

Balint Koroskenyi, Ph.D.

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Experience

Assistant Research Professor Department of Plastics Engineering
University of Massachusetts Lowell, Lowell, MA
(07/02-present)

- Drug delivery and therapeutic compositions based on biopolymers

Senior Research Engineer Biodegradable Polymer Research Center
Department of Plastics Engineering,
(05/99-07/02) University of Massachusetts Lowell, Lowell, MA

- Research on biodegradable polymers, including development of new technologies for the environment and natural biomaterials for pharmaceutical and nutraceutical applications

Consultant Bioconcept, Derry, NH
(12/99-06/00)

Consultant Physical Sciences, Andover, MA
(11/99-06/00)

Research/Teaching Assistant Department of Chemistry, University of
Massachusetts Lowell, Lowell, MA
(01/95-04/99)

- Investigation of cationic polymerization
- Synthesis of various well-defined polyisobutylenes
- Organic synthesis of monomeric compounds
- Setup, operation and maintenance of controlled atmosphere and variable temperature glove box
- Supervising and instructing undergraduate chemistry lab
- Tutoring undergraduate chemistry students

Staff Chemist Department of Toxicology, Food Control and
 (09/94-01/95) Veterinary Institute, Debrecen, Hungary

- Monitoring commercial food products using thin layer chromatography
- Translating related documents

Education

Doctor of Philosophy Polymer Science/Plastics Engineering,
 (06/99) University of Massachusetts Lowell, Lowell, MA

Master of Science Chemistry, University of Massachusetts Lowell,
 (10/98) Lowell, MA

Master of Science Chemistry, Lajos Kossuth University, Debrecen,
 (06/94) Hungary

Teacher's Diploma Chemistry, Lajos Kossuth University, Debrecen,
 (06/94) Hungary

Advanced Degree English-Hungarian Special Translation in
 (06/94) Chemistry, Lajos Kossuth University, Debrecen,
 Hungary

Technical skills

- Synthesis and chemical modifications of biodegradable polymers
- Synthesis of various block copolymers
- Cationic polymerizations under controlled atmosphere and temperature
- Atom Transfer Radical Polymerization
- Organic syntheses for the preparation of model compounds and reactants, and for polymer chain end functionalization
- Transformation reactions via organoboranes
- Molecular weight characterization by Gel Permeation Chromatography (GPC) and Vapor Pressure Osmometry (VPO)
- Structural analysis using infrared, UV and fluorescence spectroscopies
- Nuclear Magnetic Resonance Spectroscopy including ^1H , ^{13}C , and two dimensional NMR measurements
- Atomic Force Microscopy (AFM)
- Thermal analysis (DSC, TGA, etc.)
- Constant Stress Rheometer
- Solution fiber spinning

Presentations

- B. Koroskenyi, G. Li, S.P. McCarthy: "Chemical Derivatization of Polysaccharides Activated by Microwave Radiation", Gordon Research Conference on the Chemistry of Polysaccharides, Mount Holyoke, South Hadley, Massachusetts, July 22-27, 2001.
- B. Koroskenyi, G. Li, S.P. McCarthy: "Synthesis of Biodegradable Polymers Activated by Microwave Radiation", 6th International Scientific Workshop on Biodegradable Polymers and Plastics and 9th Annual Meeting of the Bio/Environmentally Degradable Polymer Society, Honolulu, Hawaii, December 12-16, 2000.
- J. A. H. Jones, Y. Mahadevaiah, B. Koroskenyi, S. Mehta, S. P. McCarthy: "'Kinetic' Welding of Plastic Parts", Annual Technical Conference of the Society of Plastics Engineers, Orlando, Florida, May 10, 2000.
- B. Koroskenyi, S. Hakani, S. Mehta, S. P. McCarthy: "Alternatives for PVC", Toxics Use Reduction Planner Continuing Education Conference, Marlborough, Massachusetts, April 25, 2000.
- B. Koroskenyi and R. Faust: "One-pot Synthesis of Amine Terminated Polyisobutylene Via Haloboration-Initiation", 216th National Meeting of the American Chemical Society, Boston, Massachusetts, August 23, 1998.
- Y. Kwon, X. Cao, Zs. Fodor, B. Koroskenyi, and R. Faust: "Synthesis of Poly(α -Methylstyrene-*b*-Isobutylene) Copolymers by Sequential Living Cationic Polymerization", 3rd National Graduate Research Polymer Conference, Akron, Ohio, June 21-24, 1997.
- B. Koroskenyi and R. Faust: "Synthesis of sec-Amine Functional PIB via Haloboration-Initiation", 3rd National Graduate Research Polymer Conference, Akron, Ohio, June 21-24, 1997.
- B. Koroskenyi and R. Faust: "Synthesis of α -Hydroxyl, ω -Methoxycarbonyl Asymmetric Telechelic Polyisobutylene", the 213th National Meeting of the American Chemical Society, San Francisco, California, April 13, 1997.

Publications

- B. Koroskenyi and S. P. McCarthy: "Microwave-assisted Solvent-free or Aqueous-based Synthesis of Biodegradable Polymers" *J. Polym. Env.* **2002**, 10(3), 93.
- B. Koroskenyi and S. P. McCarthy: "Synthesis of Acetylated Konjac Glucomannan and Effect of Degree of Acetylation on Water Absorbency" *Biomacromolecules* **2001**, 2(3), 824.
- J. A. H. Jones, Y. Mahadevaiah, B. Koroskenyi, S. Mehta, and Stephen P. McCarthy: "'Kinetic' Welding of Plastic Parts", 58th *Society of Plastics Engineers Annual Conference Proceedings* 2000, 46(1), 1232-1236.
- B. Koroskenyi and R. Faust, "Initiation via Haloboration in Living Cationic Polymerization. 6. A Novel Method for the Synthesis of Primary Amine Functional Polyisobutylenes", *J. Macromol. Sci., Pure Appl. Chem.* **1999**, A36(12), 1879.
- B. Koroskenyi and R. Faust, "Initiation via Haloboration in Living Cationic Polymerization. 5. Facile Synthesis of sec-Amine Functional Polyisobutylenes", *J. Macromol. Sci., Pure Appl. Chem.* **1999**, A36(4), 471.
- B. Koroskenyi and R. Faust, "One-pot Synthesis of Amine Terminated Polyisobutylene Via Haloboration-Initiation", *Polymer Preprints* **1998**, 39(2), 492.
- B. Koroskenyi and R. Faust, "Synthesis and Characterization of α -Hydroxyl- ω -Methoxycarbonyl and α -Hydroxyl, ω -Carboxyl Asymmetric Telechelic Polyisobutylenes", *ACS Symp. Ser.* **1998**, 704, p. 135.
- B. Koroskenyi, L. Wang, R. Faust, "Initiation via Haloboration in Living Cationic Polymerization. The Polymerization of α -Methylstyrene", IUPAC, International Symposium on Ionic Polymerization. Paris, July 7-11, **1997**, p 154.
- B. Koroskenyi and R. Faust, "Synthesis of α -Hydroxyl, ω -Methoxycarbonyl Asymmetric Telechelic Polyisobutylene", *ACS Polym. Mater. Sci. Eng.* **1997**, 76, 13.
- B. Koroskenyi, L. Wang, and R. Faust, "Initiation Via Haloboration in Living Cationic Polymerization 4. The Polymerization of α -Methylstyrene", *Macromolecules* **1997**, 30, 7667.

Affiliation

American Chemical Society (ACS).

BioEnvironmental Polymer Society (BEPS).