

演 題 : **Experimental Horizons of Polymer Characterization and Application**

講 師 : **Prof. Brian J. Ree**

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日 時 : 2025 年 6 月 12 日 (木) 14:45~16:15

場 所 : 材料化学系棟 MC201 (Zoom によるハイブリッド開催)

要 旨 : The morphology of conventional organic polymers in either solid or solution state presents an innate challenge that the density contrast levels are quite low when compared to inorganic materials, which inevitably renders characterization difficult. Of all methods of morphology characterization, X-ray scattering is unique with respect to the fact that it is highly sensitive to electron density contrast, and can effectively measure the self-assembled structures of polymer chains. Progress in synchrotron operation over the last three decades yielded higher flux and tunable levels of high energy X-ray beams in which, along with improved detectors, have greatly expanded the horizons of polymer morphology research. The wide flexibility and nondestructive nature regarding the measurement conditions makes X-ray scattering a powerful tool. In addition, as long as the incident X-ray beam's pathway through the sample and to the detector is not disturbed, the sample stage could be designed to accommodate a variety of conditions or in-situ, dynamic experiments. This talk will specifically explore various applications of using X-ray scattering for characterizing several systems of polymers in both solid and solution state, and different methods of analyzing the data to gather morphological parameters from the measurements.

参加方法 :

ライブ配信(Zoom) :

<https://zoom.us/j/91942769972?pwd=Lkk5R7JQHRem7feNKxZO5pYQpdCBJb.1>

ミーティング ID : 919 4276 9972、パスコード : 168704

出席確認方法 :

Zoom 入室時に (学生は学生番号および) 氏名をチャットで記入すること。

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