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IMCN SEMINAR

« Processing Polyelectrolyte Complexes
With Salt »

Tuesday 30 April 2019 – 09:00 am
Auditorium CARNOY (B059)
Croix du Sud, 4, Louvain-La-Neuve

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ABSTRACT

Polymers have various mechanisms for interacting with each other, the most common is through entanglement at high concentration. Polymers with opposite charge can also stick to each other via pairs between charged segments. These interactions can be finely tuned by changing the salt concentration in solution. The linear viscoelastic responses for a series of polyelectrolyte complexes, PECs, having various molecular weights were measured. All characteristic lifetimes were slowed by “sticky” dynamics of positive, Pol+ and negative, Pol-, pairing, which could be accelerated by adding salt to the solution. Relaxation times for polymer partnering, entanglement and reptation were measured directly on some systems.

BIOGRAPHY

Joe Schlenoff is currently Robert O. Lawton Professor of Chemistry and Leo Mandelkern Professor of Polymer Science at Florida State University. He received a BSc from the University of Bristol, England in 1980 then worked for Polaroid Corporation in Boston, Massachusetts for a year. He then obtained a Master and PhD at the University of Massachusetts, Amherst in 1987 working with Jimmy Chien. After a postdoc at UMass with Frank Karasz he joined the faculty at FSU in 1988, where he has remained. Joe has been working in the field of surface science and polymer science, especially in polyelectrolytes. He received a Gutenberg chair visiting professor from the Région d’Alsace in 2011 and won the Florida Award for the American Chemical Society in 2013. This Spring he is at the University of Strasbourg for one semester under a Fulbright fellowship. Joe has been a senior Editor for the ACS Journal Langmuir since 2015.

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