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Seminar  
Series

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## Carbenium-based ambiphilic ligands in transition metal and main group chemistry



**Place:** Seminar Room 2, Frontier Research in Applied Sciences Building, Hokkaido University

**Time:** Wednesday, 28 January 2026  
16:30-18:00

**Abstract:** We will describe our recent endeavors in the chemistry of ambiphilic platforms featuring a carbenium ion as the electron-poor functionality. When used as ligands for transition metals, we will show that these systems support unusual metal-to-carbon dative interactions and influence the catalytic and photoredox properties of transition metals. The presentation will also include examples of systems in which the carbenium unit engages in inner-outer isomerism through coordination of a Lewis base or supports single-electron  $\sigma$ -bonding interactions when interfaced with a reducible main group unit.