau**

1:40 —378. Recent advances in radical copolymerization of fluorolefins and especially vinylidene fluoride. **B. Ameduri**

2:20 —379. Fluorine containing polymer brushes and branched architectures. **W. J. Brittain**

3:00 — Intermission.

3:10 —380. Fluoropolymer surface science tutorial. **K. J. Wynne**

3:50 —381. Fluorine in coatings. **M. Pellerite**

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4:20 —382. Fluorine containing polymers at biological interfaces. **C. K. Ober**

Section E

Unknown Site -- Unknown Room

General Papers: Synthesis and Characterization

D. Garcia, *Organizer*

A. Biswas, *Presiding*

1:00 —383. Chemical oxidative synthesis of heterocyclic polymers. **R. M. Brauch**, R. L. McCarley

1:20 —384. Influence of dispersion medium on the electrorheological effect of the poly(o-toluidine) electrorheological fluids. **K. Su**, N -L. Yang

1:40 —385. Novel copolymer for enhanced steel-epoxy adhesion. A. S. Quincy, **Y. G. Durant**, J. P. Claverie

2:00 —386. Dendrimer/alumina composite membranes for gas phase separations. **R. L. Sherman Jr.**, S. Yoo, D. M. Ford, E. E. Simanek

2:20 —387. The application of AFM techniques in the characterization of BIIR/NR blends. **D. Raghavan**, P. Achalla, J. McCormick, C. Moreland, T. Hodge

2:40 —388. Solid surface modifications and polymer adsorption as monitored by flow micro-calorimetry measurements. **B. Haidar**, R. Al Akoum, A. Vidal

3:00 —389. Synthesis and light emitting properties of polyacetylenes having pendant fluorene groups. **C -S. Hsu**, C -H. Huang

3:20 —390. Helical magic: Conformationally non-fluxional and reversibly switching helical polyguanidines. **H -Z. Tang**, B. M. Novak

3:40 —391. Factors influencing surface relief grating. **W -H. Jung**, J. Kumar, S. P. McCarthy

4:00 —392. Completion of additive primary colors in polymeric electrochromics. **G. Sonmez**, H. Bulbul Sonmez, C. K -F. Shen

4:20 —393. Branching characterization of lipase catalyzed glycerol copolyesters by size exclusion chromatography with on-line multi-angle laser light scattering detection (SEC-MALLS). **W. Gao**, A. S. Kulshrestha, R. A. Gross

4:40 —394. Synthesis and characterization of organoboron quinolate polymers with tunable luminescence properties. **Y. Qin**, S. Shah, I. Kiburu, F. Jäkle

TUESDAY EVENING

Section A

Unknown Site -- Unknown Room

Advances in Polymer Brushes

W. J. Brittain, S. G. Boyes, and D. J. Dyer, *Organizers*

6:00 - 8:00

395. Atomic force microscopy study of reversibly crosslinked polymer brushes. **N. I. Abu-Lail**, M. Kaholek, D. M. Loveless, S. L. Craig, S. Zauscher

396. Conformational statistics of dendronized polymers. **P. M. Welch**, C. F. Welch

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- 397.** Fabrication of smart surfaces with different architecture-nanomechanical properties. **M. C. LeMieux**, S. Peleshanko, Y -H. Lin, V. V. Tsukruk
- 398.** Control of the density of polymer brushes grown from Au surfaces by surface-initiated ATRP. **Z. Bao**, M. L. Bruening, G. L. Baker
- 399.** Generation of stable ultrahydrophilic surfaces by poly(hydroxymethylene) adsorption. **E. Cataltarla**, T. J. McCarthy
- 400.** Hierarchical mixed polymer brushes. **R. Lupitsky**, S. Minko, C. Tsitsilianis
- 401.** Interface roughness correlations and surface fluctuations in diblock copolymer brushes synthesized by atom transfer radical polymerization. **B. Akgun**, M. D. Foster, W. J. Brittain, X. Li, J. Wang
- 402.** Polymer brushes via recognition mediated modification of surfaces. **H. Xu**, A. Sanyal, T. B. Norsten, O. Uzun, V. M. Rotello
- 403.** Low temperature growth of thick polystyrene brushes via atom transfer radical polymerization (ATRP). **A. Samadi**, S. M. Husson, S. M. Kilbey, Y. Liu, I. Luzinov
- 404.** Polymer star-brushes from reactive and crosslinked ethylene-based rubber particles: Synthesis and applications. **U. F. Kandil**, T. C. Chung
- 405.** Polymer brushes from 2-D polymer-silicate nanocomposites. **R. G. Guino**, I. L. Lagadic, T. A. P. Seery
- 406.** Preparation of CaCO₃/polystyrene inorganic/organic composite particles. Y. Sheng, B. Zhou, X. Zhao, **Z. Wang**
- 407.** Ordered arrays of fine particles coated with well-defined, high-density polymer brushes. **K. Ohno**, T. Morinaga, S. Takeno, Y. Tsujii, T. Fukuda
- 408.** pH, Salt, and solvent sensitive polymer brush micro- and nanopatterns fabricated by electron-beam lithography. **M. Kaholek**, W -K. Lee, J. Feng, B. LaMattina, D. J. Dyer, S. Zauscher
- 409.** Structure of poly(ethylene oxide) brushes on model hydrophobic and hydrophilic surfaces: A molecular dynamics simulation study. **D. Bedrov**, O. Borodin, G. D. Smith
- 410.** Polymer brushes from 3-D gold-silica core-shell nanostructures. **K. McBreairty**, T. A. P. Seery
- 411.** Polyoxanorbornene silica nanocomposites from silica nanoparticles. **D. J. Sandberg**, T. A. P. Seery
- 412.** Protein imprinting via solvent assisted grafting of polymer brush. **B. Zdyrko**, O. Hoy, I. Luzinov
- 413.** Responsive nanoparticles with hydrophobic/hydrophilic behavior. **M. Motornov**, M. Stamm, S. Minko
- 414.** Synthesis and characterization of crystalline polymer brushes. **Y. Zheng**, M. L. Bruening, G. L. Baker
- 415.** Super lubrication between high-density polymer brushes in good solvent. **Y. Tsujii**, K. Okayasu, K. Ohno, T. Fukuda
- 416.** Synthesis of core-shell nanoparticles using surface initiated living free radical polymerization. **S. B. Jhaveri**, D. Maschke, D. Koylu, K. R. Carter
- 417.** Surface grafting on polymer surface by physisorbed free radical initiators. **S. Hu, W. Brittain**
- 418.** Surface immobilization of RAFT chain transfer agents. **B. W. Pitts**, M. D. Rowe, S. G. Boyes
- 419.** Surface modification of gold nanorods with PDMAEMA. **J. W. Hotchkiss**, N. D. Treat, B. A. Higgins, A. B. Lowe, S. G. Boyes
- 420.** Switchable thin film surface prepared via a simple "grafting-to" method using a polystyrene-b-poly(2-vinylpyridine) copolymer. **Y. Wang**, W. Brittain

2005 Fall meeting

- 421.** Switchable Y-shaped brushes and nanomechanical properties in selective fluids. **Y -H. Lin**, M. C. LeMieux, E. R. Zubarev, H. Shulha, V. V. Tsukruk
- 422.** Synthesis of amphiphilic PS/PAAM mixed brushes on silicon via the "grafting-from" method. **J. Feng**, D. J. Dyer
- 423.** Synthesis of diblock copolymer brushes via surface immobilized RAFT chain transfer agents. **M. D. Rowe**, B. W. Pitts, A. B. Lowe, S. G. Boyes
- 424.** Synthesis of monodisperse silica particles with well defined polymer brushes by surface initiated atom transfer radical polymerization. **B. Radhakrishnan, R. Ranjan, W. J. Brittain**
- 425.** Synthesis of nanoparticles within tethered diblock copolymer brush systems. **J. E. Stempka**, S. G. Boyes
- 426.** Synthesis of nanosilica surface-grafted polymer via catalytic chain transfer polymerization. **S. Chen**, X. Xu, L. Chen
- 427.** Synthesis of poly acrylic acid brushes via hydrolysis of poly(tert-butyl acrylate) brushes. **N. D. Treat**, J. E. Stempka, S. G. Boyes
- 428.** Synthesis of polymer brushes with gradient in grafting density. **Y. Liu**, V. Klep, I. Luzinov
- 429.** Synthesis of polymer brushes with various densities from silicon substrate in surface-initiated ATRP. **Z. Bao**, M. L. Bruening, G. L. Baker
- 430.** Thermoresponsive polymer brushes for modulated interactions with bioactive compounds. **A. Kikuchi**, N. Idota, J. Kobayashi, K. Sakai, T. Okano

Section B

Unknown Site -- Unknown Room

Controlled/Living Radical Polymerizations

Cosponsored with PMSE

K. Matyjaszewski, *Organizer*

6:00 - 8:00

- 431.** Synthesis and characterization of polysulfone-g-poly(styrenesulfonic acid) graft copolymers for proton exchange membranes. **C. G. Cho**, G. H. Li, S. G. An
- 432.** Electrochemistry as a correlation tool candidate with catalytic activities in ruthenium(II)-catalyzed atom transfer radical polymerization? **A. Démonceau**, A. Richel, O. Tutusaus, C. Viñas, F. Teixidor, A. F. Noels
- 433.** Monomode microwave-assisted atom transfer radical polymerization catalyzed by [RuCl₂(p-cymene)(PCy₃)]. **A. Démonceau**, S. Delfosse, H. Wei, A. F. Noels
- 434.** Atom transfer vs. catalytic chain transfer polymerization using α -diimine iron catalysts: Influence of metal spin state on mechanism. V. C. Gibson, R. K. O'Reilly, H. S. Rzepa, **M. P. Shaver**
- 435.** Precipitons for copper removal in atom transfer radical polymerization: Reversible isomerization. **N. Ayres**, M. E. Honigfort, W. J. Brittain, C. S. Wilcox
- 436.** Quasiliving atom transfer radical polymerization of methacrylates by slow initiation with 4-methylbenzyl bromide. O. Kovács, I. Szanka, **B. Iván**
- 437.** Cu complexes with phosphorus ligands for living radical polymerization of MMA. **S. K. Noh**, K. E. Shin, H. J. Kim, S. C. Hong, W. S. Lyoo
- 438.** Well-defined poly(3-hexylthiophene)-b-poly(acrylate) diblock copolymers. **G. Sauvé**, M. C. Iovu, M. Jeffries-El, R. D. McCullough
- 439.** Comparative study of poly(3-alkylthiophene) triblock copolymers. **J. R. Cooper**, R. Zhang, M. C. Iovu, R. D. McCullough, T. Kowalewski

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- 440.** Living radical polymerization techniques applied to the synthesis of well-defined copolymers containing regioregular poly(3-alkythiophene). **M. C. Iovu**, E. E. Sheina, A. Javier, C. Craley, M. Jeffries-EL, R. D. McCullough
- 441.** Preparation of organoboron block copolymers via ATRP of silicon and boron-functionalized monomers. **Y. Qin**, V. Sukul, D. Pagakos, C. Cui, F. Jäkle
- 442.** Atom transfer radical polymerization of methyl acrylate with Mo^{III} coordination compounds as catalysts in ionic liquids. S. Maria, T. Biedron, **R. Poli**, P. Kubisa
- 443.** Recent advances in iodine transfer polymerization (ITP) of vinylidene fluoride (VDF). D. Valade, C. Boyer, L. Sauguet, **P. Lacroix-Desmazes**, B. Ameduri, B. Boutevin
- 444.** Synthesis and characterization of crosslinkable sulfonated block copolymers by controlled radical polymerization. **K -Y. Baek**, N. P. Balsara
- 445.** ATRP as a versatile tool for the synthesis of stars and dendrimer-like polymers. **R. Matmour**, D. Taton, Y. Gnanou
- 446.** Controlled/living radical polymerization mediated by organo-cobalt complexes through a degenerative transfer/radical interchange polymerization (RIP) process. **X. Fu**, B. B. Wayland, M. Fryd
- 447.** From hydrophobic to hydrophilic star-microgels. **L. A. Connal**, G. G. Qiao, D. H. Solomon
- 448.** Surface modification of titanium dioxide nanotubes by controlled radical polymerization. Y. Gao, X. P. Gao, **D. Yan**, X. H. He, X. W. Cui, D. Y. Song
- 449.** Star polymers with chiral-functionalized core by living radical polymerization: Synthesis and characterization. **K. Satoh**, M. Isonaga, M. Kamigaito, Y. Okamoto
- 450.** Synthesis, characterization and polymerization of well-defined acrylic macromonomers by atom transfer radical polymerization. **L. Couvreur**, B. Sharma, F. E. Du Prez
- 451.** Block copolymer by the transformation of living cationic polymerization into living radical polymerization. **B. Cheng**, J. He
- 452.** Radical ring-opening polymerization: A new route to polyphosphines. **M. L. Coote**, J. L. Hodgson
- 453.** Activators generated by electron transfer (AGET) ATRP in miniemulsion, microemulsion and in the presence of limited air. **K. Min**, H. Gao, K. Matyjaszewski
- 454.** Halogen exchange in atom transfer radical polymerization as a route to well-defined block copolymers. **N. V. Tsarevsky**, B. M. Cooper, O. J. Wojtyna, N. M. Jahed, H. Gao, K. Matyjaszewski
- 455.** "Click" coupling of azide- and alkyne-functionalized well-defined polymers prepared by atom transfer radical polymerization. **N. V. Tsarevsky**, B. S. Sumerlin, P. L. Golas, K. Matyjaszewski
- 456.** Application of AGET ATRP in synthesis of block copolymers. **W. Jakubowski**, K. Matyjaszewski
- 457.** Aqueous solution properties of double-responsive molecular brushes prepared by ATRP. **H -I. Lee**, K. Matyjaszewski
- 458.** Incorporation of poly(2-acrylamido-2-methyl-N-propanesulfonic acid) segment into block and brush copolymers by ATRP. **L. McCullough**, B. Dufour, S. Yu, S. S. Sheiko, K. Matyjaszewski
- 459.** Conducting polyaniline templated by self-assembly of block copolymers prepared by CRP. **B. Dufour**, L. McCullough, C. Tang, T. Kowalewski, K. Matyjaszewski
- 460.** Atom transfer radical polymerization initiated from the surface of nanoporous silica. **M. Kruk**, B. Dufour, E. B. Celer, L. McCullough, T. Kowalewski, M. Jaroniec, K. Matyjaszewski
- 461.** Carbon nanosurfaces from polyacrylonitrile grafted on the surface of porous silica. **M. Kruk**, B. Dufour, E. B. Celer, L. McCullough, M. Jaroniec, K. Matyjaszewski, T. Kowalewski

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- 462.** Atom transfer radical polymerization of 2-hydroxyethyl methacrylate in protic media using activators generated by electron transfer. **J. K. Oh**, K. Matyjaszewski
- 463.** HPLC and 2-D chromatography of complex polymers synthesized by ATRP. **H. Gao**, N. M. Jahed, K. Matyjaszewski
- 464.** Preparation of degradable miktoarm star copolymers via ATRP by "in-out" method. **H. Gao**, N. V. Tsarevsky, K. Matyjaszewski
- 465.** Solvent induced morphologies of PMMA-PEO-PMMA triblock copolymers synthesized by ATRP. **D. J. Siegwart**, W. Wu, T. Kowalewski, J. O. Hollinger, K. Matyjaszewski
- 466.** Atom transfer radical copolymerization of 5,6-benzo-2-methylene-1,3-dioxepane and n-butyl acrylate. **J. Huang**, R. Gil, K. Matyjaszewski
- 467.** Synthesis of poly (dimethyl(1-ethoxycarbonyl)vinyl phosphate) and block copolymers via ATRP. **J. Huang**, K. Matyjaszewski
- 468.** Polymer brushes prepared by surface initiated ATRP. **J. Pietrasik**, B. Cusick, T. Kowalewski, K. Matyjaszewski
- 469.** Temperature-responsive water-soluble molecular brushes prepared by atom transfer radical polymerization. **B. S. Sumerlin**, J. Pietrasik, K. Matyjaszewski
- 470.** Preparation of silica hybrids by ATRP in miniemulsion. **L. Bombalski**, K. Min, C. Tang, K. Matyjaszewski
- 471.** Variable density ATRP-polymer grafts from silicon. **L. Bombalski**, B. Cusick, P. Ye, T. Kowalewski, A. J. Gellman, K. Matyjaszewski
- 472.** AGET ATRP in miniemulsion from functionalized CdE (E=S,Se) Q-Dot surfaces. **A. C. C. Esteves**, L. Bombalski, B. Cusick, A. Barros-Timmons, K. Matyjaszewski, T. Trindade
- 473.** Osmium catalyzed radical polymerization. **W. A. Braunecker**, Y. Itami, K. Matyjaszewski
- 474.** Exploring the consequences of monomer coordination in radical polymerization. **W. A. Braunecker**, N. V. Tsarevsky, T. Pintauer, R. R. Gil, K. Matyjaszewski
- 475.** Synthesis of poly(n-butyl acrylate) with variable architecture by "grafting through" ATRP. **S. Ohno**, K. Matyjaszewski
- 476.** Effect of ligand and comonomer on cobalt mediated radical polymerization of vinyl acetate. **H. Kaneyoshi**, K. Matyjaszewski
- 477.** Determination of activation rate constants in ATRP. **W. Tang**, K. Matyjaszewski
- 478.** Well-defined polyacrylonitrile copolymers prepared by various CRP and their applications as nanostructured carbons. **C. Tang**, B. Dufour, L. Bombalski, K. Matyjaszewski, T. Kowalewski
- 479.** Preparation of amphiphilic block copolymers for the stabilization and delivery of iron nanoparticles for remediation of DNAPLs. **J. Ok**, B. Dufour, T. Sarbu, K. Matyjaszewski
- 480.** Multicompartment micelles obtained via the self-assembly of a well-defined triblock macrosurfactant prepared by raft polymerization. **J -F. Lutz**, S. Kubowicz, J -F. Baussard, A. F. Thünemann, H. von Berlepsch, A. Laschewsky
- 481.** Titanium half-sandwich and scorpionate complexes in the living radical polymerization of styrene initiated by epoxide radical ring opening. **A. D. Asandei**, I. W. Moran
- 482.** Using "click" chemistry for post-reacting well-defined polymer chains prepared by atom transfer radical polymerization. **J -F. Lutz**, H. G. Börner, K. Weichenhan
- 483.** Alkoxide and bisketonate titanium catalysts for the living radical polymerization of styrene initiated by epoxide radical ring opening. **A. D. Asandei**, I. W. Moran

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- 484.** Substituted titanocenes in the living radical polymerization of styrene initiated by radical ring opening of epoxides. **A. D. Asandei**, I. W. Moran
- 485.** Synthesis and characterization of poly(methyl methacrylate-*b*-pentafluorostyrene) block copolymers by ATRP. **T. L. Bucholz**, Y. L. Loo
- 486.** Synthesis and characterization of a S-*b*-(HEMA-co-DMAEMA) diblock copolymer by ATRP. **K. B. Guice**, Y. L. Loo
- 487.** Quartz crystal microbalance (QCM) monitoring of grafting of a biotin-functionalized polymer onto an avidin monolayer. **V. L. Admiral**, G. Mantovani, J. Macpherson, D. M. Haddleton, K. Ohno, Y. Tsujii, T. Fukuda
- 488.** Bile acid-containing methacrylic polymers synthesized via living radical polymerization for biomedical applications. **E. Melia**, D. M. Haddleton
- 489.** Synthesis of Y-shaped copolymers by transition metal mediated living radical polymerization. **B. MacCreath**, D. M. Haddleton
- 490.** Preparation of polymers by living radical polymerization from bromo-2-methyl-propionamide initiators. **A. J. Limer**, D. M. Haddleton
- 491.** New pegylation method for tyrosine via a biomimetic strategy. **L. Tao**, G. Mantovani, A. J. Limer, D. Haddleton
- 492.** α -Terminally functional hydrophobic conjugates by living radical polymerization. **D. R. Sait**, S. A. F. Bon, D. M. Haddleton
- 493.** Atom transfer radical graft copolymerization of binary mixture of monomers onto cellulose. **K. C. Gupta**
- 494.** Synthesis and characterization of well-defined end-functionalized poly(N-isopropylacrylamide) with a pyrenyl group. **Y. Miura**, Q. Duan, A. Narumi, T. Satoh, H. Kaga, T. Kakuchi
- 495.** New method to determine the recombination rate constants between nitroxides and macroradicals. **D. Bertin**, B. Charleux, Y. Guillaeneuf, P. Castignolles
- 496.** Amphiphilic block copolymers PS-*b*-PEO-*b*-PS: Synthesis by ATRP and thermal behavior characterization. **D. Bertin**, T. Phan, E. Beaudoin
- 497.** Kinetic analysis of NMP: How to obtain high molar masses living controlled polystyrene. **D. Bertin**, P. Tordo, S. Marque, D. Gimes, O. Guerret, Y. Guillaeneuf, B. Luneau, P -E. Dufils
- 498.** Corrosion performance of lamellae nanostructured fluorinated organic coating applied on steel and aluminum. **D. Bertin**, Y. Massiani, F. Vacandio, M. Eyraud, V. Roche
- 499.** One step synthesis of NMP star polymer initiator for core first method. **D. Bertin**, P. Tordo, D. Gimes, O. Guerret, P -E. Dufils
- 500.** Highly labile alkoxyamines: homolysis rate constants k_d . **D. Bertin**, S. Marque, P. Tordo, D. Gimes, P -E. Dufils, Y. Guillaeneuf
- 501.** Use of a novel class of SG1-based water-soluble dialkoxyamine in nitroxide-mediated controlled-free radical emulsion polymerization. **J. Nicolas**, B. Charleux, O. Guerret, S. Magnet
- 502.** Strong improvement of nitroxide-mediated controlled-free radical polymerization of methyl methacrylate via a copolymerization approach. **J. Nicolas**, B. Charleux, O. Guerret
- 503.** Ab initio batch emulsifier-free emulsion polymerization of styrene using an oil-soluble RAFT agent. **S. J. Fréal-Saison**, S. Magnet, M. Save, B. Charleux
- 504.** Synthesis of high molar mass poly(*n*-butyl methacrylate)-*b*-polystyrene diblock copolymers by ATRP: Formation of lamellar phases in thin films. **M. Save**, B. Charleux, S. Douadi, O. Sandre, V. Cabuil, B. Hamdoun
- 505.** Synthesis of well-defined amphiphilic poly(styrene-co-acrylic acid) copolymer via nitroxide-mediated

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polymerization: Evaluation as emulsion polymerization stabilizer. **C. Lefay**, B. Charleux, M. Save, O. Guerret, S. Magnet

506. Novel approach for metallic surface-initiated atom transfer radical polymerization using electro-grafted initiators based on aryl diazonium salts. **M. Save**, A. Guillez, B. Charleux, M. Chehimi, T. Matrab, C. Perruchot, A. Adenier, E. Cabet-Deliry, J. Pinson

507. Well defined glyco-oligomers from RAFT polymerization in homogeneous aqueous media. **L. Albertin**, N. R. Cameron

508. Development of novel hydrophobic hindered acyclic nitroxides: Kinetic and ESR studies. **O. Lagrille**, N. R. Cameron, P. A. Lovell, R. Blanchard

509. DiBenzylTriThioCarbonate (DBTTC): Performances overview of a commercially available RAFT agent. **L. Couvreur**

510. Kinetic studies on activation processes for organotellurium- and organostibine-mediated living radical polymerizations. **Y. Kwak**, A. Goto, T. Fukuda, S. Yamago

511. Germanium- and tin-catalyzed living radical polymerizations of styrene. **A. Goto**, H. Zushi, Y. Kwak, T. Fukuda

512. Synthesis of poly(N-vinylcaprolactam)-block-poly(N-vinylpyrrolidone) diblock copolymer by RAFT and the formation of thermosensitive mesoglobules in water. **R. Devasia**, R. Borsali, S. Lecommandoux, R. L. Bindu, N. Mougin, Y. Gnanou

513. Chain length dependent termination rate of dodecyl acrylate via RAFT polymerization under consideration of the monomer reaction order. **A. Theis**, A. Feldermann, N. Charton, T. P. Davis, M. H. Stenzel, C. Barner-Kowollik

514. Novel trithiocarbonate RAFT agents and the synthesis of telechelic poly(n-butyl acrylate)s. **R. Wang**, C. L. McCormick, A. B. Lowe

515. Direct, controlled polymerization of a hydroxy-functional methacrylamido-monomer via RAFT in aqueous media. **C. W. Scales**, Y. A. Vasilieva, A. J. Convertine, A. B. Lowe, C. L. McCormick

516. Room-temperature polymerization of N-isopropylacrylamide via RAFT and subsequent conjugation of fluorescent labels. C. W. Scales, **A. J. Convertine**, C. L. McCormick

517. Synthesis of poly(ethylene oxide)-poly(n-butyl acrylate) block copolymers: Experiments and modeling. R. Sharma, **Y. Won**

518. Novel synthesis of cellulosic graft copolymers by reversible addition-fragmentation chain transfer (RAFT) process. **D. Roy**, J. T. Guthrie, S. Perrier

519. Triblock copolymers for functional polymeric materials: Synthesis by reversible addition-fragmentation chain transfer (RAFT) polymerization. **T. M. Legge**, S. Perrier

520. Novel one-pot synthesis of chain transfer agents for RAFT/MADIX polymerizations: Trithiocarbonates, xanthates and dithiocarbamates. **M. R. Wood**, S. Perrier

521. Microwave assisted RAFT polymerization: A novel route towards the rapid preparation of polymers of controlled molecular weight. **S. L. Brown**, S. Perrier

522. Polymer-layered silicate nanocomposites using RAFT polymerization. **N. Salem**, D. A. Shipp

523. Kinetics investigation of surface anchored raft agent mediated polymerization. **C. Li**, B. C. Benicewicz

524. Reversible addition-fragmentation chain-transfer polymerization of styrene. B. C. Benicewicz, **M. J. Nasrullah**, V. Raghunadh

525. The synthesis of poly((styrene-co-acrylonitrile)-block-(styrene-alt-maleic anhydride)) via RAFT-mediated polymerization. **J. S. Bozovic**, B. Klumperman

526. Anomalies in RAFT mediated miniemulsion polymerization. **J. B. McLeary**, M. C. Hermant, H. Matahwa, B. Klumperman, R. D. Sanderson

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- 527.** Microwave-assisted controlled radical polymerizations. **R. Hoogenboom**, F. Wiesbrock, M. A. M. Leenen, H. Zhang, U. S. Schubert
- 528.** Polymer LEGO Blocks by nitroxide mediated polymerization. **B. G. G. Lohmeijer**, U. S. Schubert
- 529.** Styrene/hydroxystyrene copolymers made via nitroxide-mediated controlled radical polymerization: Thermal properties of copolymers and the effect of copolymer addition on crystallization in polymer blends. **J. Kim**, J. M. Torkelson
- 530.** Styrene/4-hydroxystyrene random, block and gradient copolymers modified with an organic dye: Synthesis via nitroxide-mediated controlled radical polymerization and characterization of electrorheological properties. **D. Woo**, J. Kim, M -H. Suh, S -H. Lee, J. M. Torkelson
- 531.** Controlled surface modification via living radical photografting. **B. P. Harris**, A. T. Metters
- 532.** Controlled synthesis of poly(methyl methacrylate) brushes using surface-initiated photoiniferter-mediated photopolymerization. **S. B. Rahane**, S. M. Kilbey, A. T. Metters
- 533.** Radical reduction as a means for complete desulfuration of MADIX polymers. **M. Destarac**, C. Kalai, L. Petit, A. Z. Wilczewska, G. Mignani, S. Z. Zard
- 534.** Vinylogous dithiocompounds for RAFT polymerization. **M. Destarac**, I. Gauthier-Gillaizeau, C -T. Vuong, S. Z. Zard
- 535.** Dethiocarboxylation of MADIX (co)polymers. **M. Destarac**, C. Kalai, A. Z. Wilczewska, G. Mignani, S. Z. Zard
- 536.** RAFT polymerization of N-ethyl-3-vinylcarbazole and synthesis of block copolymers. **H. Mori**, S. Nakano, T. Endo
- 537.** Sequential multiphoton photopolymerization for hologram recording using a trithiocarbonate as a RAFT reagent. **L. J. Tucker**, M. Sponsler
- 538.** Influence of terminal groups on interfacial behavior and surface morphology of (X-PEO)₂-(PS-Y)₂ star copolymers. **R. Gunawidjaja**, S. Peleshanko, V. V. Tsukruk
- 539.** Synthesis and characterization of novel amphiphilic hyperbranched polymers via self-condensing vinyl polymerization. **S. Peleshanko**, R. Gunawidjaja, V. V. Tsukruk
- 540.** Synthesis and properties of asymmetric PEO-PS heteroarm star polymers. **S. Peleshanko**, R. Gunawidjaja, V. Shevchenko, S. Petrash, V. V. Tsukruk
- 541.** Preparation of polystyrene brushes on titanium oxide surface by nitroxide-mediated radical polymerization. **R. Matsuno**, H. Otsuka, A. Takahara
- 542.** Synthesis and characterization of multiblock copolymers prepared by living free-radical polymerization macroinitiator technique. H. Otsuka, **Y. Higaki**, A. Takahara
- 543.** Synthesis of well-defined copolymers with alkoxyamines in the side chain and their reversible cross-linking based on radical exchange reaction. **H. Otsuka**, Y. Higaki, A. Takahara
- 544.** One-pot synthesis of star polymer by controlled radical copolymerization of bismaleimide and an excess of styrene. G. Deng, Q. Liu, M. Cao, J. Huang, L. He, **Y. Chen**
- 545.** In situ ¹H NMR investigation of the early kinetics of RAFT-mediated polymerization of styrene in the presence of 2-dodecylsulfanylthiocarbonylsulfanyl-2-methyl propionic acid (DMP). **M. M. Guo**
- 546.** Highly-branched SMART polymers using styryl dithioate esters. **S. R. Carter**, S. Rimmer, M. Webb, A. Sturdy
- 547.** Living anionic polymerization of 4-vinylbenzocyclobutene. **G. Sakellariou**, D. Baskaran, J. W. Mays
- 548.** Synthesis and characterization of ω-functionalized multiarm star-branched polyisoprenes and poly(ethylene-co-propylene) using living anionic polymerization. **B. S. Farmer**, J. W. Mays

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549. Synthesis of primary amine terminated polymers using living anionic polymerization and characterization of polymers using MALDI-TOF mass spectrometry. **H. Ji**, D. Baskaran, J. W. Mays

550. Particle formation kinetics in RAFT controlled emulsion polymerizations. **D. Lamb**, J. Leswin, R. G. Gilbert

551. Toward Cp₂TiCl-catalyzed living radical polymerization of isoprene. **A. D. Asandei**, G. Saha

Section C

Unknown Site -- Unknown Room

Cosmetic Nanotechnology: Polymers and Colloids in Personal Care

Cosponsored with Cosponsored with Society of Cosmetic Chemists, COLL, and WCC

K. O. Havelka, S. E. Morgan, and R. Y. Lochhead, *Organizers*

6:00 - 8:00

552. Fabrication of hydratable keratin from human hair for medical applications. **C. Wu**, J. Li, R. A. Smith, S. E. Morgan, D. A. Wicks

553. Preparation and characterization of keratin coatings for orthopedic implant applications. **J. Li**, C. Wu, R. A. Smith, D. A. Wicks, S. E. Morgan

554. Solution properties of polysaccharides in water and polar organic solvents. **E. Antoniou**, M. Tsianou, P. Alexandridis

555. NMR studies of PAMAM dendrimers as "intelligent" delivery systems for drugs, cosmetics and personal care products. **I. Banyai**, M. Berka, I. Orszagh, L. P. Balogh

556. The preparation of TiO₂/CaCO₃ composite. **Y. Sheng**, B. Zhou, X. Zhao, **Z. Wang**

Section D

Unknown Site -- Unknown Room

Defects in Polymer Nanostructures

A. Karim, E. J. Amis, U. B. Wiesner, and T. P. Russell, *Organizers*

6:00 - 8:00

557. Fabrication of ultra-high density nanowires using the block copolymer nanoporous template. J. K. Kim, **J. I. Lee**, J. A. Jang, J. W. Yu

Section E

Unknown Site -- Unknown Room

Fluorine Containing Polymers

Cosponsored with FLUO

D. W. Smith Jr., W. Coggio, K. J. Wynne, B. Ameduri, and W. J. Brittain, *Organizers*

6:00 - 8:00

558. Amphiphilic semifluoroalkylated polythiophenes. **S. Watt**, D. M. Collard

559. Characterization of melt processable poly(tetrafluoroethylene). **M. Gössi**, T. A. Tervoort, P. Smith

560. Effect of aggregation states of fluoroalkyl groups on wetting properties of poly(fluoroalkyl acrylate) thin films. K. Honda, M. Morita, **H. Otsuka**, A. Takahara

561. Effect of fluorination of trifluorovinyl isopropylidenediphenyl ether copolymers. **B. K. Spraul**, J. Lui, M. McHugh, D. Perahia, D. W. Smith Jr.

562. Effects of humidity and partial neutralization on the mechanical properties of perfluorosulfonate ionomer

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membranes. **S. J. Osborn**, R. B. Moore

563. Electrospinning nanofiber membranes of poly[bis(trifluoroethoxy)phosphazene]. **A. Singh**, L. Steely, H. R. Allcock

564. Fluoropolymer functionalization of carbon particles. **M. W. Perpall**, B. Liu, S. E. Creager, D. W. Smith Jr.

565. Hydrogen bonding-directed adsorption of poly(4-vinylpyridine) to poly(trifluoroethylene) and a study of multilayer formation. **I. Anac**, T. J. McCarthy

566. Hyperbranched electro-optic polymers through A2 and B3 polymerization. **I. In**, P. Gopalan

567. New non-biopersistent fluorinated alkyl methacrylate polymer. **J. Guo**, P. Resnick, J. M. DeSimone

568. Perfluorocyclobutyl [PFCB] polymers derived from spirochromane diphenol. **S. Suresh**, B. K. Spraul, C. M. Topping, J. Jin, J. Ballato, D. W. Smith Jr.

569. Room temperature synthesis of poly(vinylidene fluoride) and poly(vinylidene fluoride-co-hexafluoropropene) under UV irradiation. **A. D. Asandei**, Y. Chen

570. Fluoropolymers at biological and marine interfaces. **C. K. Ober**, S. Krishnan, R. Ayothi, Q. Lin, M. Paik, A. Hexemer, E. J. Kramer, D. Fischer

571. Semifluorinated triblock copolymers as surface active components for multilayer marine antifouling coatings. **Q. Lin**, S. Krishnan, M. Paik, P. Busch, C. K. Ober, A. Hexemer, K. E. Sohn, E. J. Kramer, G. L. Kowalke, D. E. Wendt

572. Synthesis and characterization of perfluoroalkyl end functionalized derivatives of poly(ethylene oxide). E. Amado, **J. Kressler**

573. Synthesis and characterization of polyimides from bis(3-aminophenyl)-2,3,5,6-tetrafluoro-4-trifluoromethylphenyl phosphine oxide (mDA7FPPO). C. W. Lee, S. M. Kwak, J. H. Yeon, **T -H. Yoon**

574. Synthesis and electrochemical properties of the fluorinated polymer electrolytes. **M. Koh**, A. Yamauchi, Y. Takagawara, H. Aoyama

575. Synthesis of a fluorine-containing triblock copolymer of poly(methyl methacrylate)-b-Polyfluorostyrene-b-Poly(methyl methacrylate) by atom transfer radical polymerization. Y. S. Ko, S. T. Kim, **Y. K. Kwon**

576. Synthesis and use of a fluorinated block copolymer as steric stabilizer for the formation of ionic liquid in compressed carbon dioxide emulsions. **P. Lacroix-Desmazes**, P. Hesemann, B. Boutevin, J. J. E. Moreau

Section F

Unknown Site -- Unknown Room

Molecular Recognition Using Polymers

S. Thayumanavan and V. M. Rotello, *Organizers*

6:00 - 8:00

577. Aei: Thermodynamics and mass transfer kinetics in molecularly imprinted polymers. **H. Kim**, G. Guiochon

578. Cooperative binding of complementary alternating copolymers using molecular recognition dyad. **H. Nakade**, B. J. Jordan, V. M. Rotello

579. Directionality in supramolecular polymer architectures. **O. A. Scherman**, R. P. Sijbesma, E. W. Meijer

580. Fluorimetric transition metal ion sensing based on a terpyridine functionalized star-shaped polymer. M. A. R. Meier, **R. Hoogenboom**, U. S. Schubert

581. Heavy metal ion detection using peptide-modified hydrogel layers on a quartz crystal microbalance. J. Sheperd, V. Bhethanabotla, **R. Toomey**

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- 582.** Luminescent main chain organoboron modified polythiophenes as sensing materials. **A. Sundararaman**, R. Varughese, M. Victor, F. Jäkke
- 583.** Molecular recognition between cyclodextrins and hydrophobic domains for control of associating polymer networks. **M. Tsianou**, P. Alexandridis
- 584.** Molecular recognition by imprinted polymer nanospheres: Fundamental research and applications. **M. Herold**, G. E. M. Tovar, C. Gruber, M. Dettling, S. Sezgin, H. Brunner
- 585.** Molecularly imprinted nanoparticles. S. Roy, **J. P. Claverie**, M. J. Barasc, J. Ogier, Y. G. Durant
- 586.** Multiple hydrogen bonding in polymer surface adhesion. **K. Viswanathan**, T. C. Ward, T. E. Long
- 587.** Non-covalently functionalized block co-polymers of poly(Norbornene). **S. K. P. Nair**, M. Weck
- 588.** Novel carbohydrate-based surfactants for the preparation of imprinted silica. **D. Farnik**, N. Huesing, W. H. Binder
- 589.** Organic DNA hybrid materials: Detection capabilities and thermal properties. **J. G. Davis**, S.-J. Park, B. R. Stepp, P. Modi, D. L. F. Koh, C. A. Mirkin, S. T. Nguyen
- 590.** Poly(pseudo)rotaxane based on Cucurbit[7]uril. **Y. Ling**, V. Sindelar, A. E. Kaifer
- 591.** Preparation of molecularly surface imprinted polymeric nanoparticles for the direct detection of saxitoxin in water by quartz crystal microbalance. M. J. Barasc, J. Ogier, **Y. G. Durant**, J. P. Claverie
- 592.** Recognition-induced polymersomes: Microspheres and vesicles. **H. Xu**, O. Uzun, A. Sanyal, H. Nakade, V. M. Rotello
- 593.** Self-complementary hydrogen bonding in star-shaped polymers: The search for new constellations. **C. L. Elkins**, T. E. Long
- 594.** Self-sorting in polymers. **C. Burd**, M. Weck
- 595.** Site isolated redox behavior in flavin functionalized random polystyrene copolymers. **B. J. Jordan**, J. B. Carroll, H. Xu, B. Erdogan, L. Lee, L. Cheng, C. Tiernan, G. Cooke, V. M. Rotello
- 596.** Supramolecular three-arm star polyisobutylenes by Sharpless-type "click" reactions. **T. Roth**, P. Groh, V. Palfi, B. Iván, W. H. Binder
- 597.** Synthesis and photophysics of conjugated polymers for sensor application based on photoinduced electron transfer. **L.-J. Fan**, W. E. Jones Jr.
- 598.** Synthesis of an amphiphilic dendrimer with charge neutral hydrophilic functionality. **S. V. Aathimanikandan**, E. N. Savariar, S. Thayumanavan
- 599.** Synthesis of new class of cationic polymers for gene delivery. **R. Roy**, E. N. Savariar, S. Thayumanavan
- 600.** Template effect of polyethylene glycol for the chain CaCO₃. Y. Sheng, B. Zhou, X. Zhao, **Z. Wang**
- 601.** Toward unimolecular switchable amphiphilic biaryl-based dendrimeric micelles. **A. V. Ambade**, S. V. Aathimanikandan, S. Thayumanavan
- 602.** Variable accessibility along the dendritic backbone. **K. Sivanandan**, S. V. Aathimanikandan, S. Thayumanavan
- 603.** Virus recognition using molecularly imprinted polymer hydrogels. **L. D. Bolisay**, J. N. Culver, P. Kofinas

Section G

Unknown Site -- Unknown Room

Polymers for Bioactive Surfaces

2005 Fall meeting

Cosponsored with BIOL

J. C. M. van Hest, K. L. Kiick, and G. N. Tew, *Organizers*

J. G. Linhardt, *Organizer, Presiding*

6:00 - 8:00

- 604.** Synthesis and electropolymerization of 2-(3-thienylethyl)-3-thiopheneacetate (1). **S. Mulik**, A. Dass, C. Sotiriou-Leventis, N. Leventis
- 605.** An XPS study of pulsed plasma poly-allyl-alcohol film growth on polyurethane. **L. Watkins**, A. Bismarck, A. Brain, A. F. Lee, J. Maughan, D. Wilson, K. Wilson
- 606.** Antimicrobial blockcopolymer emulsifier for contact-active polymer suspensions and surfaces. **A. D. Fuchs**, J. C. Tiller, C. J. Waschinski
- 607.** The chemical nature of ion coordination in polymer electrolytes from solid-state NMR. **J. R. Wickham**, C. V. Rice
- 608.** Copolymer nanoparticles with activated ester surface for the facile immobilization of enzymes. **M. Herold**, G. E. M. Tovar, M. Håkanson, H. Brunner
- 609.** Design and surface characterization of peptides that bind to hydroxyapatite for biomedical applications. **L. A. Capriotti**, T. P. Beebe Jr., J. Schneider
- 610.** Immobilization of nano-sized PAMAM dendrimers onto PVDF membranes for improving hydrophilicity and biocompatibility. **G -M. Qiu**, B -K. Zhu, X -Z. Wei, **Y -Y. Xu**
- 611.** In vitro degradation of porous PHBV film. **H. Liu**, Y. T. Tesema, J. Stubbs III, D. Raghavan
- 612.** Interactions between fibrinogen and PEG polymers: A neutron scattering investigation. **P. Alexandridis**, M. Tsianou, E. Antoniou, Y. Katori, I. Singh, S. Neelamegham
- 613.** Patterned polymerizable lipid bilayer surfaces functionalized for biosensing applications. **E. Mansfield**, C. A. Aspinwall
- 614.** Plasma surface modification and characterization of POSS-based nanocomposite polymeric thin films for microfluidic devices. **B. H. Augustine**, W. C. Hughes, K. A. Zimmerman, J. S. Maidment
- 615.** Plasma-enhanced chemical vapor deposition surface patterning for biological materials. **E. R. Beckel**, J. M. Slocik, H. Jiang, J. O. Enlow, R. R. Naik, T. J. Bunning
- 616.** Polyelectrolyte multilayers for controlled delivery of multiple therapeutic agents. **H. F. Chuang**, K. C. Wood, P. T. Hammond
- 617.** Preparation of PEU/LCP composite membranes and its anticoagulation properties. **D. Huo**, C. Hou, W. Zhang, S. Zheng
- 618.** Shark inspired non-toxic coatings for non-fouling marine applications. J. F. Schumacher, T. G. Estes, M. E. Callow, D. E. Wendt, M. L. Carman, L. H. Wilson, **A. B. Brennan**
- 619.** Studies of design and synthesis of COO-PEU/LCP composite membranes in molecular level and blood compatibilities in real system. **C. Hou**, D. Huo, W. Zhang, S. Zheng, B. Chen, Y. Ren
- 620.** Surface arrays of self-assembled micro-structures based on photo-crosslinked star-shaped poly(d,l-lactide)s. **A. S. Karikari**, A. M. Rawlett, T. E. Long
- 621.** Surface biocompatibility of novel peptide-based hydrogels. **D. A. Salick**, L. A. Haines, J. K. Kretsinger, J. P. Schneider, D. J. Pochan
- 622.** Surface modification of PVDF membrane by grafting copolymerization in supercritical carbon dioxide for improving hydrophilic and anti-fouling property. **G -M. Qiu**, B -K. Zhu, **Y -Y. Xu**

2005 Fall meeting

Polymers and Materials for Defense against Chemical and Biological Warfare Agents

G. E. Lawson and J. G. Reynolds, *Organizers*

6:00 - 8:00

623. Selective molecularly imprinted polymers for fluorophosphonate nerve gases: Proof of concept. **B. S. Green**, A. Strikovskiy, I. Pergament, R. Arad-Yellin, Y. Ashani

624. Lyotropic liquid crystal: Butyl rubber nanocomposites for chemical agent protection. **X. Lu**, J. Jin, V. Nguyen, B. Elliott, D. L. Gin

625. Nerve agent surrogate hydrolysis by polyethylene glycol stabilized OPH and OPAA enzymes. **G. J. Pellar**, J. J. DeFrank

626. Chemical trapping of a mustard simulant in a fluorinated solvent using reactive monolithic columns. M. R. Gagné, **V. N. Korotchenko**

627. Hydrolysis of nerve agent surrogates by hybrid silica nanocomposite OPAA and OPH enzyme hydrogels. **I. J. Fry**, J. J. DeFrank

WEDNESDAY MORNING

Section A

Unknown Site -- Unknown Room

Controlled/Living Radical Polymerizations

Organic-Inorganic Hybrids by CRP

Cosponsored with PMSE

K. Matyjaszewski, *Organizer*

G. Moad and J. Pyun, *Presiding*

8:30 —628. RAFT copolymerization and its application to the synthesis of novel disperants/intercalants/exfoliants for polymer-clay nanocomposites. **G. Moad**, G. Li, E. Rizzardo, S. H. Thang, R. Pfaendner, H. Wermter

9:00 —629. Advances in nanostructured carbons from block copolymers prepared by controlled polymerization techniques. **T. Kowalewski**, C. Tang, M. Kruk, B. Dufour, K. Matyjaszewski

9:30 —630. Synthesis of inorganic-organic core-shell nanoparticles by the grafting of polymers from the surface of metal oxide nanoparticles using atom transfer radical polymerization. **G. Kickelbick**, D. Holzinger

10:00 —631. Synthesis of core-shell magnetic nanoparticles using controlled/living radical polymerization. B. Korth, M. Judd, B. Wong, **J. Pyun**

10:30 — Intermission.

10:40 —632. Preparation of polymer nanocomposite materials by Living Radical Polymerization using the RAFT process. **M. J. Monteiro**, M. M. Adamy, B. J. Leeuwen, A. M. van Herk, M. Destarac

11:10 —633. ATRP in microchannels. **K. L. Beers**, T. Wu, C. Xu

11:40 —634. Preparation of surface labeled nanostructures originating from labeled ATRP initiators. **S. Venkataraman**, J. Schaefer, K. L. Wooley

Section B

Unknown Site -- Unknown Room

Polymers for Bioactive Surfaces

2005 Fall meeting

Anti-microbial and Non-Fouling Surfaces

Cosponsored with BIOL

J. G. Linhardt and J. C. M. van Hest, *Organizers*

K. L. Kiick and G. N. Tew, *Organizers, Presiding*

8:30 —635. Contact-active antimicrobial surfaces. **J. C. Tiller**

9:00 —636. Preparation of biocompatible surfaces by atom transfer radical polymerization grafting and evaluation of protein adsorption. W. Feng, **S. Zhu**, J. L. Brash

9:20 —637. Hyperbranched fluoropolymer (HBFP)-poly(ethylene glycol) (PEG) composite coatings, designed as amphiphilic, complex surfaces that inhibit protein and whole organism adsorption. **K. L. Wooley**, C. S. Gudipati, J. A. Finlay, J. A. Callow, M. E. Callow

9:50 —638. Interaction of *Ulva* and *Navicula* marine algae with surfaces of pyridinium polymers with fluorinated side-chains. **S. Krishnan**, J. Finlay, A. Hexemer, N. Wang, C. K. Ober, E. J. Kramer, M. E. Callow, J. A. Callow, D. Fischer

10:10 — Intermission.

10:30 —639. Hydrophilized pyridinium bactericidal polymers. **J. P. Youngblood**, P. Sellenet, B. C. Allison, B. Applegate

10:50 —640. Protein-functionalized polymer brushes. **H -A. Klok**, S. Tugulu, A. Arnold, I. Sielaff, K. Johnsson

11:10 —641. Towards minimally fouling substrates: Surface grafting and topography. L. H. Wilson, J. F. Schumacher, J. A. Finlay, R. Perry, M. E. Callow, J. A. Callow, **A. B. Brennan**

11:40 —642. Preparation of non-fouling coatings made by chemical vapor deposition polymerization. **J. Lahann**, H -Y. Chen

Section C

Unknown Site -- Unknown Room

Cosmetic Nanotechnology: Polymers and Colloids in Personal Care

Innovations in Hair Care

Cosponsored with Society of Cosmetic Chemists, COLL, and WCC

S. E. Morgan and R. Y. Lochhead, *Organizers*

K. O. Havelka, *Organizer, Presiding*

8:30 —643. An overview of the role of polymers in hair care applications. **C. M. Rocafort**

9:00 —644. Effect of hydrophobic substitution on cationic conditioning polymers. **S. L. Jordan**, L. Kreeger, X. Zhang, T. Drovetskaya, C. B. Davis, J. Amos, S. Gabelnick

9:30 —645. Goniophotometric measurement of the luster of single hair fibers. **K. R. Ramaprasad**, K. Keis, Y. K. Kamath

10:00 — Intermission.

10:15 —646. Natural products with biological activity. **M. S. Goldstein**

10:45 —647. Nanoprobe evaluations of hydrophobin-modified hair. **S. E. Morgan**, J. Li, S. D. Benson, R. Misra, G. C. Cannon

11:15 —648. Studies on acid-swellable associative copolymer- surfactant systems. **K. Tamareselvy**

11:45 —649. Investigation of the structure of polyelectrolyte-based complex coacervates and the effects of electrolyte order of addition. **L. R. Huisinga**, R. Y. Lochhead, C. Edwards

2005 Fall meeting

Section D

Unknown Site -- Unknown Room

Fluorine Containing Polymers

Tutorial

Cosponsored with FLUO

W. Coggio, K. J. Wynne, B. Ameduri, and W. J. Brittain, *Organizers*

D. W. Smith Jr., *Organizer, Presiding*

8:00 —650. What does it take to process fluoropolymers with supercritical fluid solvents? **M. A. McHugh**

8:40 —651. Fluoropolymers for advanced technologies: Fuel cells, nano-imprint lithography and the particle foundry. **J. M. DeSimone**

9:20 —652. Fluorine containing polymers for optics: History and current opportunities. **D. W. Smith Jr.**

10:00 — Intermission.

10:10 —653. Fluorine containing polymers for fuel cell membranes. **J. E. McGrath**

10:50 —654. Environmental, health and safety impacts of fluorine-containing polymer processing. **G. Millet**

11:30 —655. Removal, recovery and recycling of fluorinated emulsifiers from waste streams and products. **A. Maurer, K. Hintzer, G. Loehr**

Combinatorial Approaches to Materials

Synthesis/Mechanical Properties

Sponsored by PMSE, Cosponsored with POLY

WEDNESDAY AFTERNOON

Section A

Unknown Site -- Unknown Room

Controlled/Living Radical Polymerizations

Bio-materials by CRP

Cosponsored with PMSE

K. Matyjaszewski, *Organizer*

D. M. Haddleton and H. D. Maynard, *Presiding*

1:30 —656. Tandem living radical polymerization and click reactions catalyzed by N-alkyl-2-pyridylmethanimine/Cu(I)Br complexes. **D. M. Haddleton, L. Tao, G. Mantovani, A. J. Limer, V. Ladmiraal, G. Chen**

2:00 —657. Hybrid block copolymers prepared via 1, 3-dipolar cycloaddition reactions. **J. C. M. van Hest, J. Opsteen, M. Roeters**

2:30 —658. Synthesis of biotinylated polymers by atom transfer radical polymerization and bioconjugate formation. **D. Bontempo, R. C. Li, H. D. Maynard**

2005 Fall meeting

3:00 —659. Glycopolymers with branched architectures: Sugar balls and sugar sticks. **A. H. E. Müller**, S. Muthukrishnan, M. Drechsler, H. Mori

3:30 —660. Controlled/living polymerizations of cyclic and vinyl monomers derived from amino acids. **T. Endo**, A. Nagai, B. Ochiai, H. Mori

4:00 — Intermission.

4:10 —661. Solution self-assembly of synthetic copolymers bearing complementary nucleic acid functionalities. **J -F. Lutz**, R. Nehring, A. F. Thünemann

4:30 —662. Macromolecular chimera via controlled radical polymerization techniques. **H. G. Börner**, H. Rettig, M. G. J. ten Cate, J -F. Lutz, E. Krause

4:50 —663. Controlled synthesis of polyacrylamides containing amino acid moieties via RAFT and their stimuli-responsive properties. **H. Mori**, K. Sutoh, H. Iwaya, A. Nagai, T. Endo

5:10 —664. Well defined bioactive polymers by RAFT polymerization. **N. R. Cameron**, S. G. Spain, J. P. M. Bayley, H. Watson, A. Dureault, J. M. Sanderson, J. C. Thies, L. Ayres, J. C. M. van Hest

Section B

Unknown Site -- Unknown Room

Polymers for Bioactive Surfaces

Controlled Interactions at Surfaces

Cosponsored with BIOL

K. L. Kiick and G. N. Tew, *Organizers*

J. C. M. van Hest and J. G. Linhardt, *Organizers, Presiding*

1:30 —665. Polymer based bio-adhesion mimics: Recognition and selection in real time. **M. M. Santore**, J. Nam, N. Kozlova

2:00 —666. Changes in structure and dynamics of lipoteichoic acid caused by surface adsorption. **C. V. Rice**, J. R. Wickham

2:20 —667. Biofunctional patterning of ultrathin star-PEG coatings. **M. Moeller**, J. Groll, W. Haubensak

2:50 —668. Polyelectrolyte Multilayer as bioactive surfaces for cell co-culture. **S. Kidambi**, I. Lee, C. Chan

3:10 — Intermission.

3:30 —669. Controlled surface modification using functional monomers to create bioactive surfaces exhibiting precisely controlled gradients in ligand density. B. P. Harris, **A. T. Metters**

3:50 —670. Polymer brushes for responsive biocompatible surfaces. **W. T. S. Huck**

4:20 —671. Bioactive surface gradients to control surface adhesion. **M. L. Becker**, N. D. Gallant, L. Henderson, E. J. Amis

4:50 —672. Chemoselective grafting of poly(ethylene oxide) onto biodegradable polyester. **I. Taniguchi**, W. A. Kuhlman, A. M. Mayes, E. W. L. Chan, L. G. Griffith

Section C

Unknown Site -- Unknown Room

Cosmetic Nanotechnology: Polymers and Colloids in Personal Care

Innovations in Eye and Skin Care

2005 Fall meeting

Cosponsored with Society of Cosmetic Chemists, COLL, and WCC

K. O. Havelka and S. E. Morgan, *Organizers*

R. Y. Lochhead, *Organizer, Presiding*

1:30 —673. Silicone fluids in shower/bath products. **J. L. Kerschner**

2:00 —674. Beauty from contact lenses beyond vision correction. **M. Quinn**, W. Bassett

2:30 —675. Cosmetic contact lenses. **D. Ruscio**, J. C. Salamone, D. Jani, J. F. Kunzler

3:00 — Intermission.

3:15 —676. Nano zinc oxide sunscreen formulations: To nano or not. **S. Hunt**, T. Meyer

3:45 —677. Synthesis and characterization of nano-carriers containing Vitamin E for applications in cosmetics and pharmaceuticals preparations. **R. Kumar**, R. Tyagi, V. S. Parmar, J. Kumar, A. C. Watterson

4:15 —678. Associative polymers and its applications in the formulation of personal care products. **B. Xu**

4:45 —679. Silicone compounds: Versatile polymers. **A. J. O'Lenick Jr.**

Section D

Unknown Site -- Unknown Room

Fluorine Containing Polymers

Photonics and Electronics Application

Cosponsored with FLUO

D. W. Smith Jr., W. Coggio, K. J. Wynne, and W. J. Brittain, *Organizers*

B. Ameduri, *Organizer, Presiding*

1:30 —680. A novel copolymeric system of perfluoro-1,3-dioxolane compounds. **Y. Okamoto**, Y. Yang, W. Liu, F. Mikeš, Y. Koike

1:50 —681. Exceptional photonic properties through controlled self-assembly of fluoro-dendrimers. **A. K-Y. Jen**, J. Luo, T. D. Kim, B. Chen, J. W. Kang, S. Hau

2:15 —682. Matrix disorder effects in near-infrared absorption loss of FTC-like NLO chromophore in rigid amorphous non-carbonate aromatic hosts. **R. R. Barto**, C. W. Frank, P. V. Bedworth, S. Ermer, R. E. Taylor, D. W. Smith Jr., J. Ballato

2:40 —683. Branched fluorinated azo-benzene chromophores in low-loss electro-optic composites. **P. Gopalan**, I. In, V. E. Campbell

3:00 — Intermission.

3:10 —684. Structure development in fluorinated holographic nanocomposite films. **M. D. Schulte**, S. J. Clarson, L. V. Natarajan, C. A. Guymon, T. J. Bunning

3:30 —685. Synthesis and properties of perfluorocyclobutyl (PFCB) polymers for light emission. **A. R. Neilson**, S. Suresh, B. K. Spraul, J. M. Ballato, D. W. Smith Jr.

3:50 —686. Synthesis and characterization of a new fluorinated ester substituted and terminal functionalized polythiophene. S. Thomas, C. Zhang, **S-S. Sun**

4:10 —687. Functionalized trifluorovinyl phenyl ethers and the effect on reactivity. **B. K. Spraul**, S. Suresh, D. W. Smith Jr.

4:30 —688. Perfluorinated amphiphilic polymers as nanoprobes for imaging and delivery of therapeutics for cancer. **R. Kumar**, R. Tyagi, V. S. Parmar, A. C. Watterson, J. Kumar, J. Zhou, M. Hardiman, C. K. Colton

2005 Fall meeting

Combinatorial Approaches to Materials

Coatings and Thin Films

Sponsored by PMSE, Cosponsored with POLY

THURSDAY MORNING

Unknown Site -- Unknown Room

Section A

Controlled/Living Radical Polymerizations

Industrial Applications

Cosponsored with PMSE

K. Matyjaszewski, *Organizer*

O. Guerret and R. Richard, *Presiding*

8:30 —689. New all-acrylic block copolymers manufactured by a NMP industrial process. **O. Guerret**

9:00 —690. Maleic anhydrides in stable free radical polymerization: A handle for controlled polymers and structures. **B. Keoshkerian**

9:30 —691. Nitroxide-mediated synthesis of acrylic block copolymers and their use as coating additives. **F. O. H. Pirrung**, C. Auschra

10:00 —692. Reactive block copolymers as versatile compatibilizers. **A. González-Montiel**, L. Flores-Santos, E. Saldivar-Guerra, G. Fuentes-Arciniegas, A. Sánchez, V. H. Vertiz

10:30 — Intermission.

10:40 —693. Evaluation of acrylate-based block copolymers prepared by atom transfer radical polymerization as matrices for paclitaxel delivery from coronary stents. **R. E. Richard**, M. Schwarz, S. Ranade, K. Chan, K. Matyjaszewski, B. Sumerlin

11:10 —694. Chromatographic stationary phases by ATRP: Biomolecule separations on a pDMAEMA phase made by surface-initiation. **P. McCarthy**, L. Bombalski, N. V. Tsarevsky, J. R. Thayer, D. Shimmin, K. Matyjaszewski, N. Avdalovic, C. Pohl

11:40 —695. Synthesis and characterization of polyalkylmethacrylate block copolymers and their application in high performance lubricants. **M. A. Mueller**, T. Stoehr, B. Eisenberg, J. M. Bollinger, H. A. Spikes, K. Topolovec-Miklozic

Unknown Site -- Unknown Room

Section B

Polymers for Bioactive Surfaces

Surfaces for Therapeutic Applications

Cosponsored with BIOL

J. C. M. van Hest and G. N. Tew, *Organizers*

J. G. Linhardt and K. L. Kiick, *Organizers, Presiding*

8:30 —696. Drug eluting coatings for paclitaxel delivery from coronary stents. **R. E. Richard**

9:00 —697. Synthesis and characterization of bioactive peptide-polymer conjugates. **N. R. Washburn**, S. A. Bencherif

2005 Fall meeting

9:20 —698. Regenerative hemi-arthroplasty of the shoulder glenoid: A polymer's journey from concept to application. **H. Pedrozo**

9:50 —699. Stimulus-responsive elastin-like polypeptides as coatings for microcantilevers: Applications for sensing and actuation. **A. Valiaev**, N. I. Abu-Lail, D. W. Lim, A. Chilkoti, S. Zauscher

10:10 — Intermission.

10:30 —700. Mucin interactions with biomaterial surfaces. A. A. Feiler, T. Sandberg, **K. D. Caldwell**

11:00 —701. Biomolecules supported on ultra-high specific surface fibers. **Y -L. Hsieh**

11:20 —702. Covalent protein immobilization on photo-polymerized highly porous monoliths. **J. C. Thies**, S. Pierre, J. C. M. van Hest, E. E. Akpa, N. R. Cameron, A. Dureault, T. Michon, N. Carette, R. Weberskirch

11:50 —703. Polylactide surface modification: Branched architectures for bioactive surfaces. A. V. Janorkar, E. W. Fritz Jr., K. J. L. Burg, A. T. Metters, **D. E. Hirt**

Section C

Unknown Site -- Unknown Room

General Papers: Synthesis and Characterization

D. Garcia, *Organizer*

A. Biswas, *Presiding*

8:00 —704. Emulsion polymerization of functionalized norbornenes and oxanorbornenes. **J. F. Craymer**, E. B. Coughlin

8:20 —705. Extending the reactivity of N-heterocyclic carbenes to polymerization of functional and biomimetic monomers. **R. C. Pratt**, A. P. Dove, B. G. G. Lohmeijer, D. A. Culkun, R. M. Waymouth, J. L. Hedrick

8:40 —706. Preparation of novel functionalized aliphatic polyesters through condensation polymerization. **D. A. Olson**, V. V. Sheares

9:00 —707. Synthesis and characterization of novel photoconducting polysiloxanes containing azomethine moieties. **I. A. Mohammed**, L. K. W

9:20 —708. Asymmetric polymerizations initiated by cationic zirconocene complexes possessing chiral counter anions. **H -S. Lee**, B. M. Novak

9:40 —709. Know what's in your bottle: Ring opening metathesis polymerization in aqueous medium by simple ruthenium complex. **K. Seto**, L. Sall, J. D. Martin, B. M. Novak

10:00 —710. Synthesis, characterization, and evaluation of methacrylate derivatives of oligo-ether carbonate diols. **S. A. Bencharif**, J. M. Antonucci, K. S. Wilson, E. A. Wilder, D -W. Liu

10:20 —711. New methodology for primary amine functionalization of polystyrenes via hydrosilation reactions between Si-H terminated polystyrene and allylamine derivatives. R. Quirk, **H. Kim**, M. J. Polce, C. Wesdemiotis

10:40 —712. Time-dependent self-organization and morphology development in segmented polyurethanes. **I. Yilgor**, E. Yilgor, O. Tezgel, N. Uslu, H. Ozhalici, E. Unsal, G. Guler, G. L. Wilkes, D. Klinedinst

11:00 —713. Biodegradable poly(ester urethane)s consisting of poly[(R)-3-hydroxy butyrate] and poly(ethylene glycol): Synthesis, characterization and mechanical property study. **X. Li**, X. J. Loh, K. Wang, J. Li, C. He

11:20 —714. Iptycene containing polymers: Synthesis and properties of porous thin-film materials. **J. P. Amara**, T. M. Swager

2005 Fall meeting

11:40 —715. Fast living cationic polymerization in the presence of an added base: One-second polymerization reaction. **S. Kanaoka**, T. Yoshida, A. Kanazawa, S. Aoshima

Section D

Unknown Site -- Unknown Room

Fluorine Containing Polymers

Surface and Interfacial Phenomenon

Cosponsored with FLUO

D. W. Smith Jr., W. Coggio, B. Ameduri, and W. J. Brittain, *Organizers*

K. J. Wynne, *Organizer, Presiding*

8:30 —716. Synthesis and film formation of stable non-spherical F-containing colloidal particles in the presence of phospholipids. A. Singh, W. R. Dreher, **M. W. Urban**

8:55 —717. Recent developments in POSS fluoropolymers. **J. M. Mabry**, A. Vij, S. T. Iacono, W. Grabow

9:20 —718. Fluorine-containing polyphosphazenes as hydrophobic and superhydrophobic materials. **H. R. Allcock**, A. Singh, L. Steely

9:45 —719. Contraphilic wetting behavior of polyurethanes containing polyoxetane soft blocks. **U. Makal**, L. J. Gamble, S. L. Golledge, K. J. Wynne

10:05 —720. Surface studies of hybrid materials from silsesquioxanes and perfluorocyclobutyl polymers. S. T. Iacono, **S. C. Ligon Jr.**, J. M. Mabry, A. Vij, D. W. Smith Jr.

10:25 — Intermission.

10:35 —721. Tribological properties of fluorinated self-assembled monolayers. C. D. Lorenz, **G. S. Grest**, M. E. Chandross, M. J. Stevens, E. B. Webb III

10:55 —722. Synthesis and characterization of polyurethanes containing 2,2-substituted-1,3-propylene oxide soft blocks having -CF₃ AND -CF₂H terminated side chains. **P. Kurt**, K. J. Wynne

11:15 —723. Grafting of poly(2,2,2-trifluoroethyl methacrylate) from flat silicon wafer by surface-initiated ATRP. **R. Chen**, W. Feng, S. Zhu

11:35 —724. Interfacial effects on semi fluorinated olymers: Competition between low interfacial energies and confinement. **D. Perahia**, T. Rakchart, H. Kim, D. W. Smith Jr., S. Sinha

11:55 —725. Amphiphilic block copolymers having water soluble and perfluoroalkyl-group containing blocks. **J. Kressler**, S. Kaiser

12:15 —726. Fluoropolymer binder molecular weight properties via size exclusion chromatography with universal calibration. **W. A. Rodin**

Combinatorial Approaches to Materials

Microfluidics and Formulation

Sponsored by PMSE, Cosponsored with POLY

THURSDAY AFTERNOON

Unknown Site -- Unknown Room

Controlled/Living Radical Polymerizations

Industrial Applications

Cosponsored with PMSE

K. Matyjaszewski, *Organizer*

W. Lau and M. Destarac, *Presiding*

1:30 —727. Inkjet colorants from surface-initiated ATRP. **E. G. Burns**, J. A. Belmont, T. Liu, J. Gough-Belleau

2:00 —728. New polyolefin hybrids via controlled radical polymerization. **N. Kashiwa**

2:30 —729. Development of new polyolefin hybrids through the combination of metallocene catalysis with living radical polymerization. **T. Matsugi**, S.-I. Kojoh, N. Kawahara, S. Matsuo, H. Kaneko, T. Onogi, N. Kashiwa

3:00 —730. Recent advances in the MADIX process. **M. Destarac**, W. Bzducha, S. Z. Zard

3:30 —731. Direct synthesis of hydrophilic star-like polymers and nanogels by MADIX. **D. Taton**

4:00 —732. Controlled radical polymerization by carboxyl-terminated dithiocarbamates and xanthates. **J. T. Lai**, R. Shea

4:30 —733. Controlled structure polymers by emulsion polymerization. **W. Lau**, P. R. Van Rheenen, K. A. Bromm, D. M. Fasano, T. R. Tepe

5:00 — Concluding Remarks.

Unknown Site -- Unknown Room

Polymers for Bioactive Surfaces

Anti-microbial and Non-fouling Surfaces

Cosponsored with BIOL

J. G. Linhardt and K. L. Kiick, *Organizers*

J. C. M. van Hest and G. N. Tew, *Organizers, Presiding*

1:30 —734. Novel approach towards versatile and robust nonfouling coatings. **P. F. Holmes**, E. P. K. Currie, J. C. Thies, W. Norde, M. A. Cohen Stuart

1:50 —735. Antimicrobial coatings via surface modifying additives. **K. J. Wynne**, U. Makal, L. Wood, D. Ohman

2:20 —736. Novel AgBr nanoparticle containing antibacterial composites. **V. Sambhy**, M. M. MacBride, B. R. Peterson, A. Sen

2:40 —737. Fouling release and antifouling coatings derived from thermoreversible gels. **J. Texter**

3:10 —738. Preparation of transparent antifouling coatings by nanoencapsulation of an antifouling agent in a transparent matrix. E. B. Cabane, M. Zhang, **J. P. Claverie**

3:30 —739. Surface-attached polymer networks: Versatile substrates for the control of protein adsorption and cell adhesion. B. Berchtold, O. Prucker, **J. Ruhe**

3:50 —740. Study of bioactive surfaces for antifouling marine coating. **F. Faÿ**, I. Linossier, V. Langlois, D. Haras, K. Vallée-Rehel

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4:10 —741. Wettability of polymer brushes and gels by good solvents. **M. A. Cohen Stuart**, F. A. M. Leermakers

Section C

Unknown Site -- Unknown Room

General Papers: Synthesis and Characterization

D. Garcia, *Organizer*

Y. Yang, *Presiding*

1:00 —742. Synthesis of a biocompatible triblock copolymer: PEG-PLLA-PGLu. F. Collette, **J. P. Claverie**

1:20 —743. Synthesis of poly(amino isoprene)-b-poly(ethylene glycol) as gene delivery vectors. **Y. Yang**, V. V. Sheares

1:40 —744. Templated ATRP of diaminopyrimidine-based monomer in the presence of uracil-containing polymer. **H. Tang**, J. Sun, M. Radosz, Y. Shen

2:00 —745. Unique method for the reaction of 1,2-disubstituted vinyl monomers. **S. M. Washburn**, J. Lauterbach, C. M. Snively

2:20 —746. Synthesis and characterization of electronic variations of ortho-phenylene ethynylene oligomers. **T. V. Jones**, M. Slutsky, G. N. Tew

2:40 —747. Synthesis and characterization of phosphonium-based telechelic polyester ionomers. **S. Unal**, M. G. McKee, D. J. Massa, T. E. Long

3:00 —748. Kinetics of free-radical aqueous phase polymerizations of water-soluble monomers. **S. Beuermann**, M. Buback, P. Hesse, S. Kukuckova, I. Lacík

3:20 —749. Synthesis and encapsulation-release property of star-shaped polylactide having hyperbranched D-Mannan as a core. **T. Satoh**, M. Tamaki, Y. Kitajyo, T. Imai, H. Kaga, T. Kakuchi

3:40 —750. Synthesis of comb polymers based on poly(maleic anhydride-co-a-olefin) and their influence on paraffin crystalization. **X. Guo**, R. K. Prud'homme

4:00 —751. Synthesis and characterization of biomimetic polystyrene sulfonate combs. **C. M. Fernyhough**, A. J. Ryan, T. A. Waigh, A. Papagiannopoulos

4:20 —752. Trimethylboroxine/TMA as cocatalyst for olefin polymerization. **R. Karunakaran**

4:40 —753. Comonomer effect on polymerization of ethylene and attained LLDPE resins prepared by metallocene catalyst. **H. Hong**, T. C. Chung, R. W. Lee

Section D

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Fluorine Containing Polymers

Fluoropolymer Materials and Synthesis

Cosponsored with FLUO

D. W. Smith Jr., W. Coggio, K. J. Wynne, and W. J. Brittain, *Organizers*

B. Ameduri, *Organizer, Presiding*

1:30 —754. Recent advances in the synthesis of functionalized fluorocopolymers as engineering materials. **G. K. Kostov**, B. Ameduri, B. Boutevin

1:55 —755. Fluorinated ion-containing polymers for PEM fuel cells and lithium batteries: The versatile sulfonimide

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function as a route to novel materials. **D. D. DesMarteau**

2:15 —756. Alteration of membrane properties of perfluorosulfonate ionomers using solution and melt processing procedures. **R. B. Moore**, A. K. Phillips, M. W. Urban, W -S. Bae

2:35 —757. Common and uncommon processing schemes for poly(tetrafluoroethylene). **T. A. Tervoort**, M. Gössi, P. Smith

2:55 —758. Plasma fluoropolymers: Molecular structure and properties. **M. S. Silverstein**

3:15 —759. Piezoelectric vinylidene-fluoride based polymers for use in space environments. **T. R. Dargaville**, R. L. Clough, M. Celina

3:35 —760. Effect of fluorination on the strength of pi-pi interactions in copolymerizations and copolymers of styrene with fluorinated styrenes. **C. Pugh**, M. Paz-Pazos, C. N. Tang

3:55 —761. Anionic synthesis of perfluoroalkyl-substituted polymers. **R. P. Quirk**, H. Kim, S. Roy Chowdhury, C. Wesdemiotis, M. J. Polce

4:15 —762. Synthesis and characterization of polyimide membranes materials containing fluorinated groups for pervaporation of n-heptane/thiophene mixtures. L. Wang Jr., **J. Li Sr.**, Z. Zhao Sr., C. Chen Sr.

4:35 — Concluding Remarks.