

## ENGINEERING SEMINAR ANNOUNCEMENT

# Comprehensive Dynamics in a Polyelectrolyte Complex

Fri, October 20<sup>th</sup>  
11:00 a.m.  
COE B221



FAMU-FSU  
College of  
Engineering

This event  
sponsored by  
**FAMU-FSU Engineering  
Department of Chemical  
& Biomedical Engineering**

Polyelectrolyte complexes, PECs, are obtained by mixing polyelectrolytes of opposite charge, Pol<sup>+</sup> and Pol<sup>-</sup>. Counterions are expelled as Pol<sup>+</sup> and Pol<sup>-</sup> pair together. The resulting material can be glassy to liquid-like, depending on the polymers mixed and the conditions used. This talk will focus on the viscoelastic properties of entangled PECs, ranging from the fastest to the slowest motions. Neutron scattering and other analytical techniques provide a comprehensive picture of the relationship between dynamics and viscoelastic properties, described well by a theory of “sticky” interacting polymers.



**Joseph Schlenoff, PhD**  
Robert O. Lawton Distinguished Professor of Chemistry  
and Leo Mandelkern Professor of Polymer Science  
Florida State University

Dr. Joseph Schlenoff received his BS degree in Chemistry from the University of Bristol in England and his doctorate in Chemistry from the University of Massachusetts. In 1988 he joined the Department of Chemistry at Florida State University and was promoted to full Professor in 1997. Dr. Schlenoff served as the associate director of FSU's Center for Materials Research and Technology from 1996 to 2006 and as chair of the Department of Chemistry and Biochemistry from 2007 to 2011, during which he served as chair of its New Building Committee. Prof. Schlenoff's lab's research focuses on the physical and polymer science behind polyelectrolyte multilayer thin films and their numerous applications, including as biomaterial coatings. Dr. Schlenoff has received numerous awards and distinctions during his career, including the Florida Award from the American Chemical Society and being named a Gutenberg Chair at the University of Strasbourg, France. With over 30 patents, Dr. Schlenoff is the president and CEO of nanoStrata Inc., a company formed in 2000 that specializes in robotics that automate processes involved in multilayer research. Prof. Schlenoff has over 190 publications with more than 13,000 citations.