東京大学グローバルCOEプログラム　機械システム・イノベーション国際拠点

東京大学 THE UNIVERSITY OF TOKYO

GMSI Global Center of Excellence for Mechanical Systems Innovation

# 第65回　GMSI公開セミナー

## Catalysis by porous materials for fine chemicals production


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## 要旨


There is an urgent need for environmentally acceptable processes for the synthesis of fine and speciality chemicals. In general, fine chemical synthesis requires various successive steps and many of them are carried out in homogeneous phase using acid catalyst such as $H_2SO_4$, HF, $AlCl_3$ etc. These acids are not reusable and have to be neutralized, which generate large amount of waste posing environmental problems. Therefore, new processes in the production of fine and petrochemicals are needed to reduce by-product formation to minimise the waste. The solid acid catalysts, in particular zeolite and zeotype materials play an important role in the development of cleaner and efficient processes for the production of fine chemicals and pharmaceuticals.

This talk will focus the synthesis of fine chemicals such as thymol, raspberry ketone, bis(indolyl) methanes, flavanone and benzo[b]thiophene using zeolities, modified zeolites and other porous solids. It is also established that solid acid catalysts are viable and ecofriendly alternative to mineral acid catalysts in the synthesis of fine and specialty chemicals.



主催：　東京大学グローバルCOEプログラム「機械システム・イノベーション国際拠点」
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