Frontier Chemistry Center 講演会
フロンティア化学教育研究センター

演 題：**Carbohydrate-based block copolymer: Highly nanostructured thin films**

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要 旨：
To date, numerous studies have been focused on the self-assembly of petroleum-based block copolymers (BCPs) for potential applications in multidisciplinary fields, such nano-organized films for biosensors, or nanolithography, etc. Such materials are derived from fossil resources that are being rapidly depleted and have negative environmental impacts. In contrast, carbohydrates are abundant, renewable and constitute a sustainable source of materials. This is currently attracting much interest in various sectors and their industrial applications at the nanoscale level will have to expand quickly in response to the transition to a bio-based economy. The self-assembly of carbohydrate BCP systems at the nanoscale level via the bottom-up approach, has allowed only recently the conception of very high-resolution patterning (thin films with sub_10nm resolution) that has never been attained to date by petroleum-based molecules and provides these new materials with novel properties such as: New generation of Nanolithography, Memory devices, OPV, high resolution Biosensors. We will present recent results on the self-assemblies of carbohydrate-based block copolymer leading to highly nanostructured thin films (sub-10nm resolution) using Directed Self-Assembly (DSA) approach in combination of solvent and/or thermal annealing as well as new and ultra-fast microwave “cooking” approach”.

出席確認方法：
Webex 入室時に（学生は学生番号および）氏名をチャットで記入してください。

主　催：北海道大学大学院総合化学院，フロンティア化学教育研究センター

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