Department of Chemistry
香港城市大學
City University of Hong Kong

Distinguished Seminar Series

Frustrated Lewis Pairs: Reactivity across the Periodic Table

By

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Date: **28 April 2026 (Tuesday)**

Time: **11:15 am – 12:15 pm**

Venue: **G5-314 (Green Zone, 5th Floor)**
Yeung Kin Man Academic Building
City University of Hong Kong

For abstract, please refer to the attached sheet.

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~ All Are Welcome ~

Abstract

Over the last 20 years, the concept of frustrated Lewis pairs (FLPs) has emerged, enabling metal-free hydrogenation and main group catalysis. This has led to a number of applications in organic chemistry, while the concept has also proved more general, being extended to material science, polymer chemistry, heterogeneous catalysis and even transition metal chemistry. In this lecture, we will describe recent advances in and inspired by FLP chemistry. Much of the lecture will focus on new group 15 chemistry demonstrating that the concepts FLP is also a useful paradigm for stoichiometric reactivity across the periodic table.

Biography

Douglas (Doug) Stephan earned his BSc at McMaster (1976) and PhD at UWO (1980) in Canada. After a NATO PDF (Harvard), he began his career at the University of Windsor (1982) and became full Professor (1992), a NSERC Industrial Research Chair (2001), University Professor (2002) and Canada Research Chair (2005). In 2008 he moved to the University of Toronto as Professor and Canada Research Chair, became a University Professor (2018) and named the J.C. Polanyi Chair in Chemistry (2023). He was an Associated Editor and Chair of the board for Chemical Society Reviews and has been the Chair of the editorial board of Chemical Communications since 2020-2027. A world-leading researcher in inorganic chemistry. His work has spanned the periodic table, working in both transition metal and main group chemistry and catalysis, although he is best known as the founder of the field of “frustrated Lewis pair” (FLP) chemistry.