Frontier Chemistry Center
フロンティア化学教育研究センター

先端学術講演会

演 題：**Organosilicon compounds as unique salt-free reducing reagents of metal compounds, generating catalytically active species**

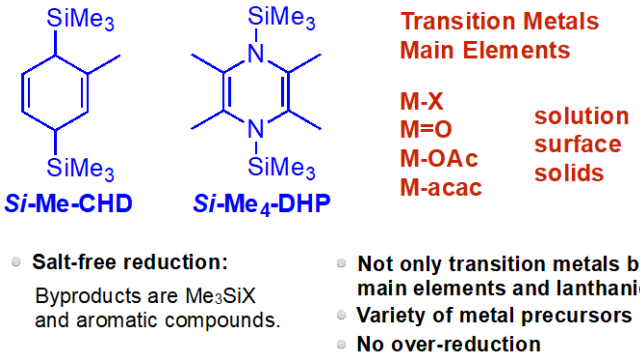
* This seminar will be conducted in Japanese language.

講 師：**Prof. Kazushi Mashima**
Graduate School of Pharmaceutical Sciences, Osaka University, Japan

日 時：2025 年 5 月 28 日（水）16:30~18:00

場 所：フロンティア応用科学研究棟 2 階 セミナー室

要 旨：Low valent transition metal complexes have been utilized as reagents and catalysts for various bond formation reactions. Various reagents have been developed for reducing higher oxidation metal precursors such as metal halides; however, the interaction of the resulting salts with the in situ generated low-valent or zero-valent metal species disturbed their intrinsic reactivity and catalytic performance. We recently developed a conceptionally new methodology for generating low-valent catalytically active metal species in a salt-free manner upon treating metal sources with versatile reducing reagents such as 3,6-bis(trimethylsilyl)-1,4-cyclohexadienes and 1,4-bis(trimethylsilyl)-1,4-dihydropyrazines. It is highlighted to apply the salt-free reduction method for reducing vanadium, tungsten, nickel compounds and so on for generating catalytically active species. In this presentation, we will also deliver that diboron compounds potentially serve as another reducing reagents.



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