

BUTLER LECTURESHIP IN POLYMER CHEMISTRY - SPRING 2016

“Catalysis: The Enabling Science for Polymer Chemistry”

PROFESSOR ROBERT M. WAYMOUTH

Stanford

Department of Chemistry



DR. ROBERT M. WAYMOUTH

Dr. Robert M. Waymouth is the Robert Eckles Swain Professor of Chemistry representing Stanford University.



SCHEDULE OF LECTURES

Monday, Feb. 15, 2016

12:00 PM
LEI 309

Organocatalytic Synthesis of Biodegradable and Biocompatible Polymers

The high functional group tolerance of organic catalysts allows for the generation of highly functionalized biocompatible and biodegradable oligomers. This lecture will describe the synthesis and properties of functional polymers and some of their biological applications.

Wednesday, Feb. 17, 2016

12:00 PM
LEI 309

Catalytic Polymerization: The Legacy of Ziegler, Natta, Hogan, and Banks

Pioneering advances in olefin polymerization catalysis in the 1950's spawned a vast industry. This lecture will describe the relationship between the science, technology, and properties of olefin polymers and the challenges and opportunities for new catalyst developments.

Thursday, Feb. 18, 2016

4:00 PM
LEI 207

Dynamic Catalysis: A Strategy for Control of Polymer Sequence

This lecture will describe the concept of fluxional and dynamic catalyst systems which can change their behavior while enchainning monomers, providing kinetic strategies to manipulate polymer stereochemistry and composition.

Tuesday, Feb. 23, 2016

1:00 PM
LEI 309

Kinetic Strategies to Control Sequence in Polymers

This lecture will describe catalyst systems designed to adopt multiple kinetic states as a strategy for controlling the sequence of monomer enchainment.

Thursday, Feb. 25, 2016

4:00 PM
LEI 207

Quo Vadis? And Now for Something Completely Different.

This lecture will describe ideas and projects that didn't work, problems that lie beyond our current knowledge / capabilities, and unrealized opportunities. Failure is a good thing: If your hit rate is too high, you are not reaching high enough.