



Department of Chemistry

香港城市大學
City University of Hong Kong

Distinguished Seminar Series

***Exploration of C-P Bond Formation for the
Assembly of Chiral Phosphorus Compounds***

By

Prof. WANG Jun (Joelle)

Chair Professor

Department of Chemistry

Hong Kong Baptist University, Hong Kong, China

Date: 18 September 2026 (Friday)

Time: 11:00 am – 12:00 noon

**Venue: HKICE (MMW6400, 6th Floor)
Mong Man-wai Building
City University of Hong Kong**

For abstract, please refer to the attached sheet.

Contact: Prof. Stephen FU (3442-7403, wc.f@cityu.edu.hk)

~ All Are Welcome ~

Abstract

Transition metal-catalyzed asymmetric hydrophosphination and C-P coupling reactions are among the most direct and efficient pathways for synthesizing chiral phosphine compounds. Recently, our research group has developed asymmetric hydrophosphination protocols for alkenes, allenes, and alkynes,¹ alongside diverse C-P coupling strategies.² These approaches enable concise, direct, and modular access to a library of potentially valuable chiral phosphorus compounds. This significantly enhances reaction selectivity and efficiency. Beyond chemistry, its impact extends to pharmaceuticals, agrochemicals, materials science, and environmental and sustainable technologies.

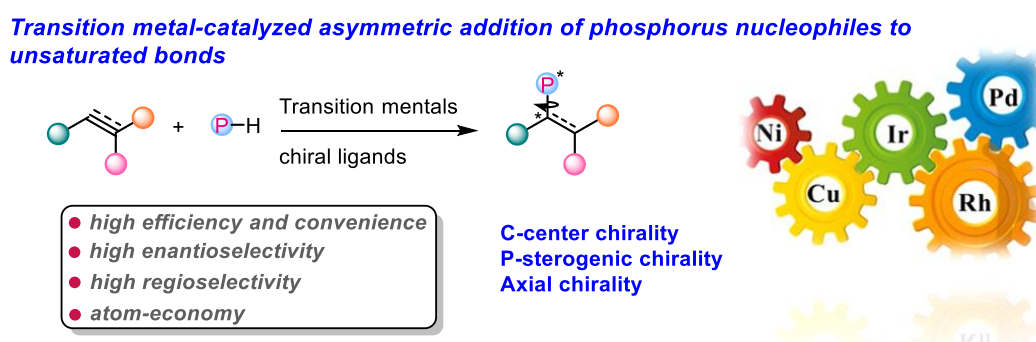


Figure 1. Asymmetric Hydrophosphination

Keywords: hydrophosphination, C-P coupling, ligand design, asymmetric catalysis

Reference:

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- (a) Yang, Z.; Cheng, J. **Wang, J.*** *J. Am. Chem. Soc.* **2026**, 6, 779-787. (b) Yang, Z.; Gu, X.; Han, L.-B.; Wang, J.* *ACS, Catal.* **2025**, 15, 8268-8273. (c) Zhu, H.; Takeda, K.; Yang, Z.; Takita, R.*; Wang, J.* *Cell Rep. Phy. Sci.* **2025**, 6, 102798.

Biography



Prof. Jun (Joelle) Wang embarked her academic journey by a bachelor's degree from Lanzhou University and an M.Phil. at the Shanghai Institute of Organic Chemistry (SIOC), Chinese Academy of Sciences. She earned her Ph.D. at Hong Kong Polytechnic University under the supervision of Prof. Albert S. C. Chan. After postdoctoral research at UT Southwestern Medical Center (UTSW) in Dallas USA, she worked as an assistant and tenured associate professor at the Southern University of Science and Technology (SUSTech) during 2012-2020. In 2020, she joined the Department of Chemistry at Hong Kong Baptist University (HKBU), and was promoted to chair professor in 2026.

Prof. Wang was honored with the Thieme Chemistry Journals Award and the Asian Core Program Lectureship Award from Singapore in 2017. In 2022, she was elected as a member of the Hong Kong Young Academy of Sciences (YASHK). She was awarded the Research Excellence Paper Award 2022/2023 by faculty of science and the Outstanding Research Output Award 2023/24 by HKBU. In 2024, Prof. Wang was awarded the JSPS Invitational Fellowship, during which she delivered about 20 lectures at universities in Japan. In 2025, she has received the Asian Core Program Lectureship Award from Taiwan and Thailand. She has been selected as one of nine awardees for the 2025/26 RGC Senior Research Fellow Scheme (SRFS).