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**Generation of molecular species on graphene-based materials and their catalytic applications**

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Chemical designing on nano-materials in molecular level would be a promising route to create new hybrid materials and to control various properties of nano- and molecular materials. Organometallic compounds have been a center of molecular catalysts with preeminent catalytic activity and selectivity in a wide range of chemical transformations. As carbon-based nanomaterials, such as graphene-based materials, carbon nanotubes, and carbon nitrides, are sterically bulky, and they exhibit a wide spectrum of electrical properties, they can dramatically tune the catalytic behavior of transition metal-based active species. Hybridization of organometallic complexes with graphene-based materials can give rise to enhance catalytic performances. In this presentation, I will discuss my recent research activities on the fundamental chemistry of carbon-based nano-materials as well as catalytic applications.

**Biography**

Sungjin Park has completed his PhD from KAIST, Korea and postdoctoral studies from Northwestern University and University of Texas at Austin. Currently, he is an Associate Professor at Inha University. He has published more than 85 papers in reputed journals.

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