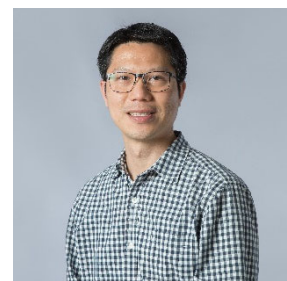


演題：Microporous materials for sustainable chemical engineering

講師：Associate Professor Alex Yip

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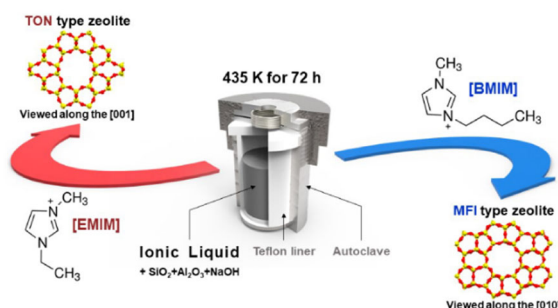
日時：2022年12月19日（月）15:00~16:30

場所：フロンティア応用科学研究棟2階 セミナー室2

要旨：

Sustainable development of the chemical industry is recognised as one of the key challenges for the industry. In the last decade, many efforts have been made to develop new materials and technologies toward renewable energy and environmental improvement. Zeolites, also known as molecular sieves, are a family of aluminosilicate materials that are widely used for catalysis, membrane gas separation and adsorption. Due to their orderly distributed micropores in molecular dimensions, we have seen zeolites become an interestingly important material in many sustainable processes, such as biomass conversion, CO₂ capture, and water purification.

In this seminar, we will specifically discuss two important technical aspects of zeolite science: (1) improvement of zeolite catalysis (e.g., C1 homologation for jet-fuel synthesis) through the understanding of mechanistic pathways and (2) zeolite structure determination through atypical synthesis routes (e.g., using ionic liquids as a structure-directing agent). These aspects of research support the advancement of zeolite science and its applications towards sustainable chemical engineering.



連絡先：工学研究院応用化学部門 荻野 勲（内線：6595）