THE KENNETH RUSSELL ENDOWED LECTURE

Kenneth Russell came to Queen's in 1954. He had research experience in polymer chemistry at Cambridge and Princeton, in thermodynamics of rocket fuels at Penn State and in kinetics of atom recombination at Manchester. He was known particularly for his polymer research and first year and polymer lectures (dating back to 1956). He retired officially in 1990.

His interest in polymer chemistry arose through wartime work on butyl rubber. This led to a Ph.D. thesis on isobutene polymerization by Friedel Crafts catalysts, including kinetic studies of the effects of various co-initiators. His research at Queen's led to an understanding of the dual role of a wide range of co-initiators.

Free radical studies at Princeton led to determination of transfer constants for transfer agents and retarders (still quoted in the Polymer Handbook).

His other main research areas, inspired in large measure by parallel work at Du Pont, consisted of structural studies of polyethylene and grafting of vinyl monomers to polyethylene. These carried on for 12 years into his retirement and profited from cooperation with many members of staff. A main factor in the incorporation of this lecture series was Dr. Russell's work with Drs. Whitney and Parent.

SELECTED RECENT PUBLICATIONS

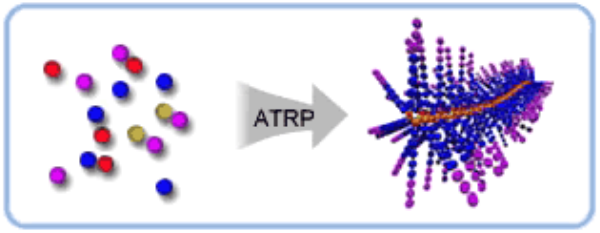
- Chin Ming Hui, Joanna Pietrasik, Michael Schmitt, Clare Mahoney, Jihoon Choi, Michael R. Bockstaller and Krzysztof Matyjaszewski, Chem. Mat., 26, 745−762 (2014)
- Matthew J. Hamer, Balaji V. S. Iyer, Victor V. Yashin, Tomasz Kowalewski, Krzysztof Matyjaszewski and Anna C. Balazs, Soft Matter, 10, 1374-1383 (2014)
- Brian J. Adzima, Steve C. Taylor, Hongkun He, Krzysztof Matyjaszewski, David Luebke, and Hunaid Nulwala, , J. Polym. Sci., Polym Chem. Ed., 52, 417-423 (2014)
- Saadyah E. Averick, Sourav K. Dey, Debasish Grahacharya, Krzysztof Matyjaszewski, and Subha R. Das, Angew. Chem, 53, 2739–2744 (2014)
- Kristin Schröder, Kevin J. T. Noonan, Krzysztof Matyjaszewski, Robert T. Mathers, Green Chemistry, 16, 1673-1686 (2014)
- Dominik Konkolewicz, Pawel Krys, Joana R. Góis, Patrícia V. Mendonça, Mingjiang Zhong, Yu Wang, Armando Gennaro, Abdirisak A. Isse, Marco Fantin, and Krzysztof Matyjaszewski, Macromolecules, 47, 560–570 (2014)
- Hongkun He, Brian Adzima, Mingjiang Zhong, Saadyah Averick, Richard Koepsel, Hironobu Murata, Alan Russell, David Luebke, Atsushi Takahara, Hunaid Nulwala, and Krzysztof Matyjaszewski, Polym. Chem.,, 5 , 2824 – 2835 (2014)
- Dingcai Wu, Zhenghui Li, Mingjiang Zhong, Tomasz Kowalewski, Krzysztof Matyjaszewski, Angew. Chem., 53, 3957-3960 (2014)

Queen's Chemistry

Department of Chemistry
Queen's University

is honoured to host the
2016 Russell Lecturer:

Dr. Krzysztof Matyjaszewski
Department of Chemistry
Carnegie Mellon University



"Macromolecular Engineering by Taming Free Radicals"

Friday, April 15, 2016
11:30 AM
Room 117, Chernoff Hall

DR. KRZYSZTOF MATYJASZEWSKI

Krzysztof Matyjaszewski
J.C. Warner University
Professor of Natural Sciences
Department of Chemistry
Carnegie Mellon University
Pittsburgh, PA

Prof. Matyjaszewski is an internationally recognized polymer chemist who is highly regarded for his vision, his leadership in education and his many collaborative research efforts that have yielded significant innovations in polymer chemistry. He is best known for the discovery of atom radical transfer polymerization (ATRP), a novel method of polymer synthesis that has revolutionized the way macromolecules are made.

Prof. Matyjaszewski was born in Konstantynow, Poland in 1950. He received his doctorate from the Polish Academy of Sciences in 1976 and completed a postdoctoral fellowship at the University of Florida in 1977. From 1978 to 1984, he was a research associate of the Polish Academy of Sciences. From 1984 to 1985, he held appointments at the University of Paris, first as a research associate and then as a visiting professor. In 1985, he joined Carnegie Mellon, where he founded and currently directs the Center for Macromolecular Engineering. The Center for Macromolecular Engineering is funded both by an active consortium and government agencies, including the National Science Foundation (http://www.cmu.edu/maty/). From 1994 to 1998, Prof. Matyjaszewski served as head of the Department of Chemistry. In 1998, he was appointed the J.C. Warner Professor of Natural Sciences. In 2004 he was named a University Professor, the highest distinction faculty can achieve at Carnegie Mellon.

Prof. Matyjaszewski is a co-inventor on 52 issued U.S. patented technologies, holds 147 international patents and has 36 U.S. patent applications pending approval. He so far has 17 licensees signed for his ATRP technology.

One of the leading educators in the field of polymer chemistry, Matyjaszewski has 15 current doctoral students and 5 postdoctoral fellows. He has mentored more than 200 undergraduate, graduate and postdoctoral students since joining Carnegie Mellon. He has authored 19 books, 90 book chapters and more than 900 peer-reviewed scientific papers. His work has been cited in the scientific literature more than 78,000 times (ISI Web of Science), making him one of the 10 most cited chemists in the world.

SELECTED HONOURS & AWARDS

- 2014 - National Institute of Materials Science (Japan) Award
- 2014 - Fellow of National Academy of Inventors
- 2013 - The Inaugural AkzoNobel North American Science Award (ACS)
- 2012 - Société Chimique de France Prize
- 2012 - Dannie-Heineman Prize from the Goettingen Academy of Sciences
- 2011 - Wolf Prize in Chemistry
- 2011 - Japanese Society for Polymer Science Award
- 2010 - Fellow of the American Chemical Society
- 2009 - Presidential Green Chemistry Challenge Award
- 2012 - Marie Sklodowska-Curie Medal from Polish Chemical Society
- 2011 - Herman F. Mark Award (ACS)
- 2011 - Applied Polymer Science Award (ACS)
- 2007 - Herman F. Mark Senior Scholar Award (ACS)
- 2006 - Member of the U.S. National Academy of Engineering
- 2005 - Foreign member of the Polish Academy of Science
- 2004 - Annual Prize of the Foundation of Polish Science (Polish "Nobel Prize")
- 2004 - Cooperative Research Award in Polymer Science & Engineering (ACS)