Abstract/Preprint Deadline: April 13, 2001

The preliminary detailed program is available.

**Combinatorial and Highly Parallel Techniques for New Materials**
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**Advances in Photoinitiated Polymerization (cosponsor PMSE)**
Kevin Belfield, Dept. of Chemistry, U of Central Florida, PO Box 162366, Orlando, FL 32816-2366; (407)823-1028; kbelfiel@mail.ucf.edu; James Crivello, Dept of Chemistry, Rensselaer Polytechnic Institute, Troy, NY 12180, (518) 276-6825, fax (518) 276-4045, CRIVEJ@RPI.EDU.

**Macromolecular Assemblies for Optical and Electronic Applications in Memory of Sukant Tripath (cosponsor PMSE)**
J. Paul Armistead, Office of Naval Res., 800 N. Quincy St., Arlington, VA 22217-5660; (703) 696-4315, FAX (703) 696-6887, armistj@onr.navy.mil ; Anthony Giuseppi-Elie, VA Commonwealth Univ., Rm. 408/409, School of Engg., P.O. Box 843068, 601 W. Main St, Richmond, VA 23284-3068; (804) 827-7016, FAX (804) 827-7029, guiseppi@vcu.edu ; Michael F. Rubner, MFT, Dept. of Mats. Sci. & Engg., 77 Massachusetts Ave., Cambridge, MA 02139; (617) 253-4477, rubner@mit.edu ; Daniel J. Sandman, University of MA - Lowell, Dept. of Chem., 1 University Ave., Lowell, MA 01854; (978) 934-9383, FAX (978) 577-1414, daniel_sandman@uml.edu ; Kenneth Wynne, VA Commonwealth Univ., Dept. of Chem. Engg., P.O. Box 843028, 601 W. Main St, Richmond, VA 23284-3028; (804) 828-9303, FAX (804) 828-4269, kjwynne@vcu.edu.

**2000 Nobel Laureates in Polymer Chemistry Symposium**
Kenneth J. Wynne, Department of Chemical Engineering, Virginia Commonwealth University, 601 West Main Street, P.O. Box 843028, Richmond, VA, 23284-3028; (804) 828-9303, FAX: (804) 828-4269, kjwynne@vcu.edu

**Advances in Polymurethanes**
James E. McGrath, Virginia Tech University, 2108 Hahn Hall, Blacksburg, VA 24061, (540)231-5976, fax (540)231-8517, JMcgrath@vt.edu.

**Tailored Synthetic Polymers As Biomaterials**
T. Deming, Dept. of Chemistry, Univ. of California-Santa Barbara, Santa Barbara, CA 93106; (805)893-8474; fax (805)893-7221; tdeming@engineering.ucsb.edu; D. Tirrell, California Institute of Technology, Dept. of Chemical Engineering, 1200 E. California Blvd., Pasadena, CA 91125; (626)395-2423; tirrell@caltech.edu.

**PVC and Related Polymers: Chemistry and Applications**
W. Starnes, College of William & Mary, Dept. of Chemistry, P.O. Box 8795, Williamsburg, VA 23187-8795; (757)221-2552; fax (757)221-2715, whstar@wm.edu or whstarnes@widomaker.com; D. E. Witenhafer, 6045 Glenbarr Place, Dublin, OH 43017; 614-761-8308, fax: 614-761-8298, dwit@compuserve.com.

**Advances in Filler Technology**
N. Singh, McKinsey and Company, 55 E. 52nd Street, New York, NY 10055, 212-446-8146, Fax (212)-644-7140, Navjot_singh@mckinsey.com; F. D. Blum, Department of Chemistry, Univ. of Missouri-Rolla, Rolla, MO 65409-0010, (573)341-4451; fblum@umr.edu.

**Computer Modeling of Polymers (primary sponsor PMSE)**
Sanat Kumar, Pennsylvania State Univ., Materials Science and Engineering 316 Steidle Building, University Park, PA 16802, (814)865-3294, fax (814)865-2917, kumar@plmsc.psu.edu; Barry L. Farmer, AFRL/MLBP, 2941 P St, Suite 1, Wright-Patterson AFB, OH 45433-7750, (937)255-9209, fax (937)255-9157, farmerbl@milwpafb.af.mil; G. C. Rutledge,
DIVISION OF POLYMER CHEMISTRY

CAUTION: Please see the ACS website for the official final program. This is only the preliminary program.

C. N. Bowman, Program Chair

SUNDAY MORNING
Section A
Unknown Site
Unknown Room
Macromolecular Assemblies for Optical and Electronic Applications
Optical properties
Cosponsored with Division of Polymeric Materials: Science and Engineering
K. J. Wynne, J. P. Armistead, D. J. Sandman, and A. Guiseppi-Eli, Organizer

8:30 – 1. Rare earth-doped polymer optical waveguide amplifiers. A. F. Garito, R. Gao
9:00 – 2. Electroabsorption spectroscopy of higher order nonlinear susceptibilities in polymers. J. Kumar, K. Yang, D. Lee, D. Sandman, S. Tripathy
9:30 – 3. Chiral polymers for optical waveguides. W. N. Herman, G. A. Lindsay, D. Irvin, A. Guenthner, A. Chafin
10:00 – 4. Multifunctional organic photorefractive materials: The past and future. L. Yu
10:30 – 5. Photoinduced chirality in azobenzene containing liquid crystal polymers. P. Rochon, A. Natansohn, Y. Wu
11:00 – 6. Optical limiting properties of indium and titanium phthalocyanines and naphthalocyanines. M. Hanack
11:30 – 7. Polymer optical and electronic based sensors. J. B. Lando

Section B
Unknown Site
Unknown Room
Advances in Filler Technology
Polymer-Filler Interfaces
N. Singh and F. D. Blum, Organizer

9:00 – 9. Relaxation dynamics in thin films of poly(vinyl acetate) and poly(methyl methacrylate). K. Fukao, S. Uno, Y. Miyamoto, A. Hoshino, H. Miyaji
10:00 – 11. Polymer filler interface characteristics: Determinant elements for filled polymer properties. B. Haidar, K. Vuillaume, A. Vidal
2001 Fall Meeting

10:30 – Intermission.
11:50 – 14. Dynamics of poly(vinyl acetate)-d\textsubscript{3} on silica. **R. D. O'Connor**, G. Xu, F. D. Blum

**Section C**
Unknown Site
Unknown Room
**Tailored Synthetic Polymers as Biomaterials**
**morning session**
T. Deming and D. Tirrell, Organizer

9:45 – Intermission.
10:00 – 19. Degradation kinetics influence ECM production of photoencapsulated chondrocytes in PEG-based hydrogels. S. J. Bryant, K. L. Durand, **K. S. Anseth**

Three-Dimensional Silicon-Oxygen Cages: Materials for the 21st Century
_Cosponsored with Division of Physical Chemistry_
See Page X
**SUNDAY AFTERNOON**
Section A
Unknown Site
Unknown Room
**Macromolecular Assemblies for Optical and Electronic Applications**
**Optical properties**
K. J. Wynne, J. P. Armistead, D. J. Sandman, and A. Guiseppi-Eli, Organizer

1:30 – 23. Polymer architectures for sensory and photonic applications. **T. M. Swager**
2:00 – 24. Nanoscale self-assembly in highly conductive block-copolymers containing regioregular polythiophenes. **R. D. McCullough**
2:30 – 25. Detection of DNA hybridization using conductive polymer layers. **A. Guiseppi-Eli**
4:00 – 28. Synthesis of starburst hexadecaaniline derivative of C60 and its elastic submicroparticles. **L. Y. Chiang**
2001 Fall Meeting


Section B
Unknown Site
Unknown Room
General Papers

Nanostructure in Polymeric Systems
A. Guymon, Organizer
A. Guymon, Presiding

1:50 – 33. Cyclodextrin-based polymers: Nanomaterials with built-in scavenging capabilities. S. K. Young, P. L. Vadja, E. Napadensky
2:10 – 34. Hyperbranched polymers based on diphenolic acid. Q. Hua, T. Tannahill, J. A. Moore

4:30 – 41. Surface initiated photopolymerization from gold. D. J. Dyer, T. Zhao, J. Green
4:50 – 42. Self-assembling nanostructures of silicate galleries consisting of poly(oxyalkylene)amines. J. Lin, R. Wang, I. Cheng


Section C
Unknown Site
Unknown Room

Tailored Synthetic Polymers as Biomaterials
afternoon session
T. Deming and D. Tirrell, Organizer

1:30 – 44. Acrylic-based copolymers for oral insulin delivery systems. A. C. Foss, N. A. Peppas
2:20 – 46. Electrostatic self-assembly of biopolymer systems. G. C. L. Wong
2:45 – 47. Intermission.

Section D
Unknown Site
Unknown Room

Unilever Award Symposium
2001 Fall Meeting

Cosponsored with Division of Polymeric Materials: Science and Engineering
W. T. Ford, Organizer, Presiding

1:30 – 51. Advanced polymeric materials technologies for electronics applications. E. Reichmanis

3:15 – 54. Opportunities for photopatterning in nanotechnology. C. Ober
3:50 – Award Presentation: K. P. Ananth
3:55 – 55. Molecular templating of nanoporous organosilicates by tailoring the microphase separation of triblock copolymers. S. Yang

Three-Dimensional Silicon-Oxygen Cages: Materials for the 21st Century
II
Cosponsored with Division of Physical Chemistry
See Page X

SUNDAY EVENING

Unknown Site
Unknown Room

Division of Polymer Chemistry General Papers Poster Session
Synthesis
C. A. Guymon, Organizer

5:30 - 7:30
Posters on Polymer Characterization.

56. Helical poly(2-methoxystyrene) with a memory for chirality. K. Gordon, S. Negi, I. M. Khan
57. Electroluminescence and photoluminescence of poly(m-phenylenevinylene)-alt-(p-phenylenevinylene) light emitting copolymers. E. E. Gurel, Y. Pang, F. E. Karasz
58. Layer by layer self-assembly of polythiophene. L. Zhai, R. McCullough
59. Observing the aggregation of a novel amphiphilic polymer in solution using 1H-NMR relaxation times (T1). A. C. Watterson, M. Chen
60. Optimizing conductivity in polyelectrolytes: Simulations and synthesis. J. F. Snyder, M. A. Ratner, D. F. Shriver
62. Behavior of HAS-derived nitroxides in thermally degraded poly(acrylonitrile-butadiene-styrene) based on ESR imaging and FTIR. S. Schlick, M. V. Motyakin
64. Thermal properties of rigid rod epoxies cured with diaminodiphenylsulfone and dicyandiamide. W. Su, H. Huang, W. Pan
65. Applications of water soluble cobalt (II) porphyrin in controlled radical polymerizations of acrylates in aqueous media. Y. Li, L. Basickes, B. B. Wayland
66. Blown oil ceramer coatings for corrosion protection. G. Teng, J. Li, L. He, M. D. Soucek
67. Study on colorless photosensitive polyimides for high aperture ratio TFT-LCD. M. H. Yi, E. Y. Chung, K. Choi, K. Kim, G. Kim
68. Chitosan as polycation in electrostatic assemblies of conjugated polymers. M. Kim, C. Sung, D. J. Sandman
69. Chain transfer to SCLC polymer in free-radical polymerizations of methyl acrylate. C. Pugh, G. Pan, J. Leiston, Y. Pae
70. Bonded thermostensitive poly(N-isopropylacrylamide) hydrogels on cellulosic supports. J. Xie, Y. Hsieh
71. Comparison of analytical methods for characterization of the thermochromic transition of poly(3-alkylthiophene)s. C. Beildeck, B. L. Lucht, W. B. Euler
72. Conformation and orientation of polymers in good solvents under external electric fields. Y. Chen, C. Shew
73. Crystal structure of mixed n-paraffin solid solutions. K. Song
74. Cure kinetics of UV-curable adhesives. Q. Wang, P. Zhu, Z. Li
75. Curing of epoxy and glucose maleic acid ester vinyl copolymer. S. O. Han, B. Defoort, L. T. Drzal
76. Effect of \( \chi \)-methylnaphtalene as a compatibilizing agent on the mechanical properties of the fiber spun from the coal tar pitch-based thermosetting resin. M. Ota, H. Omiya, K. Itoh, S. Otani
77. Effect of posttreatment temperature on the formation of multihollow P(St-EA-AA) latex particles. C. Kan, P. Zhao, D. Liu
78. THE ENDOTHERMIC NATURE OF THE BINDING OF ANIONIC BILE SALTS TO A CATIONIC ADSORBENT. C. K. Williams, W. C. Galley, G. R. Brown
85. Identification of molecular interactions in non-covalent adducts of sodium poly(\( \alpha \)-l-glutamate) with poly(vinylpyrroldione) K. P. Pemawansa, I. M. Khan
86. Photorefractive properties of novel materials based on methine dyes. L. Wang, M. Ng, L. Yu
87. Induced helical poly(3-methyl-4-vinylpyridine). B. Sannigrahi, I. M. Khan
88. IR profiling of degradation products in poly(acrylonitrile-butadiene-styrene) exposed to UVB radiation and oxygen. S. Schlick, J. G. Borkia
89. Isothermal crystallization kinetics of in situ composites of poly(ether ether ketone) and a novel poly(aryl ether ketone) liquid crystalline containing fluorine. Y. Wang, G. Wang, Z. Jiang, Z. Wu
90. Self-organizational structures of amphiphilic poly(phenylacetylene) with amino acid appendages. L. Bngshi, C. Kevin Ka Leung, X. Xudong, B. Chunli, T. Benzhang
91. Low-loss fluorinated poly(arylene ether sulfide)s for optical waveguide devices. J. Kim, J. Kang, J. Kim, J. Lee
94. Molecular intercalate between poly(ethylene oxide) and p-bromotoluene. Y. Fang, X. Zhu, D. Yan
95. Monte Carlo simulations for the conformational behavior of a polymer chain in a flexible tube. A. Ajavon, C. Shew
96. Morphology and structure of polyamide 4 14 lamellar crystals grown from dilute solution. Y. Li, G. Zhang, D. Yan
98. Morphology of poly(acrylonitrile-butadiene-styrene) and corresponding homopolymers and dicopolymers from spin probe ESR and simulations. S. Schlick, B. Varghese
100. Neutron scattering investigations on fluorosilicone gels. F. Horkay, R. J. Uriarte, A. Hecht, E. Geissler
102. Thermal decomposition processes in polybenzoxazines investigated by TGA and GC-MS. K. Henvichian, H. Ishida
103. Photodynamic polymers containing azo chromophores both in main chain and side chain. Y. He, X. Wang, Q. Zhou
104. Thermal properties of phthalic acid hydride and phenolic resin cured rigid rod epoxy resins. W. Su, Y. Lee, W. Pan
109. Preparation of mesoporous silica film containing excited-state intramolecular proton transfer dye. J. Seo, S. Kim, M. Ogawa, S. Y. Park
110. Probing solvent effect on the chain conformation of PPI-2 dendrimer via NMR. M. Chai, D. He, S. Carper, D. Williamson
111. **Products of radiation degradation of polystyrene: Calculation of energy transitions and oscillator forces.** N. N. Barashkov, V. G. Klimenko, T. V. Sakhno, V. G. SENCHIN
112. Raman study on the intermolecular interactions between thermotropic liquid-crystalline oligomers: Comparison of the effect of poly(propylene oxide) and poly(ethylene oxide) coils on the intermolecular structures. S. Yu, H. Choi, K. H. Yu, J. M. Rhee
115. Smart polymeric coatings for surface decontamination: For the decontamination of mercury and lead contaminated surfaces. H. N. Gray, D. L. McLaugherty, A. Ripponberger
116. Solid state microstructure of polylactide copolymers by atomic force microscopy. M. Kanchanasopa, J. Runt
119. Solution aggregation studies of aromatic/ionic copolymers using isomerization spectroscopy. L. L. Norman, C. J. Barrett
120. Structural aspects of the thermochromic transition in the polydiacetylene of bis(ethylurethane) of 5,7-dodecadiyne-1,12-diol (ETCD) D. Lee, S. K. Sahoo, A. L. Cholli, D. J. Sandman
121. Structure of DPAA/styrene gel in free radical polymerization. D. Kim, D. Sohn, J. Kim, S. Lee, Y. Han
122. Study of the effect of nucleators on the glossiness and mechanical properties of PS/PE blends. Z. Wang, L. He, J. Shen
123. Study on aliphatic-aromatic hyperbranchedpolystyres. T. Qiu, L. Tang, X. Zhang, X. Tuo, D. Liu
124. Study on crosslinking mechanism for polyacrylate/polyurethane composite coating. L. Tang, X. Liu, D. Liu, Q. Zhou
125. Study on phase transitions of polymerizable dendritic benzene carboxylates containing diacetylenic groups. S. J. Lee, H. J. Cho, J. Y. Chang
128. Kinetics of nylon 10 10 melt intercalation in montmorillonite. G. Zhang, Y. Li, D. Yan, X. Yang, E. Zhou
129. Thermal properties of high refractive index epoxy resin system. W. Su, Y. Fu, W. Pan
134. Convenient reaction protocol to covalently bonded organic/inorganic hybrids. Y. Wei, B. Xu, M. Lu, C. F. Cheung, Z. Peng
135. Experimental investigation into one-step and two-step polymerization via Michael addition from primary amine. F. He, K. Shoosharti, H. Collier
138. Living anionic polymerizations of well-defined sugar-containing diblock fluoroepomer and its application in CO2 emulsion polymerizations. W. Ye, J. M. DeSimone
139. Modification of epoxy resin by amino-polycarbonate. D. Hao, X. Tang
140. Chemical modification of copoly(dimethylsiloxane/vinylmethylsiloxane) by Ru-catalyzed addition of aromatic ketones to vinyl groups: Photochemical and electrochemical properties. J. M. Mabry, J. Brooks, W. P. Weber
141. Copolymerization of norbornenes and functionalized norbornenes with ethene. C. Andes, K. Oyler, A. Sen
143. New metallocene catalyst having an indenyl and a fluorenyl ligand for ethylene-polar monomer copolymerization. J. Inuita, Y. Toda, N. Kashiwa
144. Novel photoluminescent materials based on 3,4-ethylenedioxythiophene and polyphenylenevinylene R. V. Gregory, P. Pitman, M. F. Pepitone, S. Hardaker
146. Effect of amine substituents on hydrogen bonding and network structure of polybenzoxazinnes. H. Kim, H. Ishida
147. Precision synthesis of (1 \rightarrow 6)-\alpha-D-glucopyranose A. Kusuno, M. Mori, T. Satoh, M. Miura, H. Kaga, T. Kakuchi


149. Preparation and antibacterial activity of pyridinium-carrying polypropylene particles. G. Li, J. Shen

150. Controlling stereoselectivity in ROMP of monocyclic olefins catalyzed by tungsten-based systems. V. Dragutan, I. Dragutan, M. Dimonie

151. Self-assembling side chain azo polyelectrolytes from THF-water dipping solution. X. Tuo, Y. Deng, Y. Li, X. Wang

152. Study on the direct polycondensation of poly(DL-lactic acid). H. Mai, Y. Zhao, J. Wang

153. Syntheses of crosslinkable poly(carbosilane/siloxane)s by hydrosilation in toluene and supercritical carbon dioxide. H. Zhou, S. Venumbaka, J. Fitch, P. Cassidy


155. Design and synthesis of high stability chromophores with a fluorine-containing polyimide for optical waveguide materials. W. Leng, Y. Zhou, Q. Xu, J. Liu

156. Synthesis and characterization of fire-safe polymers. A. J. Gavrin, E. Yoo, R. J. Farris, E. B. Coughlin


159. Synthesis and characterization of series monomers and polymers of 2,2'-biimidazole F. He, K. Shoshtari, H. Collier

160. Synthesis and ionic conductivity of hyperbranched poly(glycidol). X. Wang


162. Synthesis and thermal crosslinking characterization of poly(ether ether ketone) copolymers containing the structure unit(20%) of 1,5'-napthalene rings Y. Niu, Z. Jiang, G. Wang, Z. Wu


164. Well-defined Ru-coordinated block copolymers of 2-vinylpyridine with 2-(N-carbazolyl)ethyl methacrylate. Y. Cho, C. Ihn, H. Lee, J. Lee

165. Approach to synthesis of molecular reinforced polymeric materials: Graft copolymerization of vinyl monomers from chloromethylated polyethersulfone via ATRP. S. Zhu, G. Xiao, D. Yan

166. Free radical grafting of hindered phenol antioxidants onto PE and PP and their antioxidative effect. T. H. Kim, N. Lee

167. Approach towards high molecular mass polymers via metal complexing oligomers. U. S. Schubert, S. Stefan

168. Aromatic polyimide with new photoactive side groups and its applications in aligning liquid-crystals. S. W. Lee, S. I. Kim, M. Ree

169. Incorporation of phosphorus into conjugated polymers. Z. Jin, M. Escobar, B. L. Lucht


171. Fluorocarbinol-containing acrylic (co)polymers with high transparency at 157 nm. Y. C. Bae, C. K. Ober

172. Investigation of the effects of chain transfer agent architecture on the synthesis of near monodisperse poly(N,N-dimethylacrylamide) via RAFT M. S. Donovan, A. B. Lowe, C. L. McCormick

173. Synthesis of highly branched copolyether via cationic copolymerization of 3-methyl-3-oxetanemethanol with tetrahydrofuran. J. Hou, D. Yan


175. Synthesis of poly(methylene-b-styrene) by sequential living polymerization. X. Zhou, K. J. Shea

176. Synthesis of poly(thieno[3,4-b]thiophene) and its electrochemical characterization G. A. Setzing, K. Lee


178. Fluorescent hyperbranched polyester with color effect. C. Gao, J. Hou, D. Yan, B. Zhang, W. Tang

179. Study of the vinyl addition polymerization of polar substituted norbornenes with late transition metal catalysts. T. Sakai, B. Novak

180. Anionic polymerization of methyl methacrylate by using self ligated initiators. T. Nugay, Z. T. Hamoudi

181. AIBN-initiated copolymerization of methyl acrylate in the presence of ethylene. S. Elyashiv, A. Sen


2001 Fall Meeting

186. Preparation of dendritic macromolecules containing benzoxazine moiety. S. Choi, H. Ishida
187. Laterally attached SCLCPs designed to exhibit smectic C mesophases. C. Pugh, M. J. Rubal, P. Zhu
189. Synthesis and characterization of conjugated diblock copolymers. H. Wang, M. Ng, L. Yu
190. Synthesis and optical properties of symmetric organic molecules and polymers. X. Bi, D. Wang, Z. Xu, Z. Wu
191. Synthesis of methyl acrylate and \( \alpha \)-olefin copolymer by free radical polymerization. S. Liu, A. Sen
192. Novel aromatic polymers with 1,3-benzoazole groups in the main chain, polyamides derived from 2-(4-carboxyphenyl)benzimidazole-5-carboxylic acid: Synthesis and characterization. J. J. Ferreiro, A. E. Lozano, J. G. de la Campa, J. de Abajo
196. Polymerization of vinyl monomers with indium metal and indium halides. G. D. Mendenhall
197. Preparation of discotic liquid crystals containing stilbazole moiety. J. H. Lee, M. J. Han, S. H. Hwang, J. Y. Jho
200. Solution and solid state polymerization of 2,3-dicyano-5,7-dimethyl-6H-1,4-diazepine. I. Kim, B. M. Foxman, J. Njus, D. J. Sandman
201. Syntheses and evaluation of photopolymerized fluorinated acrylates as potential non-wettable coatings. B. S. Shemper, L. J. Mathias
202. Synthesis and characterization of adamantane-containing polyenaminonitriles. D. W. Han, J. A. Moore
203. Synthesis and characterization of alkyl-bithiazole-bis(3,4-ethylenedioxythiophene) co-oligomers for potential electronic applications. J. Cao, M. D. Curtis
205. Synthesis and characterization of ether-ketone hyperbranched polymers from mixtures of AB2 and AB monomers. J. Baek, L. Tan
207. Synthesis and characterization of highly blue-emitting poly(m-phenylenevinylene) derivative with different content of cis- and trans-olefins. L. Liao, Y. Pang
212. Synthesis and characterization of phenol modified PDMS/PHMS copolymers. H. Lin, C. Lin, M. Yang
213. Synthesis and characterization of polyisobutylene brushes on silicate substrates via carbocationic polymerization. I. Kim, A. P. Angelopoulos, R. Faust
214. Synthesis and characterization of polyisobutylene-based semicrystalline ternary ABC linear triblock copolymers. Y. Kwon, M. S. Kim, R. Faust
216. Synthesis and characterization of sulfonated polyimides for fuel cell application. H. Kim, M. H. Litt
217. Synthesis and characterization of syndiotactic polypropylene copolymers with higher \( \alpha \)-olefins. S. M. Graef, A. J. Van Reenen, U. M. Wahner, R. D. Sanderson, R. Brüll, H. Pasch
220. Synthesis and liquid crystalline state polymerization of mesogenic diacetylenes with a 1,3,5-triazine core C. J. Lee, J. Y. Chang
226. Synthesis and properties of liquid crystalline poly(oxyethylene)s containing (n-octylsulfonyl)alkythio or (n-octylsulfonyl)alkylsulfonyl side group. S. Han, S. Hong, M. Lim, J. Moon, J. Lee
229. Synthesis and property measurements of novel polyimide with bis(3-aminophenyl)-4-(trifluoromethyl)phenyl phosphine oxide. K. Jeong, Y. Jo, B. Myung, T. Youn
233. Synthesis of polyamides containing octadecanedioic acid. C. Bennett, R. D. Davis, L. J. Mathias
234. Synthesis of polyhydroxyazones by diazo coupling reaction of bisacetoacetamides with diazonium salts. B. J. Kim, J. Y. Chang
236. Synthesis, design, and preparation of binaphthyl containing chiral Schiff base liquid crystal X. Zhao, M. Wang, C. Chen, W. Zhang
238. Synthesis and characterization of poly(1-hexyl-3,4-dimethyl-2,5-pyrrrolylene) and its application to sensor I. T. Kim, S. W. Lee, T. H. Kwak, J. Y. Lee, H. S. Park, H. Nam, J. Ha
239. Synthesis and thermotropic liquid crystal behavior of novel poly(aryl ether ketone)s H. Li, C. Chen, Z. Jiang, W. Zhang, Z. Wu
242. Thermal cure modification of imide oligomers using new aryl-ethynyl end-caps. D. A. Schorzman, M. E. Wright
243. Thermally stable polymer network based on O-terphenyl. Y. H. So
244. Water-soluble fluorescent hyperbranched polysulfone-amine. C. Gao, D. Yan, B. Zhang, W. Tang

MONDAY MORNING
Section A
Unknown Site
Unknown Room

Nobel Laureates in Polymer Chemistry Symposium: A Polymer Chemistry Division- Society of Polymer Science Japan Cosponsored Symposium
Addresses from the 2000 Chemistry Nobel Laureates
K. J. Wynne and J. P. Armistead, Organizer

8:15 – Opening Remarks, J.P. Armistead
8:20 – Perspective, K.J. Wynne
8:30 – Special Introductory Remarks from the President of SPSJ, T. Kajima
9:35 – Intermission.
2001 Fall Meeting

Section B
Unknown Site
Unknown Room
Advances in Filler Technology
Filler Dispersion
F. D. Blum and N. Singh, Organizer

9:00 – 249. Natural fiber reinforcement of polymeric composites by reaction-induced phase separation. S. C. Jana, A. Prieto
10:00 – 251. Anionic synthesis of trialkoxyisilyl-functionalized polystyrenes and polybutadienes and their hydrolysis to hybrid star-branched structures. R. P. Quirk, K. Jiang
10:30 – Intermission.

Section C
Unknown Site
Unknown Room
General Papers
Synthesis/Characterization
A. Guymon, Organizer
T. Schuman, Presiding

8:50 – 256. 1-Vinyl-3-ethylidene-2-pyrrolidone and its applications. S. Y. Tseng, M. A. Tallon, P. F. Wolf
9:50 – 259. Free radical co- and terpolymerization reactions in microemulsions. I. Steinfatt, G. Schmidt-Naake
10:50 – 262. Hyperbranched macrominitiator for atom transfer radical polymerization. A. Carlmark, E. Malmström
12:10 – 266. Effect of methyl group substitution in diamine and copolymer composition on physical properties and thermal stability of 6FDA based copolymides. P. S. G. Krishnan, R. H. Vora, S. Veeramani

Polymers in Biomedical Applications
Cosponsored with Macromolecular Secretariat
See Page X
Three-Dimensional Silicon-Oxygen Cages (polyhedral oligomeric silsesquioxanes, POSS): Materials for the 21st Century

I

Coproduced with Materials Chemistry Secretariat

See Page X

MONDAY AFTERNOON

Section A

Unknown Site

Unknown Room

Nobel Laureates in Polymer Chemistry Symposium: A Polymer Chemistry Division- Society of Polymer Science Japan Cosponsored Symposium

Overviews and Current State-of-the-Art in Conducting Polymers and Related Fields

K. J. Wynne and J. P. Armistead, Organizer

1:00 – 267. Chemistry of conducting polymers. H. Meng, R. Helgeson, Y. Chen, F. Wudl
1:30 – 268. Electronic structure of conjugated oligomers and polymers: From solitons to excitons. J. Bredas
2:00 – 269. Polymer semiconductors: from integrated circuits, electronic papers to superconductors Z. Bao
2:30 – Intermission.
3:15 – 271. Light emitting diodes: Chemistry and device issues. J. Kido
3:45 – 272. Plastic solar cells. N. S. Sariciftci
4:15 – 273. Approaches to nonlithographic assembly: From polyelectrolyte multilayers to mesoscale systems. P. T. Hammond

Section B

Unknown Site

Unknown Room

Advances in Filler Technology

Novel Fillers

F. D. Blum and N. Singh, Organizer

1:30 – 274. Carbon nanotube filled polymer nanocomposites. P. M. Ajayan, L. S. Schadler
2:00 – 275. Conductive fillers for thermoplastic applications. J. Amarasekera, A. Burnell, C. Lietzau
3:00 – 277. Buckytubes! New nanotechnologies from carbon D. T. Colbert
3:30 – Intermission.
3:45 – 278. Characterization of phenolic resin dispersions formed via in situ polymerization. Y. Li, J. Zhao, G. Bian, K. Tang
4:45 – 280. Mechanical properties of modified starch filled poly(hydroxy ester ether) composites. J. W. Lawton, J. L. Willett
5:15 – 281. Unique additives and analyses. D. W. Dwight
5:45 – 282. Effects of $\text{Al}_2\text{O}_3$ on the ionic transport and conductivity properties of $\text{AL}_2\text{O}_3$

poly[bis(methoxyethoxyethoxy)phosphazene] based polymer electrolytes. Y. W. Chen-Yang, H. C. Chen, F. L. Lin

Section C

Unknown Site

Unknown Room

General Papers

Polymers in Electronic Applications

A. Guymon, Organizer

S. K. Young, Presiding
2001 Fall Meeting

1:30 – 283. Fluorine substituted conjugated system: Intramolecular charge transfer, emission properties, two-photon excitation, and prospective applications in polymer science B. Strehmel, A. M. Sarker  
5:10 – 294. Multi-dimensional polymer microstructures obtained using pattern forming states of liquid crystals as templates. S. W. Kang, S. Sprunt, L. Chien

TUESDAY MORNING
Section A  
Unknown Site  
Unknown Room  
Advances in Photoinitiated Polymerization  
New Free Radical Photopolymerization Chemistry  
K. Belfield and J. V. Crivello, Organizer

9:00 – 296. Investigation into the kinetics of thiol-ene and thiol-acrylate photopolymerizations using real-time FTIR. N. B. Cramer, C. N. Bowman  
10:20 – 299. Spectroscopic investigation of three component initiator systems. A. B. Scranton, D. Kim, K. S. Padon  
10:45 – 300. Sensitized photopolymerization of acrylic systems using 2,3-substituted maleimides. C. K. Nguyen, R. S. Smith, B. T. Cavitt, C. E. Hoyle, S. E. Jonsson, C. W. Miller, S. P. Pappas  

Section B  
Unknown Site  
Unknown Room  
Advances in Filler Technology  
Nanocomposites  
F. D. Blum and N. Singh, Organizer

9:00 – 304. Flame retardant properties of polycarbonate and montmorillonite clay nanocomposite blends. H. A. Stretz, J. H. Koo, V. M. Dimas, Y. Zhang
2001 Fall Meeting

10:00 – 306. Viscoelasticity of polymer nanocomposites. R. Krishnamoorti, C. A. Mitchell, B. F. Casanueva
10:30 – Intermission.

Section C
Unknown Site
Unknown Room
Industrial Sponsors Award
R. S. Moore and D. B. Chase, Organizer

8:30 – Introductory Remarks.
8:40 – 311. Temporal characteristics of polymer chain disentanglement. A. D. English
10:10 – Intermission.

Section D
Unknown Site
Unknown Room
Macromolecular Assemblies for Optical and Electronic Applications
Optical properties
K. J. Wynne, J. P. Armistead, D. J. Sandman, and A. Guiseppi-Ell, Organizer

9:00 – 317. High performance organic electronic memory cells. Y. Yang
10:00 – 319. Effect of polymer structure on the performance of LEDs. S. Vaidyanathan, H. Dong, M. Galvin
10:30 – 320. Polymer electro-luminescence: Effect of micro structure and morphology. F. E. Karasz
11:00 – 321. Surface tension-confined microfluidics. K. J. Wynne, G. E. Wnek, P. Lam

TUESDAY AFTERNOON
Section A
Unknown Site
Unknown Room
Advances in Photoinitiated Polymerization
New Photopolymerization Chemistry
K. Belfield and J. V. Crivello, Organizer

1:30 – 324. Two-photon induced photoinitiated polymerization. K. D. Belfield, J. Liu, K. J. Schafer, S. Andrasik
2:00 – 325. Mechanistic issues on two-photon polymerization. F. Nifati, R. Kannan, S. M. Kirkpatrick, J. W. Baur

2:50 – 327. Harvesting the fields of inorganic and organometallic photochemistry for new photoinitiators. C. Kutal, Y. Yamaguchi, W. Ding, X. Li, C. T. Sanderson, I. J. Amster


Career Development in the Polymer Industry - Fact vs. Fiction
Cosponsored with Women Chemists Committee, and Younger Chemists Committee
R. S. Moore, Organizer

Section B
Unknown Site
Unknown Room

1:30 – Introductory Remarks.

2:15 – 332. Managing your career in a changing company environment. L. F. Charbonneau


3:15 – Intermission.


4:00 – 335. Fun with plastics: Or how to "mold" your career. H. S. Lackritz

4:30 – 336. Challenges and pitfalls of a career in polymer information science. E. S. Wilks

5:00 – Concluding Remarks.

Section C
Unknown Site
Unknown Room

Combinatorial and Highly Parallel Techniques for New Materials
Tutorials and Integrated Approaches
J. Labadie, T. Long, and W. T. Ford, Organizer
J. Labadie, Organizer, Presiding

1:30 – 337. Perspectives in combinatorial and high throughput synthesis: Small molecules to polymers. J. Labadie


4:00 – 341. New polymers and dyes the combinatorial way. M. Bradley


Section D
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Macromolecular Assemblies for Optical and Electronic Applications
Macromolecular Assemblies
K. J. Wynne, J. P. Armstead, D. J. Sandman, and A. Guiseppi-Elli, Organizer

1:30 – Introductory Remarks.
1:50 – 343. Using polyelectrolyte multilayer assemblies to control surfaces and interfaces. M. Rubner


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4:40 – 349. Surface and bulk interactions of perfluorosulfonate ionomer membranes with polyelectrolyte solutions for fuel cell miniaturization and optical sensor applications. A. P. Angelopoulos

5:00 – 350. Sulfonated styrene-based proton exchange membranes. G. Wnek

5:30 – 351. Materials chemistry at the naval research laboratory. L. J. Buckley

TUESDAY EVENING

Unknown Site
Unknown Room

Joint POLY / PMSE Poster Session

Posters Presented on POLY Symposia Topics

Cosponsored with Division of Polymeric Materials: Science and Engineering
C. N. Bowman, Organizer

6:00 - 8:00

Posters Submitted for the Symposia on Three Dimensional Silicon-Oxygen Cages (Polyhedral Oligomeric Silsesquioxanes): Materials for the 21st Century, Cosponsored with Division of Inorganic Chemistry, Division of Physical Chemistry, and Materials Chemistry Secretariat


356. Variation of the microstructures of polyalkylsilsesquioxanes with substituent groups. E. S. Park, S. Park, H. Kim, J. Lee, H. W. Ro, S. Y. Yoon, D. Y. Yoon

Posters Submitted for the Symposia on Advances in Filler Technology,


358. Thermal analysis of ultrathin PS-2-PMDA copolymer films on silica. B. Zhang, F. D. Blum

359. Glass transition behavior of PMMA thin films. M. T. Kabomo, F. D. Blum

360. Thixotropic behavior of nitrile rubber composites containing waste rubber vulcanizates and carbon black. N. Nugay, Y. M. Sahin


363. Surlyn® /metal alkoide nanocomposites formed through polymer- in situ sol-gel reactions. P. R. Start, K. A. Mauritz


Posters Submitted for the Symposia on Advances in Photoinitiated Polymerization, Cosponsored with Division of Polymeric Materials: Science and Engineering


369. Photo-curable pressure sensitive adhesives using alkyl oxetane. H. Sasaki

370. Preparation and application of photocationic curable silsesquioxane having oxetanyl group. H. Suzuki, H. Sasaki


372. Effects of microencapsulation on stability and reactivity of pyrylium salts as cationic photoinitiators. E. Y. Komarova, K. Ren, D. C. Neckers

373. Vibrational overtone photopolymerization of methyl methacrylate. T. G. Gerasimov, D. L. Snavely
Study on photo-reaction of maleimide derivatives using Raman spectroscopy. E. Okazaki, A. Ito
Novel radiation cure epoxy resins. N. A. Nikolic, R. A. V. Schultz
Oxygen and radical photopolymerization in films. V. V. Krongauz, C. P. Chauali
UV-curable linseed oil based ceramics. A. H. Johnson, L. E. Meemken, M. D. Soucek
Photoinduced crosslinking of distyrylbenzene containing blockcopolymers for manufacture of new photoalignment layers. V. Strehmel, B. Stiller, B. Strehmel, A. M. Sarker, D. C. Neckers
Real-time fluorescence for determining the relative sensitivity of reactive and non-reactive probes. W. F. Jager, M. Wallin, M. V. Fernandez
Nanostructured organic-inorganic composites templated by photopolymerizable lyotropic liquid crystals. J. H. Norton, C. A. Guymon
Phenothiazine photosensitizers for onium salt photoinitiated cationic polymerization. Z. Gomurashvili, J. V. Crivello
Autohesion of polyethylene plates by the photo-induced grafting of methacrylamide. K. Yamada, M. Hirata
Posters Submitted for the Symposia on Advances in Polyurethanes.
Biocompatible waterborne polyurethane using L-lysine as extender. H. Chen, X. Yu
Ionic transport mechanism in polyurethane electrolytes. X. Wang
Kinetics of polyurethane networks prepared in a reactive medium. M. T. Tabka, J. Chenal, J. Widmaier
Preparation of heparin containing polyurethane membrane. J. M. Yang, H. T. Lin, P. Y. Wang
Structure-property relations of segmented blockcopolymers. M. van der Schuur, J. Feijen, R. J. Gaymans
Synthesis and characterization of hyperbranched poly(ether-urethane)s. L. Hong, X. Tang
Synthesis of amine-quinone polyurethanes with amine-quinone group in the backbone and acrylate group in the side chain of the polymer. S. B. Hait, D. E. Nikles
Synthesis of side chain amine-quinone polyurethanes and their use to inhibit the corrosion of iron particles. S. B. Hait, J. Y. Huh, D. E. Nikles
Posters Submitted for the Symposia on PVC and Related Polymers: Chemistry and Applications.
Polymerization of vinyl chloride in supercritical carbon dioxide. G. Li, K. P. Johnston, H. Zhou, S. Venumbaka, P. Cassidy
Effects of rate constant variations on the simulation of poly(vinyl chloride) reduction with tri-n-butyltin hydride. S. K. Knudson, W. H. Starnes
-Radiation-induced graft copolymerization of N-[4-(N' substituted amino carbonyl)phenyl]maleimideonto poly(vinyl chloride)films. A. S. Abdel-Naby
Investigation at chain segmental level of the miscibility of poly(vinyl chloride)/poly(methyl methacrylate) blends. Y. Mi, C. Lau
Posters Submitted for the Symposia on Tailored Synthetic Polymers as Biomaterials.
Biodegradable thermoreversible hydrogel and their biomedical applications. B. Jeong, A. Gutowska
Dendrimers as potential globular protein mimics. S. Thayumanavan, H. Zhao, P. Bharathi
Fabrication and characterization of a polymeric lipid membrane on a polyelectrolyte thin film. X. Sun, H. Liu, K. M. Faucher, J. Feng, E. L. Chaikof
Macroscopic and microscopic investigations of 2-hydroxyethyl methacrylate based molecularly imprinted networks. E. Oral, N.A. Peppas
Microengineered surfaces for biomedical applications based on a polymeric active ester. J. Lahann, R. Langer
Modified silicones for the stabilization of proteins and enzymes in emulsions: Potential vaccine delivery systems. P. M. Zelisko, M. A. Brook
Molecular design and preparation of bioinspired phospholipid polymer as novel biomaterials. K. Ishihara, Y. Iwasaki
More biocompatible polyurethanes via nitric oxide release. M. M. Batchelor, J. K. Politis, B. K. Oh, M. E. Meyerhoff
Pluronic-polyethyleneimine conjugates for gene delivery: Cell transport and transgene expression. C. L. Gebhart, S. Sridhihatala, S. Vinogradov, A. V. Kabanov
Syntheses of aminosaliclylate-based polyanhydride prodrugs: Esters, amides, and azos K. E. Uhrich, T. J. Anastasiou, M. L. Beaton
Synthesis of a polycarbonate of glycerol. W. C. Ray III, M. W. Grinstaff
Synthesis of low molecular weight polyelethylene particles for biomedical applications. Y. Haik, J. Chatterjee, C. Chen
Facile synthesis of hydroxylated dimethacrylates for use in biomedical applications. M. D. Weir, C. A. Khatri, J. M. Antonucci

Interferon \( \beta \) production of fibroblast cells cultured on various protein membranes containing cell binding domain sequences. Y. Takanashi, T. Ohno, M. Hara, C. Tanaka, T. Asakura, A. Higuchi


Novel biodegradable poly (ethylene glycol) scaffolds containing polyrotaxanes for cartilage tissue engineering. W. K. Lee, T. Ichii, T. Ooya, M. Katoh, T. Yamamoto, N. Yui

pH dependent inclusion complexation of poly(\( \varepsilon \)-lysine) with \( \alpha \)-cyclodextrin. K. M. Huh, T. Ooya, S. Sasaki, N. Yui


Ring-opening metathesis polymerization strategies to chemical and biological delivery agents. P. R. Hanson, A. Harned, D. A. Probst, B. A. Sheriff, K. W. C. Poon, C. Wiethoff, C. R. Middaugh

Supramolecular-structured hydrogel by inclusion complexation of poly(ethylene glycol) grafted dextran with \( \alpha \)-cyclodextrin. K. M. Huh, T. Ooya, W. K. Lee, S. Sasaki, N. Yui

Synthesis and characterization of self-assembling block copolymers containing adhesive moieties. K. Huang, B. P. Lee, P. B. Messersmith


Thermo-responsive supramolecular morphologies from styrene-b-peptide diblock oligomers. H. Klok, J. F. Langenwalter, M. A. Achar, S. Lecommandoux

Enhanced production of antigen (CEA) by mammalian cells cultured on various polymeric films. M. Hara, S. Adachi, A. Higuchi

Enzymatic and non-enzymatic pathways to formation of DOPA-modified PEG hydrogels. B. P. Lee, J. L. Dalsin, P. B. Messersmith

Controlled growth of silicon dioxide from tris(trimethylsiloxy)silyl monolayer and the study of protein adsorption on the resulting model surfaces. X. Jia, T. J. McCarthy

Divergent synthesis of dendrimers from glycerol and caproic acid. M. T. Morgan, M. W. Grinstaff

Effect of semi-IPN modification of phospholipid polymer on physical properties and biocompatibility of segmented polyurethane. Y. Iwasaki, N. Morimoto, K. Ishihara

Biologically inspired dendrimers based on glycerol and succinic acid. M. A. Carnahan, M. W. Grinstaff

Cell micropatterning substrates via two-photon-induced polymerization. E. B. Walsh, N. H. Grynaviski, M. W. Grinstaff
2001 Fall Meeting


Section B
Unknown Site
Unknown Room
**Advances in Polyurethanes**
J. McGrath, Organizer
S. Franyutti, Presiding

8:20 – Introductory Remarks.
8:30 – 437. Tutorial lecture on a review of essential polyurethane chemistry. **J. E. McGrath**

10:00 – 439. Polyurethanes in biomedical applications. **S. Cooper**
10:45 – 440. Structure/property behavior of segmented poly(ester urethanes) containing different hard segment content. **E. B. Orler**, D. A. Wrobleski, M. S. Campbell

11:15 – 441. Structure-property characterization of poly(urethane-urea)s fabricated with mixed soft segments of ultra-low monol poly(propylene glycol), poly(tetramethylene ether glycol), and tri(propylene glycol). **M. J. O’Sickey**, B. D. Lawrey, G. L. Wilkes

11:45 – 442. Quantification of competitive hydrogen bonding between hard and soft segments in polyurethanes: Quantum mechanical calculations and experimental results. **I. Yilgor**, E. Yilgor

Section C
Unknown Site
Unknown Room
**Combinatorial and Highly Parallel Techniques for New Materials**
**Synthesis and Surface Properties**
J. Labadie, T. Long, and W. T. Ford, Organizer
T. E. Long, Organizer, Presiding

8:30 – 443. Parallel synthetic approaches for the discovery of antimicrobial polypeptides. **M. Wyrsta**, T. J. Deming
9:00 – 444. Combining statistical design of experiments with in-parallel polymerization methodologies. D. T. Williamson, T. E. Long


10:00 – 446. Designing phase selectivity into polymer supports. **D. E. Bergbreiter**

11:00 – 448. Characterization of surface energy effects on morphology of thin diblock copolymer films by high throughput techniques. A. P. Smith, A. Sehgal, E. J. Amis, A. Karim


Section D
Unknown Site
Unknown Room
**PVC and Related Polymers: Chemistry and Applications**
**Polymerization, Structural Modification**
W. H. Starnes, Organizer, Presiding

8:30 – Introductory Remarks.
8:40 – 451. PVC, origin, growth, and future **D. Braun**
2001 Fall Meeting

9:40 – 453. Reaction of single site olefin polymerization catalysts with vinyl chloride. R. F. Jordan
10:30 – 455. New polymers by living radical graft copolymerization initiated from the structural defects of poly(vinyl chloride) and by living radical polymerization of vinyl chloride. V. Percec, A. D. Asanidei, F. Asgarzadeh, E. Ramirez, A. Capotto
10:55 – 456. PVC derivatives by carbocationic techniques. Z. Pi, J. P. Kennedy
11:45 – 458. Degradative transformations of poly(vinyl chloride) to new potentially useful products. T. Szakács, B. Iván, F. Polleisz

WEDNESDAY AFTERNOON

Section A
Unknown Site
Unknown Room
Advances in Photoinitiated Polymerization
Cationic Photopolymerizations
K. Belfield and J. V. Crivello, Organizer

1:30 – 459. Synergistic free radical effects in photoinitiated cationic polymerization. J. V. Crivello
2:00 – 460. Addition fragmentation agents with radical generating sites as photoinitiators for cationic polymerization. Y. Yagci, A. Onen
2:30 – 461. Diazonium salts as cationic photoinitiators: Radical and cationic aspects. U. Mueller
3:00 – 462. 2,3-Dihydrofuran: A special vinyl ether. O. Nuyken, H. Braun
3:30 – 463. Development of monomolecular, oligomeric, and polymeric photosensitizers for photoinitiated cationic polymerization. Y. Hua, J. V. Crivello
4:45 – 466. Study of the photoinitiated cationic polymerization of 3,4-epoxy-1-butene. S. N. Falling, J. V. Crivello, M. Sangermano

Section B
Unknown Site
Unknown Room
Advances in Polyurethanes
J. McGrath, Organizer
W. Risen and J. E. McGrath, Presiding

2:00 – 468. Exploring urea phase connectivity in flexible polyurethane foam formulations using lithium chloride as a probe. A. Aneja, G. L. Wilkes
3:00 – 470. Microdomain morphology and phase separation of poly(urethane urea) block copolymers. J. T. Garrett, C. A. Siedlecki, J. S. Lin, J. Runt
4:30 – 473. Synthesis and characterization of polyurethanes and their blends with thermally conductive aluminum nitride. Y. S. Kim, J. Rolland, J. E. McGrath

Section C
Unknown Site
Unknown Room
Combinatorial and Highly Parallel Techniques for New Materials
Characterization and Bulk Properties

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1:30 – 474. High throughput measurements of polymer and polymer solution physical properties. P. Mansky


3:00 – 477. Vapor detection using arrays of conducting polymer composite chemiresistors. N. S. Lewis, S. Briglin, M. S. Freund, A. Hopkins


4:00 – 479. Optimization and mechanism studies of polymerization reactions using automated HPLC. T. C. Schunk, D. R. Robello, T. A. Davis, D. Linehan, M. Bonanno


Section D
Unknown Site
Unknown Room

PVC and Related Polymers: Chemistry and Applications
Physical Properties, Blends
W. H. Starnes, Organizer
D. E. Witenhafer, Presiding

1:30 – Introductory Remarks.
1:35 – 481. Property enhancements of PVC. M. Gilbert, D. J. Hitt

2:00 – 482. PVC-clay nanocomposites preparation, thermal, and mechanical properties D. Wang, D. Parlow, C. A. Wilkie

2:25 – 483. Retrosynthetic analysis of poly(vinyl chloride) particles. R. E. Lukas


3:40 – 486. Compatibilization of blends containing poly(vinyl chloride) and a polyolefin elastomer by blocky chlorinated polyethylenes. E. A. Eastwood, M. D. Dadmun, N. Pourahmady, C. Lepilleur


THURSDAY MORNING
Section A
Unknown Site
Unknown Room

Advances in Photoinitiated Polymerization
New and Emerging Applications for Photoinitiated Polymerizations
K. Belfield and J. V. Crivello, Organizer


9:00 – 489. Radiation curable materials designed to aid de-inking. R. S. Davidson, M. Andrews, D. R. Illsley


9:55 – 491. Photocurable, hydrophobic oligomers based on liquid polybutadiene B. Yang, B. Schaeffer


10:45 – 493. UV curable acrylated oligomers: Effect of structural variation on liquid and cured film properties. A. J. Tortorello


2001 Fall Meeting

Section B
Unknown Site
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PVC and Related Polymers: Chemistry and Applications
Degradation, Weathering
W. H. Starnes, Organizer
D. E. Witenhafer, Presiding

8:30 - Introductory Remarks.
8:35 – 496. Achievements and research tasks for poly(vinyl chloride) aging and stabilization: Research centers in Russia. G. E. Zaikov, K. S. Minsker
9:00 – 497. Prediction of pinking of PVC profiles in mild climatic conditions. J. E. Lemaire
9:25 – 498. Photostabilization of poly(vinyl chloride) by protective coatings. C. Decker
9:50 – 499. Weatherability of plastics compared to the fundamental bond strengths of the main polymer. J. W. Summers, E. B. Rabinovitch
10:15 – 500. Influence of atmospheric pollutants on the natural and artificial aging of rigid polyvinyl chloride. N. Belhaneche-Bensemra

Belaneche-Bensemra
11:05 – 502. Chemiluminescence study on medical PVC degradation and comparison with other techniques. L. Woo, S. Y. Ding, C. L. Sandford

Section C
Unknown Site
Unknown Room
General Papers
Synthesis
A. Guymon, Organizer
D. J. Dyer, Presiding

8:30 – 504. Free radical polymerization in room temperature ionic liquids. H. Zhang, K. Hong, J. W. Mays
9:10 – 506. Total synthesis and emission properties of poly[(9,9-dihexylfluorene)-co-(NN'-diphenyl-NN'-di(p-butylphenyl)-1,4-phenylenediamine] F. Raymond, S. S. Xiao, M. T. Nguyen
9:30 – 507. Acyclic diene metathesis depolymerization of elastomers using ruthenium catalysts. S. W. Craig, E. B. Coughlin
11:50 – 514. Synthesis and characterization of highly branched poly(ester-amine)s. C. Gao, D. Yan
12:10 – 515. Synthesis and properties of novel macrocycles and polymers based on restricted rotation. Y. S. Chong, K. D. Shimizu

THURSDAY AFTERNOON
Section A
Unknown Site
Unknown Room
2001 Fall Meeting

Advances in Photoinitiated Polymerization
New Methods for Conducting and Monitoring Photopolymerizations
K. Belfield and J. V. Crivello, Organizer

1:30 – 516. Time-resolved photothermal techniques for the investigation of photoinitiators and radical reactions. X. Allonas, J. Lalevee, J. Fouassier
2:00 – 517. Relative sensitivities of reactive and non-reactive fluorescent probes. W. F. Jager, O. van den Berg

Section B
Unknown Site
Unknown Room
PVC and Related Polymers: Chemistry and Applications
Thermal Degradation and Stabilization
W. H. Starnes, Organizer, Presiding

1:30 – Introductory Remarks.
1:35 – 522. HCl quantification in pyrolysis-gas chromatography studies of hydrochlorocarbon polymers. I. W. Parsons, R. S. Lehrle
2:00 – 523. Thermal degradation and stabilization of ethylene-chlorotrifluoroethylene-n-butylacrylate copolymer. J. A. Abusene, G. Camino, C. Manzoni, S. Radice

Section C
Unknown Site
Unknown Room
General Papers
Characterization
A. Guymon, Organizer
J. L. P. Jessop, Presiding

1:30 – 530. Direct comparison of micellization properties of amphiphilic block copolymers of ethylene oxide and butylene oxide, (EO)_n(BO)_m, and (EO)_n(BO)_{2m}. G. Yu, A. A. Krumnow
1:50 – 531. Blob model to monitor and quantitatively characterize polymer segment encounters by fluorescence. S. Kanagalingam, C. F. Ngan, J. Dukamel
2:30 – 533. Effect of monovalent-multivalent cation exchange on the thermodynamic properties of polyacrylate hydrogels. F. Horkay, I. Tasaki, P. J. Basser
3:10 – 535. Miscibility and phase study of the blends of poly(hydroxy ether of biphenol A) and poly(e-caprolactone) by high resolution solid state NMR. C. Lau, Y. Mi
2001 Fall Meeting

3:50 – 537. Prediction of cage effects in free-radical initiators from diffusion coefficients of small molecules. G. D. Mendenhall
4:10 – 538. Quartz crystal mirobalance: Based ion sensors. D. W. Howie Jr., D. A. Hoagland
4:30 – 539. Investigation of benzoxazine initiation mechanism via cationic ring-opening. P. Chutayothin, H. Ishida, S. Rowan
4:50 – 540. Interactions in poly(lactic acid) and poly(hydroxy ester ether) blends studied by FTIR spectroscopy and differential scanning calorimetry. X. Cao, S. H. Gordon, J. L. Willett, D. J. Sessa
5:10 – 541. Gelation crystallization of semicrystalline polymers from solvents with large molar volume. Q. Xue, J. Chen