

特別講演会のお知らせ

Prof. Rory Waterman

(University of Vermont, Burlington)

**“Advances in Catalytic
Hydrophosphination”**



日時 2022年10月17日（月） 16:30~18:00

場所 理学部本館 N-308 号室 （対面開催）

講演要旨

An important challenge for chemists is increasingly efficient routes to element-carbon bonds, as characterized by energetic costs and atom economy, among other factors. Hydrophosphination, or P-C bond formation, has challenges in substrate scope, selectivity, and catalyst activity. In an arc from zirconium to iron to copper, high activity and access to previously inaccessible substrates has been witnessed. The key to this reactivity has been photoactivation and photocatalysis. In the case of photocatalysis, high activity has been seen in d^0 to d^8 metals. This activity is hypothesized to arise from excitation to a low-lying orbital that has significant M-P antibonding character, weakening that bond to avail faster insertion.

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