

## CURRICULUM VITAE

### SECTION 1: BIOGRAPHICAL

**Surname:** Puskas

**Given names:** Judit Eva

**Date:** 09-15-2008

**Signature:** \_\_\_\_\_

**Address:**

**Business address:**

College of Polymer Science and Polymer Engineering  
Department of Polymer Science  
The University of Akron  
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## **SECTION 2: EDUCATION**

### **2.1. Post Secondary Education**

- 1990 Technical University of Budapest, Chemical Engineering, Ph.D. of Plastics and Rubber Technology (Polymer Engineering)
- 1985 Hungarian Academy of Sciences, Candidate of Chemical Sciences (Ph.D.)
- 1983 MLEE College Budapest, Diploma of Economy and Philosophy
- 1977 Technical University of Budapest, Chemical Engineering, Diploma of Organic and Biochemical Engineering (Master's Degree)

### **2.2. Title of Graduate Theses and Supervisor's Name**

- 1983 "Living Carbocationic Polymerizations" (polymerization kinetics and solvent effects; invention of forced ideal copolymerization in starved reactors), Professor Joseph P. Kennedy (University of Akron, USA), Professors Ferenc Tüdös and Tibor Kelen (Hungarian Academy of Sciences).
- 1977 "Gamma-irradiated polymerization of N-vinyl phtalimide" (polymerization kinetics and radical structure by ESR), Professors Jozsef Varga and Jozsef Menczel (Technical University of Budapest, Faculty of Chemical Engineering, Department of Plastics and Rubber Technology).

### **2.3. General Area(s) of Academic interest**

Green polymer chemistry, natural rubber biosynthesis, enzymatic catalysis, biomimetic polymerizations, polymers for biomedical application, polymer synthesis and characterization (SEC expert); polymer structure-property relationships, living/controlled polymerizations, elastomer/rubber science and engineering, biomacromolecular engineering, polymerization kinetics/mechanisms, women in science and engineering, science and engineering education.

## **SECTION 3: EMPLOYMENT**

### **3.1. Present Employment**

- 2004- Professor, Department of Polymer Science, The University of Akron  
Adjunct Professor, Queen's University, Canada
- 2004-2008 LANXESS (Bayer) Professor
- 1996- Department of Chemical and Biochemical Engineering, Faculty of Engineering, the University of Western Ontario
- 1998- Professor
- 1998-2003 Bayer/NSERC Industrial Research Chair
- 2001-2004 Research Scientist, Lawson Health Research Centre)
- 1996-98 Associate Professor
- 1996- Director , Macromolecular Engineering Research Centre

### 3.2. Employment History at Bayer Inc., Rubber Division

1994-96 Group Leader, Butyl Polymerization Technology  
1993 Associate Research Scientist, Butyl Technology  
1990 Senior Research Scientist, Butyl Technology  
1989 Research Scientist, Polybutadiene Technology

### 3.3. Relevant Previous Employment

1986-89 Staff Visiting Scientist, University of Akron, USA  
1980-81

1984-1986 Senior Consulting Engineer and Research Scientist, Industrial Research Institute for Synthetic Materials

1977-84 Process engineer, Microelectronics Enterprises

### 3.4. Leaves granted

2003-2004 Sabbatical - UWO  
2002 3-months Approved Absence – Visiting Professor, University of Bayreuth, Germany  
1980-81 Special leave with pay - Visiting Scientist at the University of Akron, USA  
1986-89

### 3.4. Distinctions, Honours, Fellowships, Scholarships, Awards

2007 Best Poster Awards in Green Polymer Chemistry: ACS Rubber Division, SPE  
2006 Poster on the Hill, REU Program: **C. L. Hoch, L. Dos Santos**, and J. E. Puskas: Synthesis and Purification of 4-(2-methoxy-isopropyl) styrene Inimer. April 24-25, Washington D.C.; Inventors' Wall of Fame, UA: US 4,946,899 generated >\$5 million in license fees.  
2004-08 LANXESS Industrial Chair in Polymer Science  
2003 Best student poster: A.Ebied, B.Kumar, J.E.Puskas, B. Lamperd: Novel Butyl Composites for Less-lethal Ammunition. ACS Rubber Division, 164<sup>th</sup> Technical Meeting, October 14-17, Cleveland, OH  
Best Paper – Honourable Mention; Best Symposium: J.E.Puskas, Y. Chen: Novel Thermoplastic Elastomers for Biomedical Applications. Paper#40, ACS Rubber Division, 163<sup>rd</sup> Technical Meeting, April 28-30, San Francisco, CA  
2002-04 DFG (Deutsche Forschungsgemeinschaft) – Mercator Visiting Professor, University of Bayreuth, Germany  
2000 Premier's Research Excellence Award, Canada  
1999 Professional Engineers Ontario – Engineering Medal, Research and Development  
1998-03 Bayer/NSERC Industrial Research Chair in Elastomer technology  
1997 Bayer Sarnia Site Quality Excellence Award  
1995 Bayer North American Quality Excellence Award

- 1986-89 Visiting Scientist Fellowship at the University of Akron  
 1985 National Award for Outstanding Research in Polymer Science, the Hungarian Academy of Sciences;  
 1980-81 Visiting Scientist Fellowship at the University of Akron  
 1977 Technical University of Budapest Student Council Award -1 month visit to Finland

## SECTION 4: DISSEMINATION OF KNOWLEDGE

### 4.1. Supervision

#### Post-Doctoral Fellows (present location)

2008-	Dr. Goy Teck Lim	“New Nanocomposites for Biomedical and Commodity Applications”
	Dr. Narayan Radhakrishnan	“Biomimetic Processes”
	Dr. Gunay Kibarar	“Green Polymer Chemistry: Enzyme Catalysis”
2006-2007	Dr. Haibo Li	“Natural Rubber Biosynthesis”
	Dr. U Subramanyam (co-supervised with J. P. Kennedy)	“Synthesis of Functionalized Polyisobutylenes”
2006-2007	Dr. Reichel Samuel	“Natural Rubber Biosynthesis”
2005	Dr. K. Cong	“Synthesis and Characterization of Novel Double-functionalized Arborescent Block Copolymers”
2004-2005	Dr. Yaohong Chen <b>(Bridgestone, USA)</b>	“Synthesis of Star-branched and Novel Arborescent (Dendritic) Model Polymer Structures by Living Carbocationic Polymerization for Systematic Structure-Property Relationship Studies”
2003	Dr. Bhuvneesh Kumar <b>(India)</b>	“Less-lethal Ammunition For Peace Keeping” "High Speed Extrusion of PE and PP"
2001-2003	Dr. Yaohong Chen	"Amphiphilic Networks for Biomedical Application"
2001-2002	Dr. Santanu Chattopadhyay <b>(IIT Kharagpur, India)</b>	"Structure-Property Relationships in Star-Branched and Arborescent Polyisobutylenes"
	Dr. Amit Naskar <b>(India)</b>	"Structure-Property Relationships in Star-Branched and Arborescent Polystyrenes"
2000-2001	Dr. Prince Antony <b>(3M)</b>	"Plastic Blends for Automotive Applications"
2000	Dr. Garba Yahaya <b>(Canada)</b>	"Polyisobutylene-based Amphiphilic Polymers for Biomedical applications"
1999-2000	Dr. Sandra Botzenhardt	“Multiarm-star Block Copolymers”
	Dr. Markus Krombholz <b>(Germany)</b>	“PIB-based biomaterials
1998-1999	Dr. Armin Michel <b>(Hercules Inc., Belgium)</b>	“Mid-IR Real-time Monitoring of Polymerization Processes”
1997-2000	Dr. Shahzad Barghi <b>(Assistant Prof., UWO)</b>	“Characterization of Heterogeneous Catalysts and Adsorbents by Electrical Measurements”

Joint supervision – Professor Volker Altstadt, Bayreuth, Germany

2002	Dr. Mirosława El-Fray <b>(Assistant Prof., University of Szczecin, Poland)</b> Dr. Afrika Yebra	"Novel Segmented Polyester TPEs for Biomedical Application"  "WAX and SAXS of Polyamide Nanocomposites"
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**Ph. D.**

2007-	Paul Pavka	"New Nanocomposites for Biomedical Applications"
	Kwang Su Seo	"Novel Dendrimers for Drug Delivery Applications"
2006-	Andrew Heidenreich	"Synthesis of Arborescent Polyisoprenes by RAFT"
	Kurtis Chiang	"Natural Living Carbocationic Polymerization"
	Reza Lalani - resigned	"Effect of Surface Properties on the Biocompatibility of SIBS"
	Adeyemi Adepetun (transferred to MS)	"Scale-up of the Synthesis of Novel Polymers"
2005-	Mustafa Sen	"Synthesis and Characterization of Double- Functionalized Surface-Modified Biomaterials"
	Lyn Munoz Robledo (transferred to MS)	"Biocompatibility of Synthetic Materials"
2004-	Elizabeth Foreman	"Synthesis and Characterization of Double- Functionalized Surface-Modified Biomaterials"
	Emilie Gautriaud (transferred to MS)	"Towards the Synthesis of Polyisobutylene- <i>b</i> - Natural Rubber"
	Lucas Dos Santos	"Inimer Copolymerizations and Synthesis and Characterization of Arborescent Polymers"
	Serap Hayat	"Mechanism of Carbocationic Initiation by Epoxides"
2001- 2004	Sohel Shaikh <b>(PDF, Case WR, USA)</b> Yongmoon Kwon <b>(Innovia, Inc.)</b> Yasser Dahman <b>(Assistant Prof., Ryerson Polytechnic University, Toronto)</b>	"Living Carbocationic Homo- and Copolymerizations" "Multiarm-star and Arborescent Thermoplastic Elastomers" "Bioseparation using a Fluidized Bed of Functionalized Polystyrenes"
2001- 2002	Nancy Yue (transferred to Chemistry)	"Polyisobutylene-based Amphiphilic Polymers for Biomedical applications"
1998- 2000	Christophe Paulo <b>(Rhodia, France)</b>	"New Hyperbranched Block Copolymers by Carbocationic Polymerization"

Joint supervision – Bayreuth, Germany

2002	Lars Fölster <b>(Porsche, Germany)</b> Paola Uribe-Arocha <b>(BASF)</b>	"Fatigue modelling of Polyurethane Elastomers"  "Rubber Toughening of Epoxy Resins"
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**Germany)**  
Axel Mantey (**Basell, Germany**)

“Blends of PPO and SIBS Block Copolymers”

Joint supervision – visiting students

1999	Monika Hoffmann ( <b>Kraiburg TPE GmbH, Germany</b> )	“IR-monitoring of ADMET Reactions”
1998	Bryan Brister ( <b>GE Plastics, USA</b> )	“New Star-branched Block Copolymers by Carbocationic Polymerization”, U. Southern Mississippi, U.S.A.
1998	Jürgen Ismeyer ( <b>Bayer AG, Germany</b> )	“Copolymers of Isobutylene”, Technical U. Munich, Germany
1997	Michael Lanzendörfer ( <b>Habilitant, U. Bayreuth</b> )	“Kinetics and Mechanism of Living Isobutylene Polymerization”; U. Bayreuth, Germany
1997	Martin Grassmüller ( <b>Bheringer Pharma, Germany</b> )	“Branched and Hyperbranched Polyisobutylenes”, Technical U. Munich, Germany

### Master’s

2006-08	Lyn Munoz Robledo	“Attachment and Growth of Aortic Adventitial Fibroblasts on Polyisobutylene-Based Thermoplastic Elastomers”
	William Brown	“Scale-up of the Synthesis of Inimers”
	Jessica Kurasch	“Scale-up of the Synthesis of Arborescent Block Copolymers”
2005-	Kathleen Perevosnik	“Reinforcing the Hard Phase of SIBS Block Copolymers”
2004-2006	Emilie Gautriaud ( <b>Saint Gobain, USA</b> )	“Towards the Synthesis of Polyisobutylene- <i>b</i> -Natural Rubber”
	Matthew Tomkins (Queen’s U, coadvised with Prof. M. Kontopoulou) ( <b>Ph. D. student, Queen’s</b> )	“Dynamic Creep and Fatigue Properties of Biorubbers”
2004-2005	Polly Chan (Queen’s U, coadvised with Prof. K. McAuley)	“Kinetics of Carbocationic Polymerizations: The Quest for True Rate Constants”
2003-2004	Rudolf Deutschmann ( <b>Ph. D. student, U. Waterloo</b> )	“Real-time Visualization of the Adsorption Front in a Fixed Bed using Electrical Measurements”
2002-2003	Ali Soleymannezhad ( <b>Viscotek Inc., USA</b> )	“Characterization of Arborescent Polyisobutylenes by SEC and DSC”.
	Amer Ebied ( <b>Viscotek Inc., Canada</b> )	“Polymers for Law Enforcement”
2001-2003	Hedvig Nagy ( <b>Maple Leaf Foods, Canada</b> )	“Synthesis and Characterization of Novel Polymeric Surfactants for the Food Industry”
	Donna Padavan ( <b>Ph. D., UWO</b> )	“Novel Hybrid Synthetic/Natural Block Copolymers”
	Matthew Chatterton (Queen's University, coadvised with Prof. M. Cunningham)	“Synthesis of Functionalized Polystyrenes for Bioseparation”.
2000-	Alexandru Dragomirescu	“Practical Approach to Monitor

2002	<b>(ABC Plastics, Canada)</b> Keunhwe Kim	Adsorption/Drying and Catalytic Activity On-line" "Investigation of the Kinetics of Living IB Polymerization by in-situ FTIR"
2000-01	Luo Wei ( <b>Ph.D. , UToronto</b> ) Yongmoon Kwon (transferred into Ph. D.) Yasser Dahman (transferred into Ph. D.)	"Living Carbocationic Polymerization of Styrenes" "Multiarm-star Thermoplastic Elastomers" "Bioseparation using a Fluidized Bed of Functionalized Polystyrenes"
1999-01	Nathan DelVeccio <b>(Suncor, Canada)</b>	"New Method for the Measurement of Adsorption Isotherms" (NSERC Scholar)
1996-98	Wayne Pattern <b>(Woodbridge Foam,Canada)</b>	"Optimization of the Mechanical Properties of Novel Thermoplastic Elastomers"
1996-98	Linda Oraha Al-Rais	"New Initiators for the Living Polymerization of Isobutylene"
1997-99	Haihong Peng	"Kinetic Simulation of Isobutylene Polymerization"

Joint supervision – Professor Volker Altstädt, Bayreuth, Germany

2002	Mathias Nolte	"Dynamic Mechanical Analysis of Non-lethal Ammunition"
	Magdalena Renke-Gluszko	"Novel Block Copolymers for Asphalt Modification"

#### 4.2 Supervision of research projects for undergraduate and graduate students (present position in parentheses)

2008	Sara Poroski, Doreen Martof (NSF REU); Damien Chapman (NSF RET)
2007	Joseph Kasper, Allia Kay Lindsay, Victoria Sain (NSF REU Scholars); Marissa Tousley (High School); Sara Poroski (High School)
2006	Allia Kaye Lindsay (NSF REU scholar); Marissa Tousley (High School)
2005	Cortney Hoch (NSF REU Scholar) Krishnan Aadithya (MS in Biomedical Engineering, UA)
2003	Matthew Tomkins (NSERC UG Scholar)
2002	Matthew Tomkins (NSERC UG Scholar)
2001	Amer Ebied; Ali Soleymannezhad (at the University of Bayreuth, Germany); Carol Baddur, Matthew Tomkins (NSERC UG Scholars)
2000	Lily Jiang, Melanie Cheng-Kai-On, Sarah van Zand ((NSERC UG Scholars); Amer Ebied; Ali Soleymannezhad, Abukhater Fares (WorkStudy); Danielle Dewan (Bayer Intern)
1999	Eraclis Tzaras and Jeremy McIntire (NSERC UG Scholars); <b>Sumitra Angepat (NSERC PGSA,UBC)</b> Adeeba Habash, Ari Lesser, Greg Marr, Franck Minery (Bayer Intern)
1998	Eraclis Tzaras, Sumitra Angepat, <b>Bradley Dochstader (3M, Canada)</b> , <b>Keri Diamond (Ph. D. student, USM, USA)</b> , <b>Pierre-Yves Le Straat (FNG, France)</b> Peter Nguyen (WorkStudy), <b>Erin Petersen (NSERC PGSA, UWO)</b>
1997	<b>Danielle Jamieson (NSERC PGSA, Queen's)</b> , <b>Nathan Delveccio (NSERC PGSA, UWO)</b> , <b>Klara Esztegar (Rubber Division, Bayer Inc. Canada)</b>

1991-96	Directed the research projects of undergraduate and graduate coop students
1995	K. Bosnick, Queens U. Engineering Chemistry
1994	B. Cass, U. Waterloo, Chemical Engineering
1994	M. Zaky, U. Waterloo, Chemical Engineering
1994	M. Moraczewski, U. Western Ontario, Chemical Engineering
1993	S. Smith, U. Waterloo, Chemical Engineering
1992, 93, 95	C. Wilds, Concordia U. Chemistry ( <b>Assistant Prof., Concordia U., Montreal</b> )
1991	R. Hutchinson U. Waterloo, Chemical Engineering
1986-89	Assisted Professor Kennedy with the research and training of Ph.D. students at the University of Akron: W. Hager, G. Richards; C. Chen; J. Kurian

#### 4.3. Research Associates

2003-2004	Donna Padavan ( <b>Ph. D. student, UWO</b> )	"Synthesis of Alanine-capped Polyisobutylene"
	Hedvig Nagy ( <b>Freeze Dry Foods Inc., Canada</b> )	"Synthesis of Polyisobutylene-Polystyrene Diblock by Coupling"
2002-2003	Rudolf Deutschmann ( <b>Ph. D. Student, U. Waterloo</b> )	"Real-time Visualization of the Adsorption Front in a Fixed Bed using Electrical Measurements"
2000-2002	Cindy Simmons ( <b>consultant</b> )	"Prototype Instrument Development for the Prediction of Adsorption Breakthrough"; lab manager
2000-2001	Jingshe Song ( <b>Ph. D. student, U of Toronto</b> )	"Polyisobutylene-based Amphiphilic Polymers for Biomedical applications"
1999-2000	George Stojanovic ( <b>U. Guelph</b> )	Research engineer; lab manager

#### 4.4. Visiting Scholars

2000	Professor Jenő Bodis, Babes-Bolyai University, Cluj, Romania	"Direct Functionalization of Polyisobutylene"; advising students
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#### 4.5. Examinations

2008	Faina Cao, Haci Erdem: Ph.D. defense; Camila Graces: Res. Pres.
2007	Sedat Gunes: Ph. D. proposal; Haci Erdem, Manuela Ocampo: Res. Pres.; Crystal Cyrus: Formal
2006	Jeremy Warren, Claire Wysocki, Sumana R. Chowdhury, Matthew Panzer (Chemistry): Ph. D. defense; Sumana R. Chowdhury, Y. Wang, Camila Graces : Research Presentation; Ryan van Horn: Formal Seminar, Matthew Panzer
2003	Kostadinka Lilova, Ph.D. Comprehensive Exam (Chem.&Biochem.Eng., UWO)
2002	Chunbao Xu, Ph. D. Comprehensive Exam (Chem.&Biochem.Eng., UWO) Syed Zahidi, Ph. D. Comprehensive Exam (Chem.&Biochem.Eng., UWO) David Quesnel, Ph. D. Comprehensive Exam (Chem.&Biochem.Eng., UWO)
2001	Faquan Zheng, Ph. D. (Chemical Engineering, McMaster U) Andrew Kee, Ph. D. (Chemistry, U. Waterloo) Peter Van Belois, Ph. D. (Chemistry, UWO) Bangyou Wu, Ph.D. Comprehensive Exam (Chem.&Biochem.Eng., UWO)
2000	Terry Thibb M.E.Sc. (Mec.&Mater. Eng., UWO) Mini Samuel, Ph. D. (Chemistry, UWO)

- 1999 Michael Lanzendörfer, Ph.D. (Chemistry, U.Bayreuth, Germany)  
Chantal McRoberts, Ph.D. (Chemistry, UWO)  
David Buckland, M.E.Sc. (Civil Eng., UWO)
- 1998 Ying Ma, M.E.Sc. (Chem&Biochem.Eng., UWO)  
Shirin Basrami, Ph.D. Comprehensive Exam (Chem.&Biochem.Eng.,UWO)
- 1997 Yuebin Lu, M.E.Sc. (Mech.&Mater. Eng.,UWO)
- 1996 Ed Brecevic, M.Sc. (Mech.&Mater.Eng., UWO)

#### 4.6. Seminars given at various teaching institutions

- 2008 Novel Polymers for Drug Release. Technical University of Szczecin, Poland, May 26.  
Unraveling the Mystery of Natural Rubber Biosynthesis. The University of Bordeaux, France September 16.
- 2007 Novel Thermoplastic Elastomers for Biomedical and Commodity Applications. Peking University, China May 22  
Natural Living Carbocationic Polymerization. Chemical Institute of China, May 21.  
New Polymers for Biomedical Applications. Technical University of Budapest, May 8, Budapest, Hungary  
Analysis of the Architecture of Branched Polymers by Multidetector SEC. Louisiana State University, March 27, Baton Rouge, LA  
Tulane University, March 26, New Orleans, LA  
Novel Polymers for Drug Delivery Applications. U. Michigan, March 9, Ann Arbor, MI
- 2006 Novel Thermoplastic Elastomers for Biomedical and Commodity Applications. University of Minnesota, MN. Nov. 30, St. Paul, MN  
Biorubbers: Design, Synthesis and Characterization. The University of Akron, Department of Polymer Engineering, Jan. 17, Akron, OH
- 2005 Living Polymerization for the Synthesis of Novel Biomaterials. Osaka City University; Osaka University; Kyoto University, Japan
- 2004 Biorubbers. The University of Bordeaux, France; The University of Szczecin, Poland; Technical University of Munich, Germany; True Rate Constants in Carbocationic Polymerizations. Ludwig-Maximilian University, Munich, Germany.
- 2003 Structure-Property Relationships in Novel Branched Polymers Targeted for Biomedical Applications. The University of Akron, Ohio, USA  
Biorubbers. The University of Szczecin, Poland
- 2002 New Developments in Living Carbocationic Isobutylene and Styrene Polymerization: Branched Structures and Direct Functionalization. National Chemical Laboratory, Pune, India; 'Investigation of the Surface Morphology of Novel PIB-PS Thermoplastic Elastomers' University of Bayreuth, Germany
- 2001 'New Developments in Living Isobutylene Polymerization; Branched and Hyperbranched Structures, and Direct Functionalization'. University of Waterloo
- 1999 'Structure-Property Relationships of Polyisobutylene-based Thermoplastic Elastomers' McGill University, Montreal; McMaster University, Hamilton  
'Mid-IR Monitoring of the Living Polymerization of Isobutylene Initiated by epoxides' University of Bayreuth, Germany;  
Mid-IR Monitoring of Polymerization Processes, Technical University of Vienna
- 1998 'Reaction Kinetics of Polymerization Processes Based on Mechanistic Models'

- Queen's University, Kingston  
 'New Initiators for the Living Carbocationic Polymerization of Isobutylene'  
 University of Waterloo, Waterloo  
 'Structure-Property Relationships of Polyisobutylene-based Thermoplastic  
 Elastomers' Technical University of Harburg-Hamburg, Germany  
 1997 'Mid-IR Monitoring and Simulation of the Living Polymerization of Isobutylene'  
 University of Bayreuth; Technical University of Berlin; Technical University of  
 Munich  
 1996 'Living Carbocationic Polymerization for Macromolecular Design' University of  
 Bayreuth, Germany  
 1995 'Prediction of the Unsaturation On-line During the Butyl Manufacturing process'  
 University of Bradford, UK  
 1994 'Kinetics of the Living Carbocationic Polymerization of Isobutylene' University  
 of Bradford, UK  
 1993 'Kinetics of the Epoxidation of Butyl Rubber' University of Ghent, Belgium  
 1992 'Kinetic modelling in living polymerizations' University of Waterloo  
 1991 'New Thermoplastic Elastomers by Macromolecular Engineering', Queen's  
 University, Kingston  
 1989 Visiting schools to talk about non-traditional occupations for girls  
 1981 'Forced ideal cationic copolymerization in starved reactors' Trinity College,  
 Dublin, Ireland; Newcastle Under Lyme, Birmingham, Manchester, UK, Paris,  
 France

#### 4.7 Courses and workshops developed and taught

##### UAkron

- 2008 Elastomer Technology; Informal Seminar I and II; 601 Polymer Concepts;  
 Carbocationic Polymerization;  
 2007 602 Synthesis and Chemical Behaviour of Polymers  
 2006 Carbocationic Polymerizations. New Graduate Course; Informal Seminar I and  
 II; 601 Polymer Concepts  
 2004 Polymer Concepts. Copolymerization; Ring-opening Polymerizations; Polymers  
 for Biomedical Applications.

##### UWO

- 2003 C.B.E. 392b "Polymer Engineering"; E.S. 637 b "Macromolecular Reaction  
 Engineering" graduate course  
 2002 C.B.E. 392b "Polymer Engineering" / E.S. 637 b "Macromolecular Reaction  
 Engineering" graduate course; C.B.E. 415;  
 2001- C.B.E. 497 a/b "Chemical Process and Plant Design"  
 2000 C.B.E. 392b "Polymer Engineering"  
 1997- present E.S. 637 b "Macromolecular Reaction Engineering" graduate course  
 1996-97 E.S. 497 a/b "Chemical Process and Plant Design"  
 1996-present E.S. 216 a/b "Industrial Organic Processes"

##### Other

- 2005-present Chemistry and Physics of Elastomers. Akron Polymer Training Center  
 2002-present 'Elastomer/Rubber technology' Graduate course, University of Bayreuth, Germany  
 1993-present Management training MBTI workshops.  
 1998 'The Engineering Personality' student workshops 48<sup>th</sup> CSChE Conference, London,  
 Ontario

1997	'The Engineering Personality: Breaking the Mould' PEO WEAC Meeting
1995-96	Bayer internal technician training – polymerization kinetics
1995	Practical application of reaction kinetics in rubber manufacturing – 3 day intensive course offered at the Rubber Division Meeting of the American Chemical Society

## **SECTION 5: RESEARCH, SCHOLARLY ACTIVITIES OR CREATIVE ACTIVITY**

### **Life-time summary**

<b>Refereed Journals</b>	<b>98</b>
<b>Book Chapters</b>	<b>12</b>
<b>Patents and patent applications</b>	<b>23</b>
<b>Non-refereed Journals</b>	<b>12</b>
<b>Conference Proceedings</b>	<b>76</b>
<b>Technical reports</b>	<b>101</b>
<b>Total</b>	<b>321</b>
<b>Other Publications</b>	
<b>Invited presentations</b>	<b>60</b>
<b>Presentations at professional meetings</b>	<b>86</b>
<b>Seminars (USA, Canada, Europe, Asia)</b>	<b>30</b>

### **5.1 Articles in refereed journals (student coauthors in bold, undergraduate students *Italics*)**

#### **Published:**

98. **M. Y. Sen**, J. E. Puskas, S. Ummadisetty, J. P. Kennedy: Green Polymer Chemistry: II Enzymatic Synthesis of Methacrylate-terminated Polyisobutylenes. *Macromol. Rapid Comm.* 29, 1598-1602 (2008)
97. **K. Kunal**, M. Paluch, C. M. Roland, J. E. Puskas, Y. Chen, A. P. Sokolov: Polyisobutylene: A Most Unusual Polymer. *J. Polym. Sci. B, Polym. Physics*, 46, 1390-99 (2008)
96. **S. Hayat Soytaş**, J. E. Puskas, K. Kulbaba: Real-time FTIR Monitoring of the Mechanism of Initiation of Isobutylene Polymerizations by Epoxide/Lewis Acid Systems. *J. Polym. Sci. A, Polym. Chem.*, 46, 3611-18 (2008)
95. M. Piatek, M. El Fray, J. E. Puskas: Radiation Degradation and Crosslinking of Elastomeric Biomaterials. *Elastomery* 12, 20-23 (2008)
94. J. E. Puskas, **M. Y. Sen**, **J. R. Kasper**: Green Polymer Chemistry: Telechelic Poly(ethylene glycols) via Enzymatic Catalysis. *J. Polym. Sci., Chem.*, 46, 324-27 (2008) **Featured by VCH-Materials Views 6/5/08**
93. J. E. Puskas, **E. A. Foreman**, **L. M. Dos Santos**, **S. Hayat-Soytaş**: Characterization of Polymer Architectures by Multidetector Size Exclusion Chromatography. *Makromol. Chem, Macromol. Symp.*, 261, 85-90 (2008)
92. **E. A. Foreman**, J. E. Puskas, G. Kaszas: Synthesis and Characterization of Arborescent (Hyperbranched) Polyisobutylenes from the 4-(1,2-oxirane-isopropyl)styrene Inimer. *J. Polym. Sci., Chem.*, 45, 5847-5856 (2007)
91. Sui, C.; McKenna, G.B.; Puskas, J.E. Viscoelastic Properties of Arborescent Polyisobutylenes.

- JOR, 51, 1143-1169 (2007)
90. J.E. Puskas, **L. Dos Santos**, **M. Sen**, G. Kaszas: Effect of Architecture on The Properties of Polyisobutylene-Based TPE Materials. *Rubber Chem.&Tech.*, 80, 3, 671-681 (2007)
  89. J. E. Puskas, **P. Chan**, K. B. McAuley, G. Kaszas, **S. Shaikh**: Living Carbocationic Copolymerization of Isobutylene with Styrene. *J. Polym. Sci. Chem.*, 45, 1778-87 (2007)
  88. Puskas, J.E., **Kwon, Y.**, Altstädt, V., Kontopoulou, M. Blends of Poly(2,6-dimethyl-1,4-phenylene oxide) (PPO) with Polystyrene-based Thermoplastic Rubbers; a Comparative Study. *Polymer*, 48, 590-597 (2007)
  87. J.E.Puskas, **L. Dos Santos**, Gabor Kaszas: Innovation in Material Science: The Chameleon Block Copolymer. *J. Polym. Sci., Chem*, 44, 6494-6497 (2006)
  86. J.E. Puskas: Biomacromolecular Engineering: Design, Synthesis and Characterization. One-pot Synthesis of Block Copolymers of Arborescent Polyisobutylene and Polystyrene. *Polym. Adv. Techn.*, 17(9-10), 615-620 (2006)
  85. J. E. Puskas, **E. Gautriaud**, A. Deffieux, J. P. Kennedy : Natural rubber biosynthesis – a living carbocationic polymerization? *Prog. Polym. Sci.*, 31(6), 533-548 (2006)
  84. J.E. Puskas, K.B. McAuley, P.S.W. Chan, S. W. Fundamental aspects of measuring copolymerization reactivity ratios using real-time FTIR monitoring. *Macromolecular Symposia 243 (Polymer Reaction Engineering VI)*, 46-52 (2006).
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6. S.Barghi, J.E.Puskas: 3<sup>rd</sup> Interim Report, Bayer Contract (Project I) Dec. 26, 1997 (22 pp)
5. N.Delveccio, J.Rose, S.Barghi, J.E.Puskas: Progress Report, Bayer Contract (Project I) Aug.15, 1997 (28 pp)
4. J.E. Puskas, **M.Lanzendörfer**: .2<sup>nd</sup> Interim Report, Bayer Contract (Project II) July 31, 1997 (25 pp)
3. J.E.Puskas, S.Barghi: Progress report, Bayer Contract (Project I), June 30,1997 (42 pp)
2. S.Barghi, J.E.Puskas: Progress Report, Bayer Contract (Project I), May 23, 1997 (11 pp)
1. J.E. Puskas: 1<sup>st</sup> Interim Report, Bayer Contract (Projects I&II), Jan. 31,1997 (20 pp)

1989 - 96

Bayer Inc., Rubber Division  
49 confidential reports

1984 – 86

- J. E.Puskas: Acrylate- and Methacrylate-based Coatings and Paints (100 pp)
- G.Pogany, J.Puskas: Emulsion Copolymerization of Styrene and Acrylic Acid (30 pp)
- J.E.Puskas, K. Belina: Photosensitive Polyimide for the Electronics Industry(40 pp)
- J.E.Puskas, G.Nagy: Novolac-based Powder Coating (10 pp)

1977 - 83

- A.Toth and J.E.Puskas: EDX Analysis of PSG (30 pp)
- J.E.Puskas: Statistical Process Control in CVD Processes (30 pp)
- J.E.Puskas: Etching of CVD Layers (20 pp)
- J.E.Puskas: Negative Photoresist for Electronics Applications (40 pp)

## 5.7. Invited Papers Presented at Technical Meetings

- IP'09, July Krakow, Poland (2009)
- Novel Interpenetrating Network Biomaterials. January, Cairo, Egypt (2009)
- Novel High Temperature Styrenic TPE Nanocomposites. ACS Rubber Division Meeting, October, KY (2008)
- Effect of Surface Topology and Polymer Properties on Drug Release Profiles. September 17-20, Bordeaux, France (2008)
- Unraveling the Mystery of Natural Rubber Biosynthesis. 10<sup>th</sup> Annual UNESCO/IUPAC Conference on Macromolecules & Materials, September 8-11, Kruger National Park, South Africa (2008)
- Effect of the Surface Properties on the Biocompatibility of Novel Polyisobutylene-based Interpenetrating Network Biomaterials. UWEB, WA (2008)
- 62. Unraveling the Mystery of Natural Rubber Biosynthesis. International Latex Conference, July 22-23, Cleveland, OH (2008)
- 61. Drug Release from Novel Rubbery Coatings. PNG2008, June 20-26, Cyprus (2008)
- 60. Thermorheological Properties of Styrenic Thermoplastic Elastomers with Linear and Dendritic (Arborescent) Polyisobutylene Cores. 2<sup>nd</sup> TPE Symposium, ACS Rubber Division, May 1-2, Dearborn, MI (2008)
- 59.. Novel Filler-Reinforced Thermoplastic Elastomers. 2<sup>nd</sup> TPE Symposium, ACS Rubber Division, May 1-2, Dearborn, MI (2008)
- 58. Novel Thermoplastic Rubbers based on Functionalized Arborescent (dendritic) Polyisobutylene. ACS Spring Meeting, April 6-10, New Orleans, LS (2008)
- 57. Effect of Surface Topology and Polymer Properties on Drug Release Profiles. ACS Spring Meeting, April 6-10, New Orleans, LS (2008)
- 56. Stars And Dendritic Structures by Living Carbocationic Polymerization ; In Situ FTIR Monitoring. CLP07, October 25-28, Antalya, Turkey (2007)
- 55. Investigation of the Mechanism of Initiation in Living Carbocationic Polymerizations using In Situ FTIR Monitoring. IP07, September 2-7, Banz, Germany (2007)
- 54. Inimer-Type Living Polymerization of Isobutylene and p-Methylstyrene From The 4-(1,2-Oxirane-Isopropyl) Styrene Inimer. Plenary lecture. HIPF2007, May 13-17, Hangzhou, China (2007)
- 53. Novel Polymeric Coatings for Controlled Drug Release. The Waterborne Symposium “Advances in Intelligent Coatings Design”, Feb. 14-16, New Orleans, LA (2007)
- 52. Analysis of Novel Branched Biomaterials using Multidetector SEC (MALS, VIS, QELLS). Plenary Lecture. 2006 International Light Scattering Colloquium, Wyatt Technologies, October 15-17, Santa Barbara, CA (2006)

51. Effect Of Architecture on the Properties of Polyisobutylene-Based TPE Materials. ACS Rubber Division, 170th Technical Meeting, October 10-12, Cincinnati, OH (2006)
50. Direct Surface Functionalization of Novel Biomaterials. International Symposium "Biomaterials", Oct. 1-4, Hamburg, Germany (2006)
49. Real-time FTIR monitoring of the self-condensing vinyl homo- and copolymerization of 4-methoxyisopropyl-styrene with isobutylene. IUPAC Macro 2006, World Polymer Congress, July 7-15, Rio de Janeiro, Brazil (2006)
48. Natural Living Polymerization. 1st World Rubber Summit, July 26-29, Bangkok, Thailand (2006)
47. Real-Time FTIR Monitoring of the Carbocationic Copolymerization of Isobutylene with Styrene. Engineering Conferences International, Polymer Reaction Engineering VI, Halifax, Nova Scotia, Canada, May 21-26 (2006)
46. Effect of Architecture on the Properties of Polyisobutylene-based Thermoplastic Elastomers. TPE Conference, ACS Rubber Division, Akron, OH, May 11-12 (2006)
45. Natural Living Polymerization. PPF-IX., Maui, Hawaii, December 10-14 (2005).
44. Real-Time FTIR Monitoring Of The Carbocationic Copolymerization Of Isobutylene With Styrene. IP2005, Goa, India, October 19-24 (2005)
43. Biomacromolecular Engineering: Design, Synthesis and Characterization. Keynote lecture, PAT, Budapest, Hungary, September 13-16, (2005)
42. Controlled Drug Delivery from Novel Functionalized Polystyrene Microsphere Networks. PCN, Budapest, Hungary, September 11-13 (2005)
41. Synthesis and Characterization of Novel Nucleobase-functionalized Polymers for Biomedical Applications. APME, Istanbul, Turkey, August 14-19 (2005)
40. Evaluation of the Fatigue Properties of Novel Polyisobutylene-Polystyrene Thermoplastic Elastomer in Comparison with Other Rubbery Biomaterials. ACS Rubber Division, 165<sup>th</sup> Technical Meeting, October 4-7, Cincinnati, OH (2004)
39. High-throughput Method to Measure Copolymerization Reactivity Ratios using Real-time FTIR Monitoring. 40<sup>th</sup> IUPAC International Symposium on Macromolecules. July 2-9, Paris, France (2004)
38. Comparison Of The Performance Of Vulcanized Rubbers And Elastomer/TPE Composites For Specialty Applications. Meeting of the Polymer Processing Society PPS, June 20-24, Akron, OH (2004)
37. Investigation of the effect of structure on the efficiency of novel epoxide initiators in living isobutylene polymerization. 30<sup>th</sup> IUPAC Congress and 88<sup>th</sup> Meeting of the Canadian Society for Chemistry, August 10-15, Ottawa, Canada (2003)
36. Comparison Of The Mechanism And Kinetics Of Living Carbocationic Isobutylene And Styrene Polymerizations Based On Real-Time FTIR Monitoring. IP '03 IUPAC International Symposium on Ionic Polymerizations. June 30-July 4, Boston, MA (2003)
35. In-Situ Monitoring of Polymerization Processes Using Fiber-optic Mid-FTIR Probes: Kinetic Studies and Reactivity Ratio Measurements. Gordon Research Conferences on Elastomers, Networks and Gels. June 29-July 4, New London, NH (2003)
34. Novel Thymine - Functionalized Polystyrenes for Applications in Biotechnology. Europolymer Congress, June 23-27, 2003, Royal Institute of Technology, Stockholm, Sweden
33. Novel Thermoplastic Elastomers for Biomedical Application. 163<sup>rd</sup> Technical Meeting, April 28-30, San Francisco, CA (2003)
32. Synthesis and Characterization of  $\alpha\omega$ - Dihydroxyl-Telechelic Polyisobutylene via Living Carbocationic Initiation and Coupling. ACS Rubber Division, 163<sup>rd</sup> Technical Meeting, April 28-30, San Francisco, CA (2003)
31. Novel Dendritic (Arborescent) Polysiobutylene-Polystyrene Thermoplastic Elastomers. ACS Rubber Division, 162<sup>nd</sup> Technical Meeting, Oct. 8-11, Pittsburgh, PA (2002)
30. Study of the Surface Morphology of Polyisobutylene-based Block Copolymer Biomaterials by

- Atomic Force Microscopy. Modest, June 30-July 4, Budapest, Hungary (2002)
29. In-Situ Monitoring of Polymerization Processes using Fiber Optic Mid-FTIR Probes. ISPAC 15, June 17-19, Enschede, The Netherlands (2002)
  28. Study of the Surface Morphology of Polyisobutylene-Based Block Copolymers by Atomic Force Microscopy. International Conference on Progress in Disperse System. Jan. 16-18, Calcutta, India (2002) – Plenary Lecture
  27. Novel Polyisobutylene-based Thermoplastic Elastomers. Rubcon 2002, Jan 12-13, Kharagpur, India (2002)
  26. Kinetic Simulation of Living Isobutylene Polymerization Based on a Mechanistic Model. Microsymposium on Modeling of Novel Polymerization Processes. 7<sup>th</sup> Pacific Polymer Conference, December 3-7, Oaxaca, Mexico (2001)
  25. Study of the Surface Morphology of Polyisobutylene-Based Block Copolymers by Atomic Force Microscopy. IUPAC Symposium on Ionic Polymerization. Oct. 22-26, Kreta, Greece (2001)
  24. Study of the Surface Morphology of Polyisobutylene-Based Block Copolymers by Atomic Force Microscopy. 4<sup>th</sup> International Conference on Advanced Polymers via Macromolecular Engineering (APME 2001), Aug 18-23, Gatlinburg, USA (2001)
  23. Effect Of Hard And Soft Segment Composition On The Morphology And Mechanical Properties Of Polystyrene-Polyisobutylene Thermoplastic Elastomeric Block Copolymers. Polymer Processing Society Meeting, May 21-24, Montreal, Canada (2001)
  22. The Rheological and Mechanical Properties of Blends Based on Polystyrene-Polyisobutylene-Polystyrene Triblock Copolymer and Polystyrene. Polymer Processing Society Meeting, May 21-24, Montreal, Canada (2001)
  21. Real-time Fiber Optic Mid-IR Monitoring of Solution and Suspension Polymerizations. ACS Spring Meeting, San Diego, CA, USA (2001)
  20. Synthesis and Characterization of Hyperbranched Polyisobutylenes. Pacificchem 2000, Honolulu, HA (2000)
  19. Blends of Butyl and Bromobutyl Rubbers with Polyisobutylene-Polystyrene Thermoplastic Elastomers with Improved Processability and Physical Properties. ACS Rubber Division, 158<sup>th</sup> Technical Meeting, Cincinnati, OH (2000)
  18. Synthesis and Characterization of Hyperbranched Polyisobutylenes. World Polymer Congress (IUPAC Macro 2000), Warsaw, Poland (2000)
  17. Synthesis and Characterization of Star-Branched and Hyperbranched Polyisobutylenes. ACS Rubber Division, 157<sup>th</sup> Technical Meeting, Dallas, TX (2000)
  16. New Polymeric Structures by Living Carbocationic Polymerization of Olefins. 82<sup>nd</sup> CSC Conference, Toronto (1999).
  15. Living Carbocationic Polymerization: a Kinetic Phenomenon Harnessed for Macromolecular Engineering. Gordon Research Conference on Elastomers, Networks and Gels, New London NH, USA (1999)
  14. Synthesis of Hydroxy-functionalized Polyisobutylenes. 39<sup>th</sup> Microsymposium, Prague Meetings on Macromolecules, Prague, Czech Republic (1999)
  13. Kinetics of Living Isobutylene Polymerizations. NATO ASI “Ionic Polymerizations and Related Processes, London, Ontario, Canada (1998)
  12. Structure-Property Relationships in Polyisobutylene-Polystyrene Block Copolymers. 151st ACS Rubber Division Meeting, Anaheim, CA, USA (1997)
  11. Star-Branched and Hyperbranched Polyisobutylenes. IP’97 International Symposium on Ionic Polymerizations, Paris, France (1997)
  10. S.Smith-Kehl and B.Cass: Instrument for the Simultaneous Monitoring of Permittivity and Conductivity in Ionic Polymerizations. ACS Spring Meeting, New Orleans, LA, USA (1996)
  9. New Catalyst Systems for the Synthesis of Butyl Rubbers with Bimodal Molecular Weight

- Distribution and Long-Chain Branching, ACS PMSE Symposium in Honour of Prof. Kennedy, Spring Meeting, Anaheim, CA, USA (1995)
8. Kinetics of the Cationic Homopolymerization of Isobutylene with Reversible Chain Transfer, MacroAkron, 35th IUPAC Symposium on Macromolecules, Akron OH USA (1994)
  7. Practical Applications of Reaction Kinetics in Rubber Manufacturing, ACS PMSE, Fall Meeting, Washington D.C. USA (1994)
  6. New Thermoplastic Elastomers; Structure-Property Relationships. Gordon Research Conference on Elastomers, Networks and Gels, Newport, RI, USA(1993)
  5. New Block Copolymers by Carbocationic Techniques TPE'91, Fourth International Conference on Thermoplastic Elastomer Markets&Products, Orlando, FL USA (1991)
  4. New Block Copolymers by Living Cationic Polymerization, Gordon Research Conference on Elastomers, New London NH, USA (1991)
  3. Chain Carriers in Living Isobutylene Polymerizations, 10th International Symposium on Cationic Polymerizations and Related Ionic Processes, Balatonfüred, Hungary (1991)
  2. Living Copolymerization of Isobutylene and Isoprene, Sympol 90 International Symposium for Professor P.Sigwalt's Birthday, Paris, France, (1990)
  1. New Polyisobutylene-based UV-curable Coatings, 9th International Symposium on Cationic Polymerizations and Related Ionic Processes, Strasbourg, France (1989)

### 5.8. Presentations at Technical Meetings (including posters)

- p. J. Foley, R. Hoerr, M. Matuszewski, J. Puskas, G. Haugstad, J. Dong, C. Frethem. A Comprehensive Approach for Real-time Drug Release Imaging from Polymeric Coatings. SFB Annual Meeting (2008)
103. El Fray, M.; Puskas, J.E., Altstädt, V. Evaluation of The Fatigue Properties of Rubbery Biomaterials using the Hysteresis Method. World Biomaterials Congress, May 27-June 1, Amsterdam, The Netherlands (2008)
  102. **Foreman, E.;** Puskas, J. E.; El Fray, M.; Prowans, P.; Piatek, M. Biocompatibility Studies of Novel Polyisobutylene-based Biomaterials. World Biomaterials Congress, May 27-June 1, Amsterdam, The Netherlands (2008)
  101. *Kasper, J. R.;* **Sen, M. Y.;** Puskas, J. E. Towards the synthesis of functionalized polymers via green chemistry: studies of enzyme catalyzed transesterification. ACS Spring Meeting, April 6-10, New Orleans, LS (2008)
  100. *Sain, V.;* **Foreman, E. A.;** Puskas, J. E. **Surface characterization of functionalized polyisobutylene.** ACS Spring Meeting, April 6-10, New Orleans, LS (2008)
  99. *Lindsay, A. K.;* Li, H.; Puskas, J. E. *In situ* FTIR monitoring of model systems designed to mimic natural rubber (NR) biosynthesis. ACS Spring Meeting, April 6-10, New Orleans, LS (2008)
  98. **Foreman, E.;** Puskas, J. E.; El Fray, M.; Prowans, P.; Piatek, M. Biocompatibility studies of novel polyisobutylene-based biomaterials. ACS Spring Meeting, April 6-10, New Orleans, LS (2008)
  97. **Sen, M. Y.;** Puskas, J. E. Green polymer chemistry: telechelic poly(ethylene glycol)s via enzymatic catalysis. ACS Spring Meeting, April 6-10, New Orleans, LS (2008)
  96. **Dos Santos, L. M.;** Puskas, J. E. Self-condensing vinyl polymerization of 4-(2-methoxyisopropyl) styrene. ACS Spring Meeting, April 6-10, New Orleans, LS (2008)
  95. **S. Hayat-Soytas,** J.E.Puskas, K. Kulbaba: Synthesis of Star-Branched Polyisobutylenes by Living Carbocationic Polymerization Initiated by the Hexaepoxysqualene/BCl<sub>3</sub> System. Proceedings of CLP07, October 25-28, Antalya, Turkey, 13-14 (2007)

94. **E. Foreman, L.Dos Santos, J.E. Puskas:** Synthesis and SEC Characterization of  
 P Polyisobutylenes from the 4-(1,2-Epoxy-Isopropyl) Styrene Inimer. ACS Rubber Division Fall Meeting, October 16-18, Akron, OH (2007)
93. **Serap Hayat, J.E.Puskas:** Synthesis of star-branched model polymer structures by living carbocationic polymerization for systematic structure-property relationship studies. Lecture, Student Colloquium, ACS Rubber Division Fall Meeting, October 16-18, Akron, OH (2007)
92. **Sen, M. Y.;** Puskas, J. E. Green polymer chemistry: telechelic poly(ethylene glycol)s via enzymatic catalysis. ACS Rubber Division Fall Meeting, October 16-18, Akron, OH (2007)  
**Best Poster**
- 91.. **Mustafa Y. Sen, Judit, E. Puskas:** Functionalization of Polyisobutylene-Based Biomaterials  
 P. Using Enzymatic Catalysis. TOPCON, September 17-19, Akron, OH (2007) **Best Poster**
90. **L. Dos Santos, J.E.Puskas:** In-situ FTIR Monitoring of the Synthesis of Arborescent Polyisobutylenes. Book of Abstracts, IP07, September 2-7, Banz, Germany, 35 (2007).
89. **I. Sedat Gunes, Kathleen Perevosnik, Allia Lindsay, Marissa Tousley, Sadhan C. Jana, Judit P. E. Puskas:** Reinforcement of Polyisobutylene-based Thermoplastic Elastomeric Biomaterials by Hydrogen Bonding. TOPCON, September 17-19, Akron, OH (2007)
88. J.E.Puskas, R.A.Hoerr: Novel Polymeric Coatings for Drug Release Applications.  
 P OnioNanoSummit, April 24-26, Akron, OH (2007)
87. **Aadithya Krishnan, Sphurti Bhargava, Darrell H. Reneker, Judit E. Puskas:** Electrospinning of  
 P Polyisobutylene-based Block Copolymers. OnioNanoSummit, April 24-26, Akron, OH (2007)
86. **Aadithya Krishnan, Sphurti Bhargava, Darrell H. Reneker, Judit E. Puskas:** Electrospinning of  
 P Polystyrene-Polyisobutylene-Polystyrene Triblock Copolymers. 2007 Annual Meeting of the Society for Biomaterials, April 18-21, Chicago, IL (2007)
85. **L. Dos Santos, E. Foreman, J.E. Puskas:** Analysis of the Architecture of Polyisobutylenes by  
 P Multidetector SEC and Selective Chemical Link Destruction. ACS Spring Meeting, Chicago, IL(2007)
84. **E. Foreman, L.Dos Santos, J.E. Puskas:** Synthesis and SEC Characterization of  
 P Polyisobutylenes from the 4-(1,2-Epoxy-Isopropyl) Styrene Inimer. ACS Spring Meeting, Chicago, IL (2007)
83. M. El Fray, J. E.Puskas, V. Altstädt: The Effect of Chemical Structure and Phase Morphology on The Fatigue Properties of Thermoplastic Elastomer Biomaterials. ACS Fall Meeting, September 10-15, San Francisco, CA (2006)
82. **E. Foreman, J.E. Puskas:** Direct Surface Functionalization of Novel Biomaterials. ACS Fall Meeting, September 10-15, San Francisco, CA (2006)
81. J. E. Puskas, P. Pasetto, F. Peruch, A. Deffieux: Natural Living Carbocationic Polymerization (NLCP) of Isopentenyl Alcohol: Proof of Concept. ACS Fall Meeting, September 10-15, San Francisco, CA (2006)
80. **P. Pasetto, F. Peruch, A. Deffieux, J. E. Puskas:** Cationic polymerization of isopentenyl  
 P pyrophosphate - like monomers. Meeting of the European Polymer Federation, Paris, France, May 15-16 (2006)
79. **P. Pasetto, F. Peruch, A. Deffieux, J. E. Puskas:** Biosynthesis of natural rubber: a carbocationic  
 P polymerization? Meeting of the European Polymer Federation, Paris, France, May 15-16 (2006)
78. **S. Hayat-Soytas, J.E.Puskas, K. Kulbaba:** Real-Time FTIR Monitoring of Isobutylene  
 P Polymerization Initiated by the 1,2-epoxi-2,4,4-trimethyl-pentane / BCl<sub>3</sub> System. ACS Spring Meeting, March, Atlanta, GA (2006)
77. **L.M. Dos Santos, J.E. Puskas, K. Kulbaba:** In Situ FTIR Monitoring of Inimer-Type  
 P Carbocationic Polymerizations of Isobutylene. ACS Spring Meeting, March, Atlanta, GA (2006)
76. J.E.Puskas: Whose Breast it is, Anyways? Gordon Research Conferences on Elastomers,  
 P Networks and Gels, July 17-24, New London, NH (2005)
75. J.E.Puskas: Effect of the Molecular Weight, Size and Architecture on the Glass Transition in

- Polyisobutylenes. Gordon Research Conferences on Elastomers, Networks and Gels, July 17-24, New London, NH (2005)
74. J.E.Puskas, **S.W.P.Chan**, K.B. McAuley: Temperature- And Concentration-Dependent Kinetics In Living Isobutylene Polymerization. ACS Spring Meeting, March, San Diego, CA (2005)
  73. J.E.Puskas: Dendritic (Arborescent) Polyisobutylene-Polystyrene Block Copolymers: DMTA Analysis and Swelling Studies. ACS Fall Meeting, August, Washington D.C., (2004)
  72. J.E.Puskas: Biocompatibility Studies of Novel Dendritic Polyisobutylene-Based Block Copolymers. ACS Fall Meeting, August, Washington D.C., (2004)
  71. J.E. Puskas, B.Kumar, **A. Ebied**, B. Lamperd: Novel Butyl Composites for Less-lethal Ammunition. ACS Rubber Division, 164<sup>th</sup> Technical Meeting, October 14-17, Cleveland, OH (2003)
  70. **A. Ebied**, J.E. Puskas, B. Lamperd, B. Kumar: Novel Rubber Composite Material for Law Enforcement Applications. ACS Rubber Division, 164<sup>th</sup> Technical Meeting, October 14-17, Cleveland, OH (2003) **Best Poster Award**
  69. **H. Nagy**, J.E.Puskas, Y.Chen, A.S.Bassi, R. Stewart, G. Kaszas: Novel Polyisobutylene-Based Surfactants For The Food Industry. IP '03 IUPAC International Symposium on Ionic Polymerizations. June 30-July 4, Boston, MA (2003)
  67. **D. Padavan**, Y. Chen, **M. Tomkins**, J.E.Puskas: Synthesis Of Hybrid Polyisobutylene-Polypeptide Blocks Via Carbocationic Polymerization. IP '03 IUPAC International Symposium on Ionic Polymerizations. June 30-July 4, Boston, MA (2003)
  66. **Y. Kwon**, J.E.Puskas, G.Kaszas: Synthesis And Characterization Of Novel Dendritic (Arborescent) Polyisobutylene-Polystyrene Thermoplastic Elastomers. IP '03 IUPAC International Symposium on Ionic Polymerizations. June 30-July 4, Boston, MA (2003)
  65. Y. Chen, J.E.Puskas: Polyisobutylene-Based Polymers As Prospective Biomaterials. Gordon Research Conferences on Elastomers, Networks and Gels. June 29-July 4, New London, NH (2003)
  64. **S. Shaikh**, J.E.Puskas, G. Kaszas: Kinetic And Reactivity Ratio Studies In Inimer-Type Copolymerizations by Real Time FTIR Spectroscopy. Engineering Foundation Conferences, Polymer Reaction Engineering V, May 18-23, 2003, Quebec City, Canada
  63. **A.Ebied**, **M. Nolte**, B. Lamperd, V. Altstädt, J. E. Puskas. Less-Lethal Ammunition for Peace Keeping. ACS Rubber Division, 162<sup>nd</sup> Technical Meeting, Oct. 8-11, Pittsburgh, PA (2002)
  62. **Y. Dahman**, J.E.Puskas, A. Margaritis, M. Cunningham: Selective Adsorption of Phenols on Thymine-functionalized Polystyrene. 52<sup>nd</sup> Annual Meeting of the Canadian Society of Chemical Engineers, Vancouver, October (2002)
  61. J.E.Puskas, Y. Chen: Polyisobutylene-based Polymers as Prospective Biomaterials. 52<sup>nd</sup> Annual Meeting of the Canadian Society of Chemical Engineers, Vancouver, October (2002)
  60. **M. Chatterton**, M.F.Cunningham, **Y. Dahman**, A. Margaritis: Thymine-Functionalized Polymeric Microspheres. 52<sup>nd</sup> Annual Meeting of the Canadian Society of Chemical Engineers, Vancouver, October (2002)
  59. Y. Chen, J. E. Puskas Polyisobutylene-Based Polymers as Prospective Implants. Meeting of the Canadian Biomaterials Society, Toronto, Canada (2002)
  58. **Y. Dahman**, J. E. Puskas, **Z. Merali**, M. Cunningham, A. Margaritis: Functionalized Polystyrenes for Drug Delivery Applications. Meeting of the Canadian Biomaterials Society, Toronto, Canada (2002)
  57. J. D. Watterson, **D. Beiko**, **J.P. Burton**, **P. Cadieux**, R. R. Harbottle, **K. De Jong**, J.D. Denstedt, G. Reid, J. E. Puskas: Potential Application of Polyisobutylene-Polystyrene to Reduce the Risk of Device-Associated Urinary Tract Infection and Encrustation. Meeting of the Canadian Biomaterials Society, Toronto, Canada (2002)
  56. Y. Chen, J. E. Puskas Polyisobutylene-Based Polymers as Prospective Implants. Proceedings of the Meeting of the Canadian Biomaterials Society, Toronto, Canada (2002)

55. P. Antony, J. E. Puskas and M. Kontopoulou: The Rheological and Mechanical Properties of Blends Based on Polystyrene-Polyisobutylene-Polystyrene Triblock Copolymer and Polystyrene. . Proceedings of MODEST, International Symposium on Polymer Modification, Degradation and Stabilization. Budapest, Hungary (2002)
54. P. Antony, **C. Paulo**, J. E. Puskas, M. El-Fray, **H. Ott**, V. Altstädt, M. Kovar and P.R. Norton: Effect of Hard and Soft Segment Composition on The Morphology and Mechanical Properties of Polystyrene-Polyisobutylene Thermoplastic Elastomeric Block Copolymers. MODEST, International Symposium on Polymer Modification, Degradation and Stabilization. Budapest, Hungary (2002)
53. **A. Dragomirescu**, J.E.Puskas, S. Primak: On-Line Monitoring of the Catalytic Hydrolysis of Methyl Chloride Based on Electrical Measurements. ACS Spring Meeting, April 1-7, Orlando, FL (2002)
52. **K. Kim**, J.E.Puskas, S. Rohani: Kinetic Investigation of the Living Cationic Polymerization of Isobutylene with Real-Time Monitoring Using a Mid-IR Fiber Optic Probe. ACS Spring Meeting, April 1-7, Orlando, FL (2002)
51. **S. Shaikh**, H.Peng, J.E. Puskas: A Comprehensive Kinetic Model for the Living Carbocationic Polymerization of Isobutylene. ACS Spring Meeting, April 1-7, Orlando, FL (2002)
50. **S. Shaikh**, S. Chattopadhyay, J.E. Puskas: A New Approach to Measure Copolymerization Reactivity Ratios by Real Time FTIR Spectroscopy. ACS Spring Meeting, April 1-7, Orlando, FL (2002)
49. **Y. Dahman**, J. E. Puskas, A. Margaritis **Z. Merali** and M. Cunningham: Synthesis and Characterization of Functionalized Polystyrenes. ACS Spring Meeting, April 1-7, Orlando, FL (2002)
48. **Y. Kwon**, P. Antony, **C. Paulo**, J.E.Puskas: Arborescent Polyisobutylene-Polystyrene Block Copolymers - a New Class of Thermoplastic Elastomers. ACS Spring Meeting, April 1-7, Orlando, FL (2002)
47. P. Antony, **C. Paulo**, J. E. Puskas, **H. Ott**, M. Fray, V. Altstädt: Effect of Hard and Soft Segment Composition on the Morphology and Mechanical Properties of Polystyrene-Polyisobutylene Thermoplastic Elastomeric Block Copolymers. Modest, June 30-July 4, Budapest, Hungary (2002)
46. P. Antony, M. Kontopoulou, J. E. Puskas: The Rheological and Mechanical Properties of Blends Based on Polystyrene-Polyisobutylene-Polystyrene Triblock Copolymer and Polystyrene. Modest, June 30-July 4, Budapest, Hungary (2002)
45. **Q.Liu**, K.McAuley, M.Cunningham, J.E.Puskas: Mathematical Modeling and Parameter Estimation in Living Isobutylene Polymerization. 7<sup>th</sup> Pacific Polymer Conference, December 3-7, Oaxaca, Mexico (2001)
44. J.E.Puskas, **W. Luo**: Investigation of the Kinetics and Mechanism of Carbocationic Styrene Polymerization. 7<sup>th</sup> Pacific Polymer Conference, December 3-7, Oaxaca, Mexico (2001)
43. **S. Shaikh**, J.E.Puskas: A New Method to Measure the Copolymer Reactivity Ratios by Real-time FTIR Spectroscopy. ACS Rubber Division, 160<sup>th</sup> Fall Technical Meeting, October 16-19, Cleveland, OH (2001)
42. Y.Kwon, P.Antony, J.E.Puskas: Arborescent Polyisobutylene-Polystyrene Block Copolymers – a New Class of Thermoplastic Elastomers. ACS Rubber Division, 160<sup>th</sup> Fall Technical Meeting, October 16-19, Cleveland, OH (2001)
41. **N.L. Yue**, J.E.Puskas: Epoxide-based Initiators for Isobutylene Polymerization. ACS Rubber Division, 160<sup>th</sup> Fall Technical Meeting, October 16-19, Cleveland, OH (2001)
40. J.E.Puskas, M. Krombholz: Real-Time Fiber Optic FTIR Monitoring of Sequential Living Isobutylene and Styrene Block Copolymerization. ACS Spring Meeting, San Diego, CA, USA (2001)
39. **C. Paulo**, J.E.Puskas: Real-Time Fiber Optic Mid-IR Monitoring of Inimer-type Living

- Isobutylene Polymerizations. ACS Spring Meeting, San Diego, CA, USA (2001)
38. J. D. Watterson, **P. Cadieux**, J.E. Puskas, R. Harbottle, G. Reid, J. D. Denstedt: Coating of Silicone and a Novel Polymer with Lactobacillus Fermentum Rc-14 Collagen Binding Protein Reduces Bacterial Adhesion. AUA Meeting, Anaheim, CA, June (2001)
  37. **N. Del Vecchio**, S. Barghi, and J. E. Puskas: New Method for On-line Monitoring of Adsorption Column Saturation and Regeneration. . 50<sup>th</sup> Annual Meeting of the Canadian Society of Chemical Engineers, Montreal, October (2000).
  36. J.E.Puskas, **C. Paulo**: Synthesis and Characterization of Hyperbranched Polyisobutylenes. 50<sup>th</sup> Annual Meeting of the Canadian Society of Chemical Engineers, Montreal, October (2000).
  35. D.M. Shinozaki, **S. St. Lawrence**, J. E. Puskas, M. Gerchcovich, U. Myler: Micro- Mechanical Testing of Polyisobutylene-Polystyrene Block-type Thermoplastic Elastomers. ACS Rubber Division, 158<sup>th</sup> Fall Technical Meeting, October, Cincinnati, OH (2000)
  34. **W.Luo**, J.E.Puskas: Investigation of the Kinetics of Living Carbocationic Styrene Polymerization for Polyisobutylene-Polystyrene Block Copolymer Synthesis. ACS Rubber Division, 158<sup>th</sup> Fall Technical Meeting, October, Cincinnati, OH (2000)
  33. **Y.Kwon**, J.E.Puskas: Effects of the Reaction Conditions on the Synthesis of Multiarm-Star Polyisobutylene-Polystyrene Block Copolymers. ACS Rubber Division, 158<sup>th</sup> Fall Technical Meeting, October, Cincinnati, OH (2000)
  32. **A. Dragomirescu**, **C. Paulo**, J.E.Puskas, V. Altstädt: Synthesis and Characterization of Hyperbranched Polyisobutylenes. ACS Rubber Division, 158<sup>th</sup> Fall Technical Meeting, October, Cincinnati, OH (2000)
  31. **M. Hofmann**, J.E.Puskas, K.Weiss: Real-time Mid-IR Monitoring of Metathesis Polymerizations. ACS Fall Meeting, August, Washington D.C. (2000)
  30. J. E. Puskas, A. J. Michel, **L. B. Brister**: Real-time Monitoring of Polymerization Processes using a Mid-IR Fiber Optic Probe. United Engineering Foundation Conferences Polymer Reaction Engineering IV, Palm Coast, FL, USA (2000)
  29. **J. Liu**, K. B. McAuley, M. F. Cunningham J. E. Puskas, "Modelling Reaction Kinetics and Molecular Weights in the Cationic Polymerization of Isobutylene", 49<sup>th</sup> Annual Meeting of the Canadian Society of Chemical Engineers, Saskatoon, October (1999).
  28. J. E. Puskas, S. Barghi, **N. Del Vecchio** : Method For Monitoring Adsorbtion Column Saturation. AIChE Annual Meeting, November, Dallas, TX (1999)
  27. J.E.Puskas, A.G.Michel and **L.B.Brister**: Real-time Monitoring of Polymerization Processes using a Mid-IR Fiber Optic Probe. ACS Rubber Division, Fall Meeting, Orlando, FL (1999)
  26. **S. Angepat**, **C.Paulo**, J.E.Puskas: Mid-IR Monitoring of Cationic Styrene Polymerizations. ACS Rubber Division, Fall Meeting, Orlando, FL (1999)
  25. **C. Paulo**, **S. Angepat**, J.E.Puskas: Investigation of the Effect of Reaction Conditions on the Kinetics of Isobutylene Polymerisation by Mid-IR Monitoring. ACS Rubber Division Fall Meeting, Dallas, TX (1999)
  24. J.E.Puskas, P.M.Wetmore and V. Krukoni: Supercritical Fluid Fractionation of Block Copolymers. ACS Fall Meeting, New Orleans, LA, USA (1999)
  23. **L.B. Brister**, J.E. Puskas and **E. Tzaras**: Star-branched PIB/poly(p-*t*-bu Styrene) Block Copolymers from a Novel Epoxide Initiator. ACS Spring Meeting, Anaheim, CA, USA (1999)
  22. J.E.Puskas, **W.E.Pattern**, P.M.Wetmore and A.Krukoni: Multiarm-Star Polyisobutylene-Polystyrene Thermoplastic Elastomers from a Novel Multifunctional Initiator. ACS Spring Meeting, Anaheim, CA, USA (1999)
  21. A.Michel, **L.B. Brister** and J.E. Puskas: Real-Time Mid-IR monitoring of Epoxi-initiated Living Isobutylene Polymerizations. ACS Spring Meeting, Anaheim, CA, USA (1999)
  20. J.E.Puskas, **W.E.Pattern**, **M.G. Lanzendörfer**, **D.Jamieson** and **L.Oraha Al-Rais**: New Initiators for the Living Carbocationic Polymerization of Isobutylene. ACS Spring Meeting,

- Dallas, TX, USA (1998)
19. A. Michel, L. **B.Brister** and J.E.Puskas: Novel Epoxide Initiators for Carbocationic Polymerizations. NATO ASI "Ionic Polymerizations and Related Processes", London, Ontario, Canada (1998)
  18. **C. Neagu**, A. L. Natansohn and J. E. Puskas: Domain Sizes and Interface Thickness in Heterogeneous Block Copolymer Systems by Solid-State NMR 48<sup>th</sup> Annual Meeting of the Canadian Society of Chemical Engineers, London, Ontario, Canada (1998)
  17. J.E.Puskas and **W.E. Pattern**: Synthesis and Characterization of Novel Six-arm Star Thermoplastic Elastomers. 48<sup>th</sup> Annual Meeting of the Canadian Society of Chemical Engineers, London, Ontario, Canada (1998)
  16. J.E.Puskas: Reaction Kinetics of Polymerization Processes Based on Mechanistic Models. 48<sup>th</sup> Annual Meeting of the Canadian Society of Chemical Engineers, London, Ontario, Canada (1998)
  15. J.E.Puskas and S.Barghi: New Method for the Characterization of Heterogeneous Catalysts. 48<sup>th</sup> Annual Meeting of the Canadian Society of Chemical Engineers, London, Ontario, Canada (1998)
  14. J.E.Puskas: Macromolecular Engineering by Living Polymerization. United Engineering Foundation Conferences, Polymer Reaction Engineering III, Palm Coast, FL, USA (1997)
  13. J.E.Puskas: On-line Monitoring of the Unsaturation in the Butyl Rubber Manufacturing Process Engineering Foundation Conferences, Polymer Reaction Engineering III, Palm Coast, FL, USA (1997)
  12. **M.Lanzendörfer**, **W.Pattern**, **L. Oraha** and J.E.Puskas: Mid Infra-Red Monitoring of Isobutylene and Styrene Polymerizations. 29<sup>th</sup> ACS Regional Meeting, Midland, MI, USA (1997)
  11. **M.G. Lanzendörfer**, **W.E. Pattern** and J.E.Puskas: Mid Infra-Red Monitoring of Isobutylene and Styrene Polymerizations 153rd ACS Rubber Division Meeting, Cleveland, OH (1997)
  10. J.E.Puskas: Star-branched and Hyperbranched Polyisobutylenes. Gordon Research Conference on Elastomers, Networks and Gels, New London, NH, USA (1997)
  9. J.E.Puskas: Kinetics of the Living Polymerization of Isobutylene. Gordon Research Conference on Elastomers, Networks and Gels, New London, NH, USA (1997)
  8. J.E. Puskas, M.Verhelst, P.Collart and J.B.Schmidt: Prediction of the Unsaturation of Butyl Rubbers On-line During the Manufacturing Process, 146th ACS Rubber Division Meeting, Pittsburg, PA (1994)
  7. J.E.Puskas and **R.Hutchinson**: Application of the Universal Calibration Principle for SEC Analysis of Butyl Rubbers, Pittcon (1993)
  6. J.E.Puskas and **R.Hutchinson**: GPC Calibration for the Molecular Weight Measurement of Butyl Rubber, 144<sup>th</sup> ACS Rubber Division Meeting, Orlando, FL (1993)
  5. J.E.Puskas: Kinetic Modelling in Living Polymerizations; Reaction Mechanism and the Effect of Chain Transfer Agents on the Degree of Polymerization in Batch and Continuous Stirred Tank Reactors, 42nd Canadian Chemical Engineering Conference, Toronto, Ont. Canada (1992)
  4. J.E.Puskas, G.Kaszas, **C.C.Chen** and J.P.Kennedy: New PIB-based Flexible Coatings, Gordon Research Conference on Polymers, New London NH (1989)
  3. G.Kaszas, J.E.Puskas and J.P.Kennedy: New Multiblock Copolymers with Polyisobutylene Soft and Cyclized Polyisoprene Hard Segments, 134th ACS Rubber Division Meeting, Cincinnati, OH (1988)
  2. J.E.Puskas, G.Kaszas and J.P.Kennedy: Photoresponsive Cyclized Polyisoprene and Isoprene-Isobutylene Copolymers, ACS Spring Meeting, New Orleans, LA (1987)
  1. G.Kaszas, J.Puskas and J.P.Kennedy: Living Isobutylene Polymerizations. 132<sup>nd</sup> ACS Rubber Division Meeting, Cleveland, OH (1987)

## 5.9. Consulting work undertaken

2008	LANXESS Inc., Biomedical Research Associates, Nanocopoeia Inc., Goodyear Tire&Rubber Co.
2007	LANXESS Inc., Biomedical Research Associates, Nanocopoeia Inc., RohMax Inc., Goodyear Tire&Rubber Co.
2006	LANXESS Inc., Biomedical Research Associates, Nanocopoeia Inc., RohMax Inc., BASF AG, Goodyear Tire&Rubber Co.
2005	LANXESS Inc., Kaneka Co., BASF AG.
2004	Bayer Inc., Pine Tree Law Enforcement Products Ltd.; Fabrene Inc., Kaneka Co., Japan
2003	Bayer Inc., Pine Tree Law Enforcement Products Ltd.; Fabrene Inc., Kaneka Co., Japan
2002	Bayer Inc., Pine Tree Law Enforcement Products Ltd.; Fabrene Inc., Ohio Polymer Enterprise Development, Inc., Shell Global Solutions Inc., Harlak&Assoc. Lawfirm, expert witness.
2001	Bayer Inc.; BASF AG.; 3M; Xerox Research Canada; US Naval Research Institute; NRC; Pine Tree Law Enforcement Research; Syntheon Inc. USA
2000	Bayer Inc.; NRC; 3M ; US Naval Research Institute
1999	Bayer Inc.; BASF AG.; Remspec Inc.; Xerox Research Canada; Advanced Elastomer Systems
1998	Bayer Inc.; Imperial Oil Research; Remspec Inc.; Eastman Kodak Inc.
1997	Bayer Inc.; Boundary Layer Wind Tunnel; Goodyear Tire & Rubber Co. Nova Research & Technology Co.
1996	Bayer Inc.; Xerox Research Canada

## Invited lectures in companies

2008	Novel Processes for the Synthesis of Polyisoprene and Poly(isobutylene-co-isoprene). The Goodyear Tire&Rubber Co. Feb.15. Akron OH
2007	Novel Polymers for Biomedical Applications. June 27-28, Sarnia, Ont. Canada
2006	The effect of butadiene-1,2 on the living anionic polymerization of butadiene-1,3 in hydrocarbon solvents. The Goodyear Tire&Rubber Co. Aug. 31. Akron OH

## 5.10. Reviews

### *Journals*

Macromolecules

Journal of Polymer Science

Journal of Macromolecular Science

Biomacromolecules

Polymer Reaction Engineering

Canadian Journal of Chemical Engineering

Polymer Science&Engineering

European Polymer Journal

e-Polymer

Polymer

ACS Rubber Division Best Paper Committee member

Editorial Advisory Board Member, European Polymer Journal

*Grant Reviews*

2008 NSF Panel (6 proposals);  
2007 4 NSF Grant Reviews; RFI (Ireland) Proposal Review; NSERC (Canada) Review  
2006 2 ACS PRF Grant Review, 3 NSF Grant Reviews,  
2005 NSF NIRT Panel Review, NSF DMR Grant Review.  
2004 NSF Grant Review.  
2002 MMO; Establishment Grant Review, Alberta Ingenuity Fund; NSERC ACUIG (Advisory Committee University Industry Grants); NSERC Site Visit Committee (U. Toronto); 2 NSERC Strategic Grant Reviews  
2001 FWF Grant Review, Austria; MMO; NSERC ACUIG (Advisory Committee University Industry Grants)  
2000 Premier's Award, Ontario Review, Canada  
MMO Grant Review. Canada  
NSERC ACUIG (Advisory Committee University Industry Grants)  
1999 Premier's Award, Ontario Review, Canada  
National Science Foundation Review, U.S.A.  
MMO Grant Review. Canada  
1998 MMO Grant Review, Canada  
1995 ICST Grant Review, Canada  
1993, 1994 ACS Petroleum Research Fund, USA

**5.11. Symposia Chaired and Organized**

2008 Symposium Organizer TPE2008, ACS Rubber Division, May 1-2, Dearborn, MI, USA  
2007 IUPAC WP. IV. Annual meeting, May 9-11, Budapest, HU  
Chair-Elect, Gordon Research Conferences on Elastomers, Networks and Gels (Chair 2009), USA  
2006 Symposium Organizer TPE2006, ACS Rubber Division, May 11-12, Akron, Ohio, USA  
2005 Symposium Organizer "Frontiers in Living Polymerization" Pacific Polymer Conference, December 10-14, Maui, Hawaii, USA  
2004 Session Chair, 40<sup>th</sup> IUPAC International Symposium on Macromolecules. July 2-9, Paris, France.  
2003 Member of the Organizing Committee, IP '03 IUPAC International Symposium on Ionic Polymerizations. June 30-July 4, Boston, MA (2003)  
Session Chair, Europolymer Congress, June 23-27, 2003, Royal Institute of Technology, Stockholm, Sweden.  
2002 Session Chair, Hearin Foundation Conference, April, University of Southern Mississippi, Hattiesburg, USA  
Session Chair, MODEST, International Symposium on Polymer Modification, Degradation and Stabilization. Budapest, Hungary  
2001 Session Chair, Pacific Polymer Conference, December, Oxaca, Mexico  
Symposium Co-organizer, "In-situ Spectroscopy of Monomer and Polymer Synthesis"; Session co-chair; ACS Spring Meeting, San Diego, CA, USA  
2000 Poster Session Co-chair, United Engineering Foundation Conferences Polymer Reaction Engineering IV, March, Palm Coast, FL

- World Polymer Congress (IUPAC Macro 2000), Session Chair, Warsaw, Poland  
 Session Chair, Pacificchem, Honolulu, HA
- 1999 Gordon Research Conference on Elastomers, Networks and Gels, Session Chair,  
 New London NH, USA
- 1998 Director, NATO Advanced Study Institute (ASI) "Ionic Polymerizations and  
 Related Processes", London, Ontario, Canada  
 48<sup>th</sup> Canadian Society of Chemical Engineers Conference, Session Co-chair,  
 London, Ontario, Canada
- 1997 47<sup>th</sup> Canadian Society of Chemical Engineers Conference, Session Cochair
- 1995 Women's Contribution to Chemistry and Chemical Engineering, ACS Symposium  
 Chair, ACS Spring Meeting, Anaheim, CA, USA
- 1994 MacroAkron 35<sup>th</sup> IUPAC Symposium on Macromolecules, Session Chair, Akron  
 OH, US
- 1993 Gordon Research Conference on Elastomers, Networks and Gels, Session Chair,  
 Newport, RI, USA

### 5.12. Editor - Books and Conference Proceedings

2. J. E. Puskas, T. Long, R.F. Storey: Proceedings of the Symposium titled "*In situ* Spectroscopy in Monomer and Polymer Synthesis", Kluwer Academic/Plenum Publishers, N.Y. (2003)
1. J.E. Puskas: Proceedings of the NATO ASI "Ionic Polymerizations and Related Processes", NATO Science Series 359, Kluwer Academic Publishers (1999)

- 2002- 2008 Editor, European Polymer Journal
- 2008- Editor, WIRE (Wiley Interdisciplinary Reviews) Nanomedicine and Nanobiotechnology

### 5. 13. Memberships and Involvement in Professional Organizations

- 2008- Society for Biomaterials
- 1993-present Association of Professional Engineers Ontario
- 1990-present American Chemical Society  
 Rubber Division  
 Polymeric Materials Science and Engineering Division
- 1991-1993 American Institute of Chemical Engineers
- 1991-1993 Association of Professional Chemists of Ontario