University of Minnesota
Driven to Discover℠

Department of Chemistry

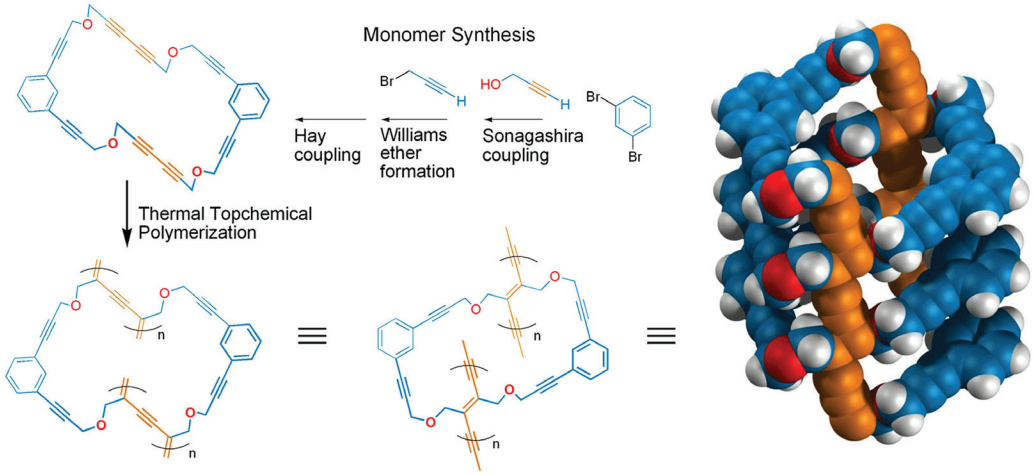
Etter Memorial Lecture

9:45 a.m. Thursday, April 19, 2012 • 331 Smith Hall

Single-Crystal-to-Single-Crystal Topochemical Polymerizations by Design

Abstract

One significant demonstration of solid-state organic chemistry is the ability to design a molecular solid for form and function. This has been the central goal of our research, which is focused upon single-crystal-to- single-crystal topochemical polymerizations. Over the years we have combined molecular and crystal design, organic synthesis, x-ray crystallography and a little luck to prepare several new types of polymeric systems. This presentation will combine a quick review of our past work along with a look at our current work on tubular addition polymers.



Margaret C. Etter Memorial Lecture in Materials Chemistry

Margaret "Peggy" Cairns Etter was born on September 12, 1943. She died on June 10, 1992, from cancer. In 1974, she received her doctorate in chemistry from the University of Minnesota under the direction of Jack Gougoutas. She taught organic chemistry at Augsburg College in 1975-76, and worked at the 3M Company from 1976 to 1983. She returned to the University of Minnesota as a postdoctoral fellow with Robert Bryant in 1984 and, within a year, had secured an independent academic appointment. Peggy rose rapidly through the ranks and in 1990 was promoted to full professor. Peggy's outstanding characteristics as a scientist were her infectious enthusiasm, uncompromising scientific standards, and creativity. Her research group made major contributions in the applications of solid-state nuclear magnetic resonance spectroscopy, the design and properties of organic non-linear optical materials, and most significantly, in the understanding and utilization of hydrogen-bonding interactions in crystals. This was reflected in nearly 80 research papers and in several landmark review articles in prestigious journals. Outside recognition in the form of fellowships from the Sloan and Bush Foundations and an Iota Sigma Pi Award for Excellence in Chemistry represent incomplete reflections of the impact of this work. One of her extramural "side projects" was to found a company called "Rochelle Crystal Corporation," for which Peggy was named St. Paul Businessperson of the Year in 1986.

Professor

Joseph Lauher

Department of Chemistry
Stony Brook University

Research interests involve structural chemistry such as inorganic or organic, molecular or solid state, experimental or theoretical, and employing techniques of synthesis, computer design and modeling, and X-ray crystallography in an integrated fashion. Crystallographic studies of novel inorganic and organometallic systems are also an important part of his research program.

Website: http://www.chem.stonybrook.edu/faculty/lauher.shtml

Host: Professor Kenneth Leopold

Refreshments will be served prior to the seminar.