



Seminar “IRTG Soft Matter Science”

Polymer Brushes: Valuable tools for the biology-materials interface

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Polymers are ideal materials for interfacing with biological systems as they share many of the same chemical components and properties. However, the majority of biomolecular species will still non-specifically bind to most polymer surfaces unless some care is given to molecular design. In response to environmental concerns, environmentally friendly coatings are being designed with tailored surfaces that mitigate settlement and depend on surface composition to control attachment. This talk describes synthetic strategies used to control specific and non-specific interactions in a variety of polymer brush architectures to form environmentally friendly coatings and surfaces. In particular, studies of amphiphilic block copolymers have been shown to be especially effective and will be a focus of this talk.

Brief bio: Christopher Ober received his BSc in Honours Chemistry (Co-op) from the University of Waterloo, Ontario, Canada in 1978. He received his PhD in Polymer Science and Engineering from the University of Massachusetts (Amherst) in 1982. From 1982 until 1986 he was a senior member the research staff at the Xerox Research Centre of Canada where he worked on marking materials. Ober joined Cornell University as an Assistant Professor in the Department of Materials Science and Engineering in 1986. He recently served as Interim Dean of the College of Engineering. He has pioneered new methods in photolithography and studies the biology-materials interface.

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Stefan-Meier-Str. 31, Freiburg

You are welcome to meet Prof. Ober do not hesitate to contact Christelle Vergnat (softmattergraduate@physik.uni-freiburg.de)