

BioMacromolecular Engineering Research Group



<http://gozips.uakron.edu/~jpuskas/>

Judit E. Puskas

Department of Polymer Science
The University of Akron, Akron, OH 44325-3909
jpuskas@uakron.edu

This lecture will give an overview of the research program of our group. Our focus is living/controlled polymerization for BioMacromolecular Engineering. The following topics will be discussed:

1. Green Polymer Chemistry
 - Enzyme-catalyzed Polymer Functionalization
 - Biomimetic Polymerizations
 - Natural Living Carbocationic Polymerization
 - Model architectures for Natural Rubber
2. Biomaterials
 - Polyisobutylene-based Biomaterials
 - Surface Modification
 - Probing the Polymer/Bio Interface
3. Living/controlled polymerization
 - Carbocationic
 - RAFT
 - Controlled IniMer-type Polymerizations
 - CIMP Controlled Carbocationic IM Polymerization
 - CRIMP Controlled Radical IM Polymerization

CWRU, January 16, 2009