2005 Spring NATIONAL ACS MEETING
SAN DIEGO (March 13-17, 2005)

Program Meeting Chair: Doug Kiserow

Deadline for Abstracts and Polymer Preprints: November 4, 2004.* (note date change)
*for general papers and some symposia (some symposium organizers may set an earlier deadline).

Biological and Synthetic Macromolecules for Emerging Nanotechnologies
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Biomimetic Polymers
D. T. McQuade, Department of Chemistry and Chemical Biology, Cornell University, Baker Laboratories, Ithaca, NY 14853, 607 254-4550, fax 607 255-4137, e-mail: dtm25@cornell.edu

Carbon Nanotubes, Polymers, and Complex Fluids
F. Papadimitrakopoulos, Nanomaterials Optoelectronics Laboratory, Polymer Program, Institute of Materials Science, Department of Chemistry, University of Connecticut, 97 North Eagleville Rd, U-3136, Storrs, CT 06269, 860-486-3447, fax 860-486-4745, e-mail: papadim@mail.lms.uconn.edu; W. T. Ford, Department of Chemistry, Oklahoma State Univ, PS 107, Stillwater, OK 74078, 405-744-5946, e-mail: wtford@okstate.edu

Degradable Polymers and Materials
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Polymer Surfaces and Interfaces
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Smart Polymer Films, Composites, and Devices
G. A. Gaddy, Sensors and Electron Devices Directorate, United States Army Research Laboratory, 2800 Powder Mill Road, AMSRD-ARL-SE-L (Gaddy), Adelphi, MD 20783, 301-394-5727, e-mail: ggaddy@arl.army.mil; M. Bratcher, AMSRD-ARL-WM-MA, Army Research Laboratory, Building 4600, Aberdeen, MD 21005, 410-306-1912, e-mail: mbratche@arl.army.mil; M. D. Alexander Jr., AFRL/MLBP, AFRL,
DIVISION OF POLYMER CHEMISTRY

Times, days, and paper numbers may not be final.

C. A. Guymon, Program Chair

SUNDAY MORNING

Marriott -- Salon I&J

Section A

Polyelectrolytes and Polyampholytes: From Theory to Application

Tutorial

C. L. McCormick, Organizer
W. T. Ford, Organizer, Presiding

8:30 — 1. Polyelectrolyte solutions. Phenomena and interpretation. H. Morawetz

9:10 — 2. Applications of polyelectrolytes in aqueous media: Tutorial. R. S. Farinato


10:50 — 5. An overview of amphiphilic polyelectrolytes: Characterization of their associative properties and self-assembled nanostructures in aqueous media. Y. Morishima

11:20 — 6. Theoretical models of polyelectrolytes and polyampholytes. M. Rubinstein

Marriott -- Salon H

Section B

General Papers

Polymer Synthesis

D. Garcia, Organizer
S. Harrisson, Presiding

8:00 — 7. Synthesis of strontium titanate/polyaniline nanocomposites and the study of their electrorheological effect. K. Su, N. L. Yang

8:40 — Synthesis and characterization of substituted oligomers of phenylene ethynlenes. S. Percec, R. Getty, R. H. French, S. Lustig

9:00 — Synthesis and characterization of novel cyclosiloxanes and their self- and co-condensation with silanol-terminated polydimethylsiloxane. J. Daum, G. Erdödi, J. P. Kennedy


9:40 — Room-temperature atom-transfer radical polymerisation of methacrylates in ethylene glycol solvents. S. C. Moratti, S. M. Kimani

10:00 — Production of ω-primary amine functionalized polymers by atom transfer radical polymerization. S. Harrisson, K. L. Wooley

10:20 — Block copolymers by the conversion of living lithium anionic polymerization into living ruthenium ROMP. T. C. Castle, E. Khosravi, L. R. Hutchings


11:00 — AEI: End functionalized poly(3-alkylthiophenes) as building blocks for the synthesis of block copolymers. M. Jeffries-EL, M. C. Iovu, E. E. Sheina, G. Sauvé, R. D. McCullough

11:20 — Hyperbranched polymer synthesis by controlled termination in an anionic polymerization of 4-(chlorodimethylsilyl)styrene. T. Huang, D. M. Knauss


Marriott -- Salon G

Polymer Science of Everyday Things

C. Pugh, R. S. Moore, and A. B. Salamone, Organizers
D. Bott and K. J. Wynne, Organizers, Presiding

8:30 — Pet calves: The science of drums. N. Clarke

8:50 — The science of Bose sound. B. Lituri

9:10 — Chemistry and the Stradivarius. J. Nagyvary

10:30 — The acoustic guitar: From classical to Indie rock. S. K. Pollack

11:10 — Reeds and lips as vibrators (or "motor lips and vibrators"). T. C. B. McLeish

11:50 — Polymers and guitars: Sights and sounds. D. Bott, G. E. Wnek

Emerging Frontiers in Polyolefins
2005 Spring Meeting

Tutorial

_Cosponsored with SPE, and PMSE_

SUNDAY AFTERNOON

Marriott -- Salon I&J

**Polyelectrolytes and Polyampholytes: From Theory to Application**

**Physical Properties**

W. T. Ford and C. L. McCormick, _Organizers_
V. Kabanov and F. M. Winnik, _Presiding_

1:30 — 25. Polyelectrolyte solution rheology. S. Dou, **R. H. Colby**

2:00 — 26. Study of polyelectrolyte intrinsic viscosity vs. solution ionic strength: Experiment and theory. **T. S. Rushing**, R. D. Hester


3:10 — Intermission.


4:55 — 33. Ionic conductivity, electrochemical and viscoelastic properties of network single ion conductors based on polyepoxide ethers and lithium bis(allylmalonato)borate. **X. G. Sun**, J. B. Kerr, G. Liu, C. L. Reeder, Y. Han

Marriott -- Salon H

**Polymers in Dental Materials**

**New Materials and Analytical Approaches**

J. M. Antonucci, _Organizer_
J. W. Stansbury, _Organizer, Presiding_

1:30 — Introductory Remarks.
2005 Spring Meeting


2:55 — Intermission.


4:00 — 40. Simultaneous characterizations of polymerization kinetics and volume shrinkage in dimethacrylate/divinyl ether hybrid systems. Y. Lin, J. W. Stansbury


4:45 — 42. Effect of external heating during photopolymerization on structure and properties of dental resins. M. Trujillo, J. W. Stansbury

Marriott -- Salon G

Polymer Science of Everyday Things

K. J. Wynne, D. Bott, and C. Pugh, Organizers
R. S. Moore and A. B. Salamone, Organizers, Presiding

1:30 — 43. Polymers and the art of communication: from electronics and photonics to displays and storage media. E. Reichmanis

2:10 — 44. Polymers, particles and pits: The evolution of recording media. A. J. Ryan

2:50 — 45. Electronic polymers and nanoscience - smart tags. A. G. MacDiarmid, J. Von Ehr

3:30 — 46. Boosting lithium-ion batteries. M. Burchill

4:10 — 47. Polymeric materials in wireless telecommunication devices. G. Kim

Marriott -- Salon K

General Papers

Polymer Characterization

D. Garcia, Organizer
S. Manohar, Presiding

1:00 — 48. NMR investigation on the complexation of PPI-3 with zinc (II) ions. M. Chai, M. Ignash, A. K. Holley

1:20 — 49. 3D-NMR characterization of benzyl ketone end groups of a polystyrene macroinitiator. F. J. Wyzgoski, S. K.
2005 Spring Meeting

Sahoo, T. V. Holland, H. J. Harwood, P. L. Rinaldi


2:00 — 51. Emergent nanostructures in conducting polymers. S. K. Manohar, X. Zhang, A. Wu, H. Kolla

2:20 — 52. Chemical synthesis of carbon microbeads. L. Ding, S. V. Olesik

2:40 — 53. Anomalous phase separation in micro-tubes. X. Wang, N. Mashita


3:20 — 55. Sol-gel derived hybrid nanocomposites in porous semicrystalline polymers. S. H. Jain, H. Goossens, F. Picchioni, M. van Duin, P. Lemstra

3:40 — 56. Environmental aging effects on poly(ester-urethane) and poly(vinyl chloride-co-chlorotrifluoroethylene) polymeric binders. W. A. Rodin

4:00 — 57. Change of rheological properties of polystyrene-b-poly(ethylene-alt-propylene)/squalane solutions by sulfonation. Z. Liu, M. T. Shaw

4:20 — 58. Withdrawn.


Emerging Frontiers in Polyolefins

Catalysts/Processes

Cosponsored with SPE, and PMSE

SUNDAY EVENING

Pennsylvania Convention Center -- Hall D

General Papers

Polymer Synthesis and Characterization

D. Garcia, Organizer

5:00 - 7:00

60. Synthesis and characterization of amphiphilic poly(beta-alanine-block-beta-n-butylpeptiod). H. Xu, N. L. Gall, L. Jia

61. Template synthesis of a novel mesoporous cross-linked sulfonated poly(ether ether ketone) membrane. C. Liu, J. Wang, J. Economy

62. Synthesis of diphenylethynyl diphenylether and study of curing reaction. F. Wang, J. Huang, F. Huang

63. Living cationic polymerization of various polar functional monomers in the presence of added bases. M. Yonezumi, T. Tsujino, S. Sugihara, S. Kanaoka, S. Aoshima
64. Precision synthesis of poly(vinyl ether)s for sensitive UCST-type phase separation in various solvents. K. I. Seno, M. Inaoka, S. Kanaoka, S. Aoshima

65. Precision synthesis of stimuli-responsive star-shaped polymers by living cationic polymerization. T. Shibata, S. Kanaoka, S. Aoshima

66. Synthesis of block copolymers with azobenzene for photo-responsive and new class of surface modification. T. Yoshida, S. Kanaoka, S. Aoshima

67. Precision synthesis and thermosensitive behavior of diblock and triblock copolymers of vinyl ethers. K. Nishikawa, Y. Hirabaru, S. Kanaoka, S. Aoshima

68. A novel optically active rod-coil-rod triblock copolymer forms vesicles in dioxane/water. J. Zhang, Y. Yu, X. Wan, X. Chen, Q. Zhou


73. Synthesis of well-defined DNA-base containing polymers by ATRP. H. Tang, S. Ding, M. Radosz, Y. Shen


75. Polymerization of styrene from multiwall carbon nanotubes. B. Cheng, Y. Li, C. Shen


77. Polymer grafting and cross-linking based on radical exchange reaction of alkoxyamines. H. Otsuka, Y. Higaki, A. Takahara

78. Synthesis of a ferrocenylmethylphosphine-containing polymer. Q. S. Hu, C. G. Dong, Z. Y. Tang

79. Amphiphilic poly(meta-phenylene): A novel conjugated polysoap; a possible foldamer? A. Son, S. Ramakrishnan


83. Synthesis and characterization of substituted ortho-phenylene ethynylene oligomers. G. N. Tew, T. V. Jones, R. Laos


86. Use of 9-bromoanthracene photodimers in the atom transfer radical polymerization of styrene. A. C. Roof, L. J. Bayne, E. S. Tillman
87. Synthesis of gradient copolymer brushes via surface initiated atom transfer radical copolymerization. C. Xu, T. Wu, C. M. Drain, J. D. Batteas, K. L. Beers

88. Synthesis and characterization of terpyridine-containing polymer with block-random architecture via RAFT polymerization. K. Aamer, G. N. Tew

89. Iron diimine complexes: Robust, low toxic catalysts for atom transfer radical polymerization (ATRP). V. C. Gibson, R. K. O'Reilly

90. Synthesis of star block copolymers via SR&NI ATRP in miniemulsion. K. Min, M. Li, N. M. Jahed, K. Matyjaszewski

91. Reversible addition-fragmentation chain-transfer polymerization of t-butyl acrylate. B. C. Benicewicz, M. J. Nasrullah, R. Vajjula

92. Random and perfectly alternating poly(ethylene oxide)-polyisobutylene amphiphilic conetworks. G. Erdödi, B. Iván


95. Connecting polymeric fragments by Sharpless-type click-reactions. W. H. Binder, D. Machl, C. Kluger

96. Sidechain-functionalized poly(norbornenes) bearing new hydrogen bonding motives via ROMP. C. Kluger, W. H. Binder


98. Controlled copolymerization of vinyl acetate with α-olefins by degenerative transfer. S. Borkar, A. Sen


100. Synthesis and characterization of a methyl-substituted ortho-para-polyaniline derivative via palladium catalyzed C-N coupling. K. A. Cutler, T. Y. Meyer


103. Copolymerization of methyl acrylate and methyl methacrylate with alpha-olefins in the presence of scandium(II) triflate. M. L. Majcher, A. Sen

104. Encapsulation of a redox-responsive guest by a modified poly(propyleneimine) dendrimer. W. Ong, R. McCarley


106. Selective and sequential nucleophilic aromatic substitution reaction for the syntheses of linear and hyperbranched poly(arylene ether)s. Y. J. Kim, S. Y. Kim

107. Synthesis and characterization of a novel phenoxy resin containing biphenyl groups. C. Hongli, N. Hui


109. Distribution of carboxyl groups on micron-size crosslinked microspheres obtained by dispersion copolymerization. H. Zhang, H. Huang, R. Lv, M. Chen
2005 Spring Meeting

110. Particle size distribution and morphology of alkoxy silane-functionalized acrylic copolymer latexes. S. Huang, D. Fan, Y. Lei, **H. Huang**

111. Optical properties of an amorphous ter-polysilane containing vinyl side groups. S. Huang, Y. Lei, J. Zhu, F. Yu, **H. Huang**

112. Controlled alternating copolymerization of methyl acrylate and 1-alkene with degenerative transfer polymerization. **S. Liu, B. Gu, D. Leber, A. Sen**

113. Nitroxide mediated copolymerization of methyl acrylate with 1-alkenes and norbornenes. **B. Gu, S. Liu, J. D. Leber, A. Sen**

114. Controlled copolymerization of methyl acrylate with 1-alkene by RAFT polymerization. **S. Liu, B. Gu, D. Leber, A. Sen**

115. Easy synthesis and characterization of conjugated energy transfer cassettes. **W. G. Skene**, S. Dufresne


117. Emulsion copolymerization of vinyl acetate and chlorotrifluoroethylene with a functional monomer surfactant. S. Zhang, B. Geng, A. Xu, **X. Z. Kong**

118. Determination of propagation rate constant in the cationic polymerization of p-chlorostyrene. **P. De**, R. Faust

119. Living carbocationic polymerization of p-methoxystyrene using p-methoxystyrene hydrochloride/SnBr4 initiating system. **P. De**, R. Faust

120. Preparation and characterization of polyimide/aromatic silsesquioxane hybrid nanocomposites. **C. S. Ha**, I. Kim, H. W. Jeong

121. Synthesis of ferrocenylmethyl-containing dendrimers. Q. S. Hu, **Y. Lu**

122. A new approach for the polymerization of cyano-substituted poly(p-phenylenevinylene)s. **J. Liao**, Q. Wang

123. Mechanistic aspects of [Rh(nbd)Cl]2 initiated oligomerization of new acetylenic monomers. **C. G. Densmore**, P. G. Rasmussen


126. Living cationic polymerization of cyclohexyl vinyl ether and its block copolymerization with isobutylene. **Y. Zhou**, R. Faust


131. Chemical changes in Nafion membranes under simulated fuel cell conditions. **C. Zhou**, T. Zawodzinski, D. Schiraldi

132. Developing rigid polymer electrolytes. **J. F. Snyder**

134. Ti(III)Cp2Cl catalyzed living radical polymerization of styrene initiated from benzaldehydes. A. D. Asandei, Y. Chen

135. Grafting of polystyrene from poly(glycidyl methacrylate) initiated by Ti catalyzed epoxide radical ring opening. A. D. Asandei, G. Saha


139. Poly(glutamic acid) nanospheres for biomedical applications. E. Dibbern, F. Jean-Jacques Toublan, K. S. Suslick

140. Polysters and polyester-amiides with photo-regulated chiroptical behavior: Tuning responsive output with different solvents. G. D. Jaycox

141. Subcritical damped oscillations in thermal free radical method. K. R. Sharma

142. Polystyrene/clay nanocomposites prepared by heterocoagulation. S. H. Lee, W. J. Brittain

143. Preparation of conducting polymer composites for photonic applications. B. A. Higgins, Y. Xu, W. J. Brittain


145. Self diffusion of N,N-dimethylformamide in polystyrene solutions measured by pulsed-field gradient NMR. M. O. Okuom, F. D. Blum

146. Cooperative motion around inside and end segments of PMMA at the glass transition as studied by the ESR technique. Y. Miwa, K. Yamamoto, M. Sakaguchi, S. Shimada

147. Ion mobility time-of-flight measurements: Isolating the mobility of charge carriers during an epoxy-amine reaction. Z. Guo, J. D. Warner, P. Best, D. Kranbuehl


150. Electrical properties of highly conductive EDOT based copolymers. E. E. Sheina, R. D. McCullough


152. Study on the mechanical degradation of partial hydrolyzed polyacrylamide in aqueous solution(II). L. Wang, Z. Han, J. Zhou, F. Liu, J. Niu

153. Polymeric nanocomposites having block copolymers as intercalants. N. Nugay, S. Sen, T. Nugay

154. Layered silica modification with reactive groups for polystyrene nanocomposites. N. Nugay, T. Nugay, M. Memesa, Y. Menceloglu

155. Effect of filler shape and compatibilizer on weld line morphology of polypropylene and polyamide-6 blend composite. N. Nugay, T. Nugay, O. G. Ersoy


159. Spontaneous 1D arrangement of spherical Au nanoparticles with liquid crystal ligands. I. In, S. Y. Kim

160. Gateless AlGaN/GaN HEMT response to block copolymers. S. Bernard, C. Mathieu, B. S. Kang, G. Louche, Y. Gnanou, F. Ren, R. S. Duran


Pennsylvania Convention Center -- Hall D

**Polyelectrolytes and Polyampholytes: From Theory to Application**

W. T. Ford and C. L. McCormick, Organizers

5:00 - 7:00


174. Amino acid-based, ion-containing terpolymers with pH- and salt-responsive behavior. R. G. Ezell, N. Ayers, C. L. McCormick

175. Controlled polymerization of neutral and cationic methacrylamides in aqueous media by RAFT. Y. A. Vasilieva, C. W. Scales, D. B. Thomas, N. Ayres, C. L. McCormick

176. Chemical functionalization of single-wall carbon nanotubes with poly(4-vinylpyridine). S. Qin, D. Qin, W. T. Ford, J.
2005 Spring Meeting

E. Herrera, D. E. Resasco

177. Binary copolymer reactivity of tert-butyl methacrylate, N,N-dimethylaminoethyl methacrylate and solketal methacrylate. **L. N. Miranda, W. T. Ford**

178. Study of the interaction between poly(acrylic acid) and bivalent cations. J. G. Soos, R. M. Molnar, J. F. Hartmann, **J. Borbely**

179. Nanoparticles from chitosan. M. Bodnar, J. F. Hartmann, **J. Borbely**


181. Polyelectrolytes based on sulfonated poly(1,3-cyclohexadiene) block copolymers. **K. Hong**, P. Britt, J. W. Mays


186. Synthesis of block copolymers via reversible addition fragmentation chain transfer (RAFT) using 4 vinyl pyridine and tert-butyl acrylate as a polyampholyte precursor. **B. S. Lokitz**, N. Ayres, A. J. Convertine, C. L. McCormick


**MONDAY MORNING**

Marriott -- Salon I&J

**Polyelectrolytes and Polyampholytes: From Theory to Application**

**Synthesis**

W. T. Ford, **Organizer**

M. J. Fevola, **Presiding**

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

8:30 — **188.** Polymerization of sodium 4-styrenesulfonate via atom transfer radical polymerization. **P. D. Iddon**, K. L. Robinson, S. P. Armes

8:50 — **189.** Switchable amphiphiles. S. Basu, D. Vutukuri, S. Shyamroy, **S. Thayumanavan**

9:10 — **190.** Well-defined biomimetic polymers from RAFT polymerization: Carbohydrate and nucleoside functionalized poly(methacrylate)s. L. Albertin, N. K. Allen, M. Stenzel, C. Barner-Kowollik, J. L. Foster, **T. P. Davis**

9:40 — **191.** Aqueous RAFT polymerization of valine containing acrylamido copolymers. **N. Ayres**, R. G. Ezzell, C. L. McCormick

10:00 — Intermission.

10:15 — **192.** Synthesis and characterization of polyelectrolyte brushes. S. G. Boyes, B. K. Mirous, **W. J. Brittain**
2005 Spring Meeting

10:45 — 193. Synthesis of well-defined (co)polymers with ionic or ionizable groups by atom transfer radical polymerization. N. V. Tsarevsky, K. Matyjaszewski

11:05 — 194. Synthesis and polymerization of liquid ionic 1-methyl-3-alkyl-5-vinylimidazolium salts. J. Wang, T. W. Smith


Marriott -- Salon H

Polymers in Dental Materials

Bonding, Additives and Fillers

J. W. Stansbury, Organizer
J. M. Antonucci, Organizer, Presiding


9:10 — 199. Effect of resin composition on mechanical and physical properties of calcium phosphate filled bonding systems. S. Dickens, G. M. Flaim, C. J. E. Floyd


9:55 — Intermission.

10:15 — 201. Antimicrobial release from a salicylate-based poly(anhydride-ester). K. A. Whitaker-Brothers, K. E. Uhrich


10:55 — 203. UHMWPE as novel filler for dental composites. R. Ranade, S. Wunder, G. Baran

11:15 — 204. Polymer-brush modified fillers for dental composites. X. Ding, J. W. Stansbury


Marriott -- Salon G

New Developments in Coatings Technology

Tutorial: New Developments in Coatings Technology

Cosponsored with Federation of Societies for Coatings Technology, and PMSE
B. C. Benicewicz and B. Richey, Organizers
P. Zarras and T. G. Wood, Organizers, Presiding
2005 Spring Meeting

8:00 — Introductory Remarks.


8:50 — 207. Antimicrobial coatings: Introduction, progress, and challenges. K. J. Wynne

9:35 — Intermission.

9:45 — 208. Tutorial: Organic and polymeric coatings for corrosion protection. P. Zarras


11:15 — Concluding Remarks.

Marriott -- Salon K

Section D

General Papers

Polymer Characterization B

D. Garcia, Organizer
J. C. Swartz, Presiding


8:20 — 211. Sorption of poly(hexamethylenebiguanide) on cellulose: Mechanism of binding and molecular recognition. R. S. Blackburn, A. Harvey, J. Payne, L. L. Kettle

8:40 — 212. Development of an aqueous polymer for DNA purification and release for use in PCR. J. C. Swartz

9:00 — 213. Antimicrobial synthetic polymers: Amphiphilic polymethacrylate derivatives. K. Kuroda, W. F. DeGrado


9:40 — 215. Improving the resistance of polylactide to hydrolysis based on the configuration and arrangement of the molecules. D. T. Karst, Y. Yang


Emerging Frontiers in Polyolefins

Structure-Property Relation/Characterization/Application
2005 Spring Meeting

Cosponsored with SPE, and PMSE

State of the Art in Polymer Analysis

Cosponsored with ANYL

MONDAY AFTERNOON

Marriott -- Salon I&J

Polyelectrolytes and Polyampholytes: From Theory to Application

Biological Properties

W. T. Ford and C. L. McCormick, Organizers
T. P. Davis and A. B. Lowe, Presiding


2:00 — 222. Cationic polymers as gene transfer agents: Effects of polymer topology and molecular weight on transfection efficiency. A. N. Rudisin, B. D. Mather, T. E. Long


2:50 — 224. The multifaceted chemistry of hyaluronan: Applications in biomaterials. S. Gouin, C. Yan, Y. Yang, F. M. Winnik

3:20 — Intermission.


5:05 — 229. Smart poly(methacrylic acid)-1-polyisobutylene polyelectrolyte amphiphilic conetworks. M. Haraszti, B. Iván

Marriott -- Salon H

6th International Biorelated Polymers Symposium

Biorelated Polymer Synthesis and Characterization

R. M. Ottenbrite, Organizer
2005 Spring Meeting

S. J. Huang, *Presiding*
K. E. Uhrich, *Organizer, Presiding*

1:30 — 230. Biocompatibility studies of novel dendritic polysobutylene-based block copolymers. **J. E. Puskas**


2:10 — 232. Functional polymers from itaconic anhydride. **S. J. Huang, J. A. Wallach**


2:50 — Intermission.


3:30 — 235. Synthesis and characterization of a comb copolymer with a cellulose backbone and with radial hydrophilic brushes on amphiphilic teeth. C. Zhang, L. M. Price, **W. H. Daly**


Marriott -- Salon G

New Developments in Coatings Technology

Corrosion Resistant Coatings

*Cosponsored with Federation of Societies for Coatings Technology, and PMSE*
P. Zarras, T. G. Wood, B. Richey, and B. C. Benicewicz, *Organizers*
N. Anderson and B. C. Benicewicz, *Presiding*
1:00 — Introductory Remarks.

1:05 — 237. Coatings challenges for protecting U.S. Navy and Marine aircraft. **C. Matzdorf**


2:05 — 239. Corrosion protection of aluminum alloys by controlled release of inhibitors from inherently conductive polymer coatings. **P. J. Kinlen**, C. R. Graham, Y. Ding

2:35 — 240. Use of Ce-modified bentonite clay as a pigment for corrosion inhibition and sensing. S. Chrisanti, **R. G. Buchheit**

3:05 — Intermission.


3:45 — 242. New electroactive polymers for anti-corrosion coatings. R. Chen, V. Raghunadh, **B. C. Benicewicz**


5:15 — Concluding Remarks.
Industrial Polymer Scientist Award: Symposium in Honor of Bill Culbertson

P. Cassidy, Organizer
1:30 — Introductory Remarks.

1:40 — 245. Acrylic water borne coatings based on oxazoline methacrylate monomer. H. A. A. Rasoul, D. L. Trumbo

2:10 — 246. Custom design of biodegradable elastomers through bis-oxazoline coupling. P. Bonsignore, M. Gurin


3:40 — 249. Polymer Chemistry: Contributions over a twenty-seven-year industrial career. B. M. Culbertson

State of the Art in Polymer Analysis

Cosponsored with ANYL

MONDAY EVENING

Pennsylvania Convention Center -- Hall D

Sci-Mix

C. A. Guymon, Organizer
8:00 - 10:00

TUESDAY MORNING

Marriott -- Salon I&J

Polyelectrolytes and Polyampholytes: From Theory to Application

Applications

W. T. Ford and C. L. McCormick, Organizers
Y. Morishima and A. Eisenberg, Presiding
2005 Spring Meeting

8:30 — 251. Supramolecular extension of π-conjugation in conjugated oligomer. T. Sai, K. Levon


10:00 — Intermission.

10:15 — 255. Tuning the size of polymeric vesicles using ionic additives. A. Choucair, C. Lavigneur, A. Eisenberg

10:45 — 256. Synthesis and properties of polymeric micelles formed from substituted polystyrene-poly(acrylic acid) diblock copolymers. J. M. Pickel, P. F. Britt


Marriott — Salon L

6th International Biorelated Polymers Symposium

Biorelated Polymer Analysis and Processing

R. M. Ottenbrite and K. Uhrich, Organizers
A. Coury and T. Wada, Presiding


8:50 — 260. Metabolic and computational analysis of the total enzymatic synthesis of poly-(β)-hydroxybutyric acid. K. L. Burns, J. D. Lane, J. R. Thompson, M. Lubarsky, S. W. May


10:10 — Intermission.


11:10 — 266. Structure of novel cellulosic fibers from cornhusks. N. Reddy, Y. Yang
New Developments in Coatings Technology

Bioresistant Coatings

Cosponsored with Federation of Societies for Coatings Technology, and PMSE

P. Zarras, B. C. Benicewicz, T. G. Wood, and B. Richey, Organizers

N. Anderson and K. J. Wynne, Presiding

8:00 — Introductory Remarks.

8:05 — 267. Surface modification of polypropylene microporous membrane with biomimetic polymers. Z. K. Xu, X. J. Huang, Q. Yang, H. T. Deng


9:50 — Intermission.

10:05 — 270. Unusual wetting behavior of polyurethane coatings containing poly(oxetane) soft blocks. U. Makal, T. Fujiwara, K. J. Wynne


11:05 — Concluding Remarks.

Industrial Polymer Scientist Award: Symposium in Honor of Craig Hawker

K. R. Carter, Organizer

8:00 — 272. Beyond supramolecular assembly: Shaping of nanostructures. K. L. Wooley

8:30 — 273. “Living” radical polymerization as a tool for the preparation of functional polymers and copolymers. R. B. Grubbs

9:00 — 274. Structured micelles from ABC triblock copolymer “tryptych” surfactants. M. A. Hillmyer, T. P. Lodge

9:30 — 275. Hybrid inorganic-organic copolymers: Macromolecular, mesoscopic and macroscopic structures. E. B. Coughlin

10:00 — 276. Polymer bioconjugates by controlled radical polymerization. H. D. Maynard

10:30 — 277. Structural control of water-soluble homopolymers and block copolymers via RAFT polymerization: Stimuli responsiveness in aqueous media. C. L. McCormick

11:00 — 278. Amorphous copolyesters modified to enhance the glass transition temperature. S. R. Turner

2005 Spring Meeting

**12:00 — 280.** Controlled polymeric structures for advanced storage and microelectronic devices. **C. J. Hawker**

**TUESDAY AFTERNOON**

Marriott — Salon I&J

**Advances in Photoinitiated Polymerization**

**Photoinitiation and Oxygen Inhibition**

C. N. Bowman and A. B. Scranton, *Organizers*

1:00 — 281. Photoinitiation and photopolymerization of novel self-initiating monomers. T. Y. Lee, C. A. Guymon, S. E. Jönsson, C. Hoyle

1:35 — 282. Modeling of photoinitiation for thick polymer systems. **N. Stephenson**, D. Kriks, A. B. Scranton

2:00 — 283. Influence of photoinitiator mobility and solubility on the polymerization behavior in lyotropic liquid crystalline systems. **M. A. DePierro**, A. J. Olson, C. A. Guymon

2:25 — 284. 1,5-Diphenyl-1,4-diyn-3-one, a new and highly efficient Photoinitiator. **R. Liska**, B. Seidl

3:00 — Intermission.


3:50 — 286. Withdrawn.


Marriott — Salon H

**6th International Biorelated Polymers Symposium**

**Biorelated Hydrogel Systems**

R. M. Ottenbrite and K. Ulrich, *Organizers*

N. Ravi and J. C. Salamone, *Presiding*


2005 Spring Meeting

3:10 — Intermission.


Marriott -- Salon G

New Developments in Coatings Technology

**Techniques for Evaluation of Coating Performance**

*Cosponsored with Federation of Societies for Coatings Technology, and PMSE*

B. C. Benicewicz and T. G. Wood, *Organizers*

P. Zarras and B. Richey, *Organizers, Presiding*

1:30 — Introductory Remarks.


2:35 — 300. A new method for characterizing coatings: Simultaneous measurements of heat flow, mass change and viscoelastic changes in thin film samples exposed to gases and liquids. **A. L. Smith**


3:25 — Intermission.


4:05 — 303. Recent developments in the characterization of melamine resin crosslinking agents by mass spectrometry and liquid chromatography. **T. T. Chang**, M. J. Piquette, P. Li


5:25 — Concluding Remarks.

Marriott -- Salon K

Excellence in Graduate Polymer Science Research Symposium
2005 Spring Meeting

*Cosponsored with YCC, and PRES*
E. H. Martin and T. J. Pacansky, *Organizers*
H. N. Cheng and T. E. Long, *Organizers, Presiding*

2:00 — Introductory Remarks. C. P. Casey, *ACS President*

2:10 — 306. Perspectives on the future of polymer science and education. **E. M. Pearce**


3:00 — 308. Shape memory effect in smectic-C liquid crystalline elastomers. **I. A. Rousseau**, P. T. Mather

3:20 — Intermission.


4:35 — Reception.

**TUESDAY EVENING**

Pennsylvania Convention Center -- Hall D

**Polymers in Dental Materials**

*Joint POLY/PMSE Poster Session*

J. W. Stansbury and J. M. Antonucci, *Organizers*

6:00 - 8:00


313. Dental polymeric composites activated with camphorquinone or diacyl phosphine oxide photoinitiators. **N. Richards**, S. Dickens, J. M. Antonucci

Pennsylvania Convention Center -- Hall D

**New Developments in Coatings Technology**

*Joint POLY/PMSE Poster Session*

P. Zarras, B. C. Benicewicz, T. G. Wood, and B. Richey, *Organizers*

6:00 - 8:00


315. A potential manganese-based catalyst for alkyd emulsion paints. Z. O. Oyman, **W. Ming**, R. van der Linde

316. Effect of aging on mechanical properties of a high temperature tolerant stereolithography resin. **J. Xu**, R. G.
2005 Spring Meeting

Chambers, J. Schaefer


319. Polymer coating of pharmaceutical ingredients in supercritical CO2. B. Yue, C. Y. Huang

320. Study on scratch profile of SSO-film/glass-substrate modified with TEOS. P. Chen, L. Hu


322. Zosteric acid: An effective antifoulant for reducing bacterial attachment on coatings. B. M. Zhang Newby, C. Barrios, Q. Xu, T. J. Cutright

Pennsylvania Convention Center -- Hall D

Advances in Photoinitiated Polymerization

Joint POLY/PMSE Poster Session

C. N. Bowman and A. B. Scranton, Organizers
6:00 - 8:00


326. Laser Flash Photolysis investigations of pyridine ketones. R. Liska, B. Seidl, G. Grabner


Pennsylvania Convention Center -- Hall D

Excellence in Graduate Polymer Science Research Symposium

Joint POLY/PMSE Poster Session

Cosponsored with YCC, and PRES
6:00 - 8:00
328. Synthesis, characterization and polymerization of monomers towards bridge trifluoromethylated poly(p-phenylenevinylene). A. J. Roche, A. D. Loyle, J. P. Pinto


331. Synthesis of perfluorocyclobutyl linked hexabenzocoronene networks. B. K. Spraul, S. Suresh, S. Glaser, D. Perahia,
2005 Spring Meeting

D. W. Smith Jr.


337. Tailoring photopolymerization materials for nanotechnology. M. D. Dickey, E. Collister, E. K. Kim, C. G. Willson

338. Modeling the flow of crosslinked guar gum in porous media. M. T. Balhoff

339. Implication of hydrogen bonding on rheological/electrospinning relationships. M. G. McKee, T. E. Long

340. Intramolecular electrostatic interactions in polyelectrolyte solutions: Comparison of a new empirical model to experimental data. T. S. Rushing, R. D. Hester

Pennsylvania Convention Center -- Hall D

6th International Biorelated Polymers Symposium

Joint POLY/PMSE Poster Session

R. M. Ottenbrite, Organizer
K. E. Uhrich, K. L. Kiick, and T. Emrick, Presiding
6:00 - 8:00


343. Antimicrobial poly(oxazoline)s. C. J. Waschinski, V. Herdes, J. C. Tiller

344. Molecular design of biocompatible hydrogel based on molecular mobility of waters and polymer chains. T. Morisaku, T. Ikehara, J. Watanabe, M. Takai, K. Ishihara

345. Nanostructure of β-sheet fibrils constructed by unfolded β-hairpin peptide self-assembly. M. S. Lamm, K. Rajagopal, J. P. Schneider, D. J. Pochan

346. Remarkable stereocontrol in the polymerization of racemic lactide using aluminum initiators supported by tetradentate aminophenoxide ligands. V. C. Gibson, P. Hormnirun, E. L. Marshall


349. Biodegradable polymer micelle: Design of well-defined amphiphilic polyphosphate with hydrophilic graft chain via ATRP. Y. Iwasaki, K. Akiyoshi
350. Effects of β-hairpin peptide turn sequences on hydrogel nanostructure and bulk material properties due to peptide intramolecular folding and consequent intermolecular self-assembly. T. Yucel, K. Rajagopal, D. J. Pochan, J. P. Schneider


352. Synthesis and iron(II) chelation studies of bipyridine-centered poly(ethylene glycol). A. Pfister, T. J. Wedge, C. L. Fraser

353. A fatty acid biosensor constructed from a fatty acid binding protein immobilized in a hydrogel. W. Cai, B. J. Pitner

354. A novel approach for the synthesis of acrylonitrile-based copolymers containing phospholipid moieties. X. J. Huang, Z. K. Xu, J. Q. Wang, L. S. Wan, Q. Yang


356. Self-organization of polyphosphazene-poly(styrene) block copolymers. Y. Chang, E. S. Powell, H. R. Allcock, C. Kim

357. Synthesis of PLA by direct condensation of lactic acid with modified gneiss as catalyst. Z. Wang, H. Ni


363. Artificial glycopoly peptides for the inhibition of bacterial toxins. B. D. Polizzotti, K. L. Kiick


365. Incorporation of 5-aminosalicylic acid into poly (anhydride-esters) by solution polymerization. Y. Kim, K. E. Uhrich

366. Synthesis and characterization of phenyleneethynylene oligomer having hydrogen bonding sites. M. Obata, S. Yano, Y. Shinya


368. Morphology of amphiphilic diblock polypeptides that controllably self-assemble into hydrogels and vesicles. L. Pakstis, A. Nowak, E. Holowka, T. J. Deming, D. J. Pochan

369. Pendant Pegylation of aliphatic polyester for biomaterials applications. B. Parrish, T. Emrick


371. Cosolvent effects on aqueous solution properties of dextran: Static light scattering investigation. P. Alexandridis, K. T. Yong

372. Graded modification of PAMAM dendrimer with poly(ethylene glycol). E. O. Akala, G. Pan


377. Withdrawn.


380. Anti-microbial poly(dimethylsiloxane) surfaces obtained by microwave plasma reactions. W. S. Bae, M. W. Urban

WEDNESDAY MORNING

Marriott -- Salon I&J

Advances in Photoinitiated Polymerization

Thiol-Ene Photopolymerizations

C. N. Bowman and A. B. Scranton, Organizers


8:30 — 382. Highly functional thiols synthesized by an amine-catalyzed thiol-ene reaction. T. S. Clark, C. E. Hoyle, S. E. Jönsson


10:00 — Intermission.


Marriott -- Salon H

6th International Biorelated Polymers Symposium

New Advances in Biorelated Polymers in Honor of Junzo Sunamoto
2005 Spring Meeting

K. E. Uhrich, Organizer
A. V. Kabanov, Presiding
R. M. Ottenbrite, Organizer, Presiding

8:30 — 388. Synthesis of folic acid moiety-conjugated hydrophobized pullulan (FA-CHP) as a carrier of anticancer drugs. J. Sunamoto, K. Ushio, D. Lai


9:10 — 390. Design of lactide-based copolymers for bioabsorbable materials. T. Ouchi, Y. Ohya


9:50 — 392. Active control of DNA recognition behavior of alfa-peptide ribonucleic acids containing basic amino acid residues by external factors. T. Wada

10:10 — Intermission.

10:30 — 393. Surface modification of retinal implants. C. Scholz, R. Sweitzer, P. Stewart, M. Gingerich, D. Shire, S. Montezuma, J. Rizzo

10:50 — 394. Recent developments of athrombogenic coatings for artificial kidney, microvascular blood vessels and Midline catheders with blood vessel Heparansulfate and related mimetics. H. Baumann


Marriott -- Salon G

New Developments in Coatings Technology

Nanocomposites and Inorganic-Organic Hybrid Coatings

Cosponsored with Federation of Societies for Coatings Technology, and PMSE
P. Zarras, B. C. Benicewicz, and T. G. Wood, Organizers
A. J. Guenthner, Presiding
B. Richey, Organizer, Presiding

9:00 — Introductory Remarks.

9:05 — 397. Carbon nanotube thin film architectures and nanocomposites. P. M. Ajayan


10:25 — Intermission.


11:10 — 400. UV-curable, hybrid organic-inorganic coatings containing metal oxide nanoparticles. B. J. Chisholm, J. Resue

11:45 — Concluding Remarks.
Excellence in Graduate Polymer Science Research Symposium

*Cosponsored with YCC, and PRES*

H. N. Cheng and T. E. Long, *Organizers*
E. H. Martin and T. J. Pacansky, *Organizers, Presiding*

8:15 — Introductory Remarks.

8:20 — **401.** Rational design of the catalyst for atom transfer radical polymerization in aqueous media. **N. V. Tsarevsky**, K. Matyjaszewski


9:20 — **404.** Lipase-catalyzed route to hyperbranched polymers with dendritic glycerol units. **A. Kulshrestha**, W. Gao, D. Kudasheva, R. A. Gross


10:00 — Intermission.


10:55 — **408.** Control of bioresponse to polymers. **L. H. Wilson**

11:15 — **409.** The impact of oxygen on photopolymerization kinetics and polymer structure. **A. K. O’Brien**, C. N. Bowman


**WEDNESDAY AFTERNOON**

Advances in Photoinitiated Polymerization

**Cationic Photopolymerizations**

C. N. Bowman and A. B. Scranton, *Organizers*

1:30 — **411.** Synthesis of microspheres by cationic suspension photopolymerization. **J. V. Crivello**, B. Falk

2:05 — **412.** Characterization of kinetic rate constants of cationic photopolymerizations of epoxides. **V. Sipani**, A. Kirsch, **A. B. Scranton**

2005 Spring Meeting

3:15 — Intermission.


4:10 — **415.** Dark and light reactions in EB cationic polymerization of epoxies. **J. Lee**, G. R. Palmese

Marriott -- Salon H

6th International Biorelated Polymers Symposium

Biorelated Nanostructures and Assemblies

R. M. Ottenbrite and K. Ulbrich, *Organizers*
J. S. Riffle and H. Baumann, *Presiding*

1:30 — **416.** Gel and micelle type intermediate solution structures of PEG-b-polylactide for hydrophilic and hydrophobic drug delivery. I. M. Khan, J. K. Krangle, **K. P. Pemawansa**

1:50 — **417.** Novel block ionomer micelles with cross-linked ionic cores. **T. K. Bronich**, A. V. Kabanov

2:10 — **418.** Core/shell nanoparticles with lipid core for a drug delivery system. **S. H. Yuk**, K. S. Oh, S. H. Cho

2:30 — **419.** Enhanced anticancer activity of core-surface-crosslinked nanoparticles. P. Xu, E. A. Van Kirk, S. Li, J. Ren, W. J. Murdoch, M. Radosz, **Y. Shen**


3:10 — Intermission.

3:30 — **421.** Effect of pluronic block copolymers on gene expression. **A. V. Kabanov**, S. Sriadibhatla, Z. Yang, V. Y. Alakhov

3:50 — **422.** Block ionomer complexes from combinations of surfactants: Particle morphology and surfactant mixing. **S. V. Solomatin**, T. K. Bronich, V. A. Kabanov, A. Eisenberg, A. V. Kabanov

4:10 — **423.** Magnetic poly(L-lactide)-cobalt complexes and microspheres. **M. Vadala**, M. S. Thompson, M. Zalich, T. G. St. Pierre, J. S. Riffle

Marriott -- Salon G

New Developments in Coatings Technology

Nanocomposites and Inorganic-Organic Hybrid Coatings

*Cosponsored with Federation of Societies for Coatings Technology, and PMSE*

T. G. Wood and B. Richey, *Organizers*
P. Zarras and B. C. Benicewicz, *Organizers, Presiding*

1:30 — Introductory Remarks.

1:35 — **424.** Nanostructured inorganic conversion coatings. **J. L. Liang**, W. E. Fristad, K. Meagher, T. Bryden

2:10 — **425.** Nanosystems for film formation. A. Üveges, J. F. Hartmann, **J. Borbely**

2:35 — **426.** Nanocomposite coating materials from hybrid latexes. **V. Castelvetro**, C. De Vita, M. Geppi, S. Gialacopi, G.
2005 Spring Meeting

Giannini, M. Martinelli

3:00 — Intermission.


3:45 — 428. Synthesis and photopolymerization of UV curable polyhedral oligomeric silsesquioxane (POSS). B. Pan, C. E. Hoyle, J. Lichtenhan

4:10 — Concluding Remarks.

Marriott -- Salon K

General Papers

Polymer Synthesis - B

D. Garcia, Organizer
R. Ranade, Presiding

1:00 — 429. Peroxide crosslinking of an unsaturated thermotropic polyester. H. Qin, P. T. Mather


2:00 — 432. New synthetic route for conjugated thiophenes. W. G. Skene, T. Trefz

2:20 — 433. Synthesis of starch maleate half-esters under microwave irradiation. A. Biswas, R. L. Shogren, J. L. Willett


3:00 — 435. Synthesis of narrow distribution polycyclopentene using a ruthenium-based ring opening metathesis initiator. S. B. Myers, R. A. Register

3:20 — 436. Triisobutylaluminum as powerful catalyst for the anionic polymerization of propylene oxide initiated by alkali metal derivatives or tetralkylanmonium salts. A. Defieux, C. Billouard, S. Carlotti, P. Desbois


THURSDAY MORNING

Marriott -- Salon A
Advances in Photoinitiated Polymerization

Materials Development

C. N. Bowman and A. B. Scranton, Organizers

8:00 — 445. Synthesis of composite materials by photopolymerization. C. Decker, L. Keller, S. Benfarhi, K. Zahouily, C. Bianchi


9:50 — Intermission.


11:35 — 448. Thermal UV dual cure of oxetane acrylates. M. Sangermano, M. Manea

Section B

6th International Biorelated Polymers Symposium

Biosensors and Assays

R. M. Ottenbrite and K. Uhrich, Organizers
A. Guiseppi-Elie and C. Scholz, Presiding

8:30 — 449. Multi-mode conjugation of enzymes on polymer nanoparticles covered with phosphorylcholine groups for high-sensitive diagnosis. K. Ishihara, T. Konno, J. Watanabe

8:50 — 450. Mimicking the immunological synapse with multicomponent protein-patterned surfaces. D. J. Irvine, J. Doh


9:30 — 452. Synthesis and characterization of bioconjugates of natural polymers and peptides for the detection of bacterial spores. N. K. Sharma, K. Leven


10:10 — Intermission.

10:30 — 454. Solid-phase immunoassay on polymer-based microanalytical devices. S. Wei, S. A. Soper, R. L. McCirley

10:50 — 455. Transduction and molecular recognition of Clostridium botulinum using polyaniline nanowire modified
antibody attached to quartz crystal microbalance. J. Lou, H. Yin


New Developments in Coatings Technology

Specialty and Advanced Coatings

Cosponsored with Federation of Societies for Coatings Technology, and PMSE
P. Zarras, B. C. Benicewicz, and B. Richey, Organizers
S. Feng, Presiding
T. G. Wood, Organizer, Presiding
8:00 — Introductory Remarks.


8:35—458. Combinatorial and high-throughput development of polymer sensor materials for optical and resonant sensors. R. A. Potyrailo


9:35—460. New functional fluorinated acrylate coating. PTFEA with two hydroxyl groups at same chain end. H. Hong, T. C. Chung

9:55 — Intermission.

10:05—461. Responsive coatings for the sequestration and removal of toxic heavy metals from surfaces. H. N. Gray, B. S. Jorgensen


11:05—463. Oligomers of H12-MDI and diethylmalonate as precursors for low temperature powder coatings crosslinkers. T. P. Facke, S. Feng

11:35 — Concluding Remarks.

THURSDAY AFTERNOON

Advances in Photoinitiated Polymerization

Photopolymerization Kinetics

C. N. Bowman and A. B. Scranton, Organizers
1:00 — 464. Kinetic modeling of photo initiated acrylate polymerization. J. F. G. A. Jansen, T. J. G. Zwartkruis

1:30—465. Composition dependence of the photopolymerization kinetics in holographic polymer dispersed liquid crystals (HPDLCs). T. J. White, C. A. Guymon
2005 Spring Meeting

1:55 — 466. In situ monitoring of conversion extent and viscoelastic properties during the photocrosslinking of an acrylate formulation. J. Dupuy, A. Botella, A. A. Roche, H. Sautereau, V. Verney


3:20 — Intermission.


4:05 — 470. Study of laser-initiated polymerizations by optical pyrometry. M. Jang, J. V. Crivello, B. Falk, P. Lin


Marriott -- Salon I&J

6th International Biorelated Polymers Symposium

Protein, DNA and Polysaccharides

R. M. Ottenbrite and K. Uhrich, Organizers
D. Y. Sogah and H. Ghandehari, Presiding


1:50 — 473. A novel polysaccharide DNA-carrier to deliver CpG motifs to endosome. K. Sakurai, S. Shinkai

2:10 — 474. Osmotic and small-angle neutron scattering properties of DNA gels. F. Horkay, P. J. Basser, A. M. Hecht, E. Geissler


2:50 — 476. Dynamics and interactions of complexes formed by carrageenan/furcelleran and bovine serum albumin hybrids. Q. Huang, J. Lee, C. Ruengruglikit

3:10 — Intermission.

3:30 — 477. Microencapsulation and controlled-release of food enzyme using protein-polysaccharide coacervates. Y. Jiang, Q. Huang


Marriott -- Salon B

New Developments in Coatings Technology
2005 Spring Meeting

Specialty and Advanced Coatings

_Cosponsored with Federation of Societies for Coatings Technology, and PMSE_

P. Zarras, B. C. Benicewicz, and T. G. Wood, Organizers
D. B. Pourreau, _Presiding_
B. Richey, _Organizer, Presiding_

1:00 — Introductory Remarks.

1:05 — _480_. Modified urea based liquid rheology additives for coatings. **J. Hajas**

1:30 — _481_. Weathering and gloss loss in thermoplastic paints: Case of PVDF architectural paints. **K. A. Wood**

2:00 — _482_. New low-viscosity acrylic-urethane prepolymers and their acrylated oligomers for moisture- and UV-curable coatings and adhesives. **D. B. Pourreau, S. E. Smyth**

2:30 — Intermission.

2:40 — _483_. High performance UV-cured acrylic coatings. **C. Decker**

3:10 — _484_. Development of a UV-curing polyurethane dispersion for soft feel application. **P. D. Schmitt, L. K. Gindin, A. Lockhart, P. D. Lunney**

3:40 — _485_. Surface-fluorinated polyurethane coatings. **W. Ming**

4:05 — _486_. Thiophene oligomer as a "redox mediator" for the biocatalytic synthesis of Poly(3,4-Ethylenedioxythiophene) [PEDOT]. **R. Nagarajan, F. F. Bruno, L. A. Samuelson, J. Kumar**

4:35 — Concluding Remarks.