

How is your work related to the design principle and goal of IMASC?

The design principle of IMASC is to combine a minor amount of active metal with a less active majority phase to produce desired products with high selectivity. The preparation of NiCu and PtCu highly dilute alloys with improved activity and stability than that of Cu, as well as the identification of active sites in my work has a significant contribution to the design principle of IMASC. The comparison of supported alloy nanoparticles with their nanoporous counterparts is also important to guide the design of the mesoporous catalyst architectures for selective dehydrogenation or oxidation reactions.

How do you collaborate with other members of IMASC?

IMASC provides a wonderful platform for young investigators to share their scientific insights and findings, through a weekly team meeting. IMASC also create a good platform to perform interdisciplinary collaborations. Our group has close collaborations with the groups of Friend/Madix, Sykes, and Biener to investigate alcohol dehydrogenation on highly dilute alloys. These interdisciplinary collaborations are important for research in IMASC and development of young investigators.