



演題：**Polymer Brushes: Patternable structures as interfaces with the biological environment**

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日時：2014年2月5日（水）15:00~17:00

場所：工学部材料・化学棟中会議室 (MC102)

共催：高分子学会北海道支部



要旨：

Polymers brushes are ideal for interfacing materials with biological systems as they share many of the same molecular components and properties. Polymer brushes provide remarkable screening power in shielding a substrate from the environment through both steric and charged interactions. However, the majority of biomolecular species will still non-specifically bind to polymer brush surfaces unless some care is given to molecular design. Several polymer brush systems are described to control interaction of biomacromolecules and cells by design of specific and non-specific interactions. "Grown from" and block copolymer brushes are described, both of which provide excellent substrates for study of brush surfaces. Examples of polymer brushes used for sensor creation and for investigation of cellular interaction are provided. Brushes used in non-fouling coatings tailored for marine applications and in which amphiphilic structures play an important role are also discussed. Finally the prospect for using brushes as building blocks of nanomaterials will be described.

本講演は、大学院総合化学院『化学研究先端講義／総合化学特別研究第二』の一部として認定されています。

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