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Fundamentals and Applications of Copper-Based Catalysts

Guest Editor:

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Message from the Guest Editor

Copper has continued to be one of the most utilized and important transition metal catalysts in synthetic organic chemistry. In addition to its economic and environmental advantage over precious transition metal catalysts arising from the high earth abundance, the versatile catalysis ranging from long-established reactions (e.g. Ullmann coupling and Goldberg amination) to recently increasing boron-installing reactions has garnered much attention from synthetic chemists. This Special Issue aims to cover recent progress in appealing and unique copper catalysis in all areas of synthetic transformations, including C–C bond-forming reactions, C–heteroatom bond-forming reactions, C–H bond functionalization, metalation reaction, cycloaddition, etc.

Keywords

- Copper catalyst
- C-C bond-forming reaction
- C-heteroatom bond-forming reaction
- C–H bond functionalization
- Metalation reaction
- Cycloaddition
- Oxidative reaction
- Enantio- and/or stereoselectivity
- Reaction mechanism



