UNIVERSITY OF GEORGIA
College of Engineering

2018-2019 Lecture Series

Marc Hillmyer, Ph.D.

McKnight Presidential Endowed Chair
Director, Center for Sustainable Polymers

University of Minnesota
Department of Chemistry

FRIDAY
March 1, 2019

12:30 P.M.

COVERDELL CENTER AUDITORIUM (Room 175)

How sustainable polymers can shape the future of plastics

ABSTRACT

Traditional polymers are typically made from petroleum feedstocks and usually end up in landfills. In the case of packaging, serviceware, and other short-term-use plastic products such as plastic bags, the time that these materials are actively being used is far smaller than the time needed to generate the feedstocks and their degradation time. Unfortunately, many of these plastics products end up in the environment (i.e., across our landscapes or in our oceans) and can wreak ecological havoc. The ideal sustainable polymer is produced from an annually renewable resource, performs well in the intended application and has sensible end-of-life solutions through, for example, composting, incineration, and/or recycling. In this presentation I will described contemporary approaches to achieve this vision of sustainable plastics that minimize environmental impact and also have economically reasonable paths for technology commercialization. I will emphasize work that has been carried out at the National Science Foundation Center for Sustainable Polymers headquartered at the University of Minnesota.

BIOGRAPHY

Marc Hillmyer received his B.S. in Chemistry from the University of Florida in 1989 and his Ph.D. in Chemistry from the California Institute of Technology in 1994. After completing a postdoctoral research position in the University of Minnesota's Department of Chemical Engineering and Materials Science he joined the Chemistry faculty at Minnesota in 1997. He is currently the McKnight Presidential Endowed Chair in Chemistry and leads a research group focused on the synthesis and self-assembly of multifunctional polymers. In addition to his teaching and research responsibilities, Marc served as an associate editor for the ACS journal Macromolecules from 2008-2017 and is currently the editor-in-chief of Macromolecules. He is also the director of the Center for Sustainable Polymers headquartered at the University of Minnesota, a National Science Foundation Center for Chemical Innovation.