

## THE KENNETH RUSSELL ENDOWED LECTURE

Kenneth Russell joined Queen's University in 1954, bringing extensive research experience in polymer chemistry from Cambridge and Princeton, thermodynamics of rocket fuels from Penn State, and kinetics of atom recombination from Manchester. He became well known for his pioneering work in polymer chemistry and engaging first-year and polymer lectures, which he delivered from 1956 until his official retirement in 1990.

His interest in polymer chemistry stemmed from wartime research on butyl rubber, leading to a Ph.D. thesis on isobutene polymerization using Friedel-Crafts catalysts. His kinetic studies on the effects of various co-initiators provided foundational insights into polymerization mechanisms. At Queen's, his research further elucidated the dual role of a wide range of co-initiators, advancing the understanding of their influence on polymerization processes.

While at Princeton, his work on free radical kinetics led to the determination of transfer constants for transfer agents and retarders, data that remains a reference in the *Polymer Handbook*. Additionally, inspired by concurrent developments at DuPont, he conducted structural studies of polyethylene and investigated the grafting of vinyl monomers onto polyethylene. These projects continued for 12 years after his retirement, benefiting from close collaborations with colleagues at Queen's. Dr. Russell's collaboration with Drs. Whitney and Parent played a key role in developing this lecture series and further strengthened Queen's standing in polymer research.

## PREVIOUS KENNETH RUSSELL LECTURERS

2024 • *R. Buonsanti*

2023 • *C. Williams*

2022 • *K. Wooley*

2021 • *L. Jiang*

2019 • *S. Yamaguchi*

2018 • *M. Winnik*

2018 • *T. Lodge*

2017 • *S. Holdcroft*

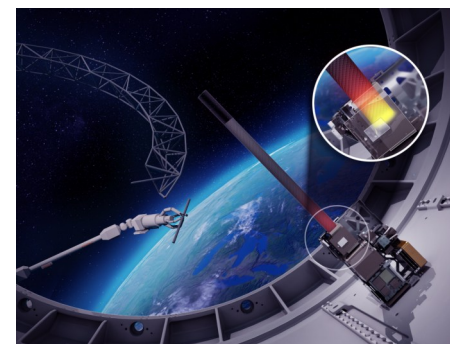
2016 • *K. Matyjaszewski*



**Department of Chemistry  
Queen's University**

is honoured to host the  
2025 Kenneth Russell  
Lecturer:

Jeffrey S. Moore  
University of Illinois Urbana-  
Champaign



"Space Manufacturing:  
Materials Chemistry for  
Fabrication of High-  
Performance Composites"

Friday, March 21, 2025  
11:30 AM  
Virtual via Zoom

## DR. JEFFREY S. MOORE



Jeffrey S. Moore  
Stanley O. Ikenberry Research Professor, and Research  
Professor of Chemistry  
Howard Hughes Medical Institute Professor  
University of Illinois Urbana-Champaign  
jsmoore@illinois.edu

**Jeffrey Moore** received his B.S. in chemistry (1984) and Ph.D. in materials science and engineering with Samuel Stupp (1989), both from the University of Illinois. He then went to Caltech as a National Science Foundation Postdoctoral Fellow working with Robert Grubbs. In 1990, he joined the faculty at the University of Michigan in Ann Arbor and in 1993 returned to the University of Illinois, where he was Professor of Chemistry, as well as a Professor of Materials Science & Engineering until 2022 and was also selected as the Stanley O. Ikenberry Endowed Chair in 2018. Jeff currently holds the titles of Stanley O. Ikenberry Research Professor of Chemistry, Stanley O. Ikenberry Endowed Chair Emeritus and Professor Emeritus of Chemistry. Jeff is a member of the National Academy of Sciences and a fellow of the American Academy of Arts & Sciences, the American Association for the Advancement of Science and the American Chemical Society (ACS); he has received the Campus Award for Excellence in Undergraduate Teaching and has been recognized as a "Faculty Ranked Excellent by their Students." For 14 years he served as an associate editor for the Journal of American Chemical Society. In 2014, he was selected as a Howard Hughes Medical Institute Professor and in 2016 was chosen as the recipient for the ACS Edward Leete Award in Organic Chemistry. He received the Royal Society of Chemistry's Materials Chemistry Division 2018 Stephanie L. Kwolek Award and was part of a team that was honored with the Secretary of Energy Honor Award, Achievement Award the same year. Jeff was also awarded the 2019 National Award in Polymer Chemistry by the American Chemical Society. He has published over 400 articles covering topics from technology in the classroom to self-healing polymers, mechanoresponsive materials and shape-persistent macrocycles. He served as the Director of the Beckman Institute for Advanced Science and Technology at the University of Illinois from 2017-2022. In this role, he received the 2021 Executive Officer Distinguished Leadership Award from the UIUC Campus.

## SELECTED HONOURS & AWARDS

- UIUC Campus Award for Excellence in Undergraduate Teaching
- UIUC Innovation Transfer Award, Office of Technology Management
- UIUC Campus Executive Officer Distinguished Leadership Award
- Member of the National Academy of Sciences
- Fellow of the American Academy of Arts & Sciences
- ACS-DOC Edward Leete Award
- RSC Stephanie L. Kwolek Award
- ACS National Award in Polymer Chemistry