

GTR-RCMS-IRCCS Seminar

SMALL MOLECULE ACTIVATION AT TRANSITION METAL CENTERS: STRUCTURE-FUNCTION CORRELATIONS



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***Noyori Materials Science Laboratory
2F Lecture Room***

Abstract: This talk will focus on some of the recent highlights from our group on homogenously catalyzed bioinspired activation of small molecules. It will cover many aspects of small molecule activation including: organometallic chemistry, spectroscopy, synthesis, and detailed mechanistic studies involving trapping of reactive intermediates. The demonstrated examples will help to emphasize the continuous effort of our group in uncovering the structure-reactivity relationships of biomimetic model complexes, which may allow vital insights into the prerequisites necessary for the design of efficient catalysts for the selective functionalization of unactivated C–H bonds, O₂/H₂O/H₂O₂ activations, or CO₂ or H⁺ reductions by using cheap and readily available first-row transition metals under ambient conditions.

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