Advances in Kumada–Tamao–Corriu cross-coupling reaction: an update

Majid M. Heravi, Vahideh Zadsirjan, Parvin Hajiabbasi & Hoda Hamidi

*Department of Chemistry, School of Science, Alzahra University, Vanak, Tehran, Iran

Abstract

The formation of the C–C bond is a major and important reaction in synthetic organic chemistry and frequently catalyzed by transition-metal catalysts. Among them, Kumada–Tamao–Corriu coupling reaction is providing a simple methodology and extensively employed in the art of organic synthesis. In this review, we try to highlight the recent advances in the applications of Kumada–Tamao–Corriu coupling reaction by updating of our previous review from 2012 up to date.

Keywords: Carbon–carbon bond formation, Cross-coupling reaction, Grignard reagent, Kumada–Tamao–Corriu reaction, Nicel catalyst, Transition metal