**DESCRIPTION**

The first handbook on this emerging field provides a comprehensive overview of transition metal-catalyzed coupling reactions in the presence of an oxidant. Following an introduction to the general concept and mechanism of this reaction class, the team of authors presents chapters on C-C cross-coupling reactions using organometallic partners, C-Heteroatom bond forming reactions via oxidative couplings, and C-H couplings via C-H activation. The text also covers such groundbreaking topics as recent achievements in the fields of C-C and C-X bond formation reactions as well as C-H activation involving oxidative couplings.

With its novel and concise approach towards important building blocks in organic chemistry and its focus on synthetic applications, this handbook is of great interest to all synthetic chemists in academia and industry alike.

**ABOUT THE AUTHOR**

Aiwen Lei is a professor of organic chemistry at the College of Chemistry and Molecular Sciences and the executive director of the Institute of Green Catalysis at Wuhan University, China. After obtaining his PhD in 2000 under the supervision of Prof. Xiyan Lu, he went to Pennsylvania State University and then to Stanford University for post-doctoral research. In 2005 he was appointed professor at Wuhan University. Aiwen Lei has received the Chinese Chemistry Society - John Wiley Young Chemist Award (2008), the National Science Fund for Distinguished Young Scholars in China (2010) and the Eli Lilly Scientific Excellence Award in Chemistry in 2011.
Wei Shi is an associate professor at the Huazhong Agricultural University (Wuhan, China) since 2011. He obtained his PhD at Wuhan University under the supervision of Prof. Aiwen Lei. His research interest is focused on the chemistry of alkynes and their derivatives.

Chao Liu is a professor at Lanzhou Institute of Chemical Physics, Chinese Academy of Science, China. He received his PhD in 2012 from the Wuhan University, China, under the supervision of Prof. Aiwen Lei. From October 2008 to October 2009 he was an exchange PhD student at Durham University, UK, in the group of Prof. Todd B. Marder. His research is focused on oxo-synthesis and selective oxidation.

Wei Liu is an associate professor at the College of Food Science and Technology, Henan University of Technology (Zhengzhou, China). He obtained his PhD from the College of Chemistry and Molecular Sciences, Wuhan University, China, in the group of Prof. Aiwen Lei in 2010. His research interest focuses on the green organic synthesis and catalytical biomass transformation.

Hua Zhang is a professor at Nanchang University, China. He obtained his PhD degree under the supervision of Prof. Aiwen Lei at Wuhan University in 2013. After that, he spent two years as a JSPS postdoctoral researcher in Prof. Kenichiro Itami’s lab at Nagoya University, Japan. His current research is focusing on non-noble transition metal catalysis.

Chuan He is a Marie Curie Research Fellow at the Department of Chemistry, University of Cambridge, UK. He obtained his PhD from Wuhan University, Chain, under supervision of Prof. Aiwen Lei in 2013. He then joined Prof. Matthew Gaunt's group as a postdoctoral researcher at the University of Cambridge, UK. His current research focuses on transition-metal-catalyzed C?H bond functionalization.

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