



HOKKAIDO UNIVERSITY

# AMBITIOUS LEADER'S PROGRAM

Fostering Future Leaders to Open New Frontiers in Materials Science

Ambitious 物質科学セミナー

## Zeo-click synthesis: metal-doped zeolites as green catalysts in organic synthesis



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**平成 27 年 3 月 18 日 (水) 15:00~16:30**

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With increasing environmental concerns at the end of the XX<sup>th</sup> century, several chemical approaches were combined a decade ago leading to the advent of 'Green Chemistry' together with challenges in discovering and developing new synthetic methods towards cleaner syntheses and production processes. Within this context, we are currently developing new heterogeneous catalysts (i) easy-to-prepare, easy-to-handle, easy-to-recover and recyclable, (ii) able to efficiently, quickly and reliably generate drug-like substances by joining appropriate units together.

In combining the properties of zeolites (heterogeneous solid support, size and shape selectivities) with those of metal ions known for their properties in homogeneous catalysis, we found that metal-doped zeolites offer such properties, leading to what we called the "zeo-click" approach.

Representative examples will be given, as well as recent examples with other solids (POM, MOF).

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