

RSC Speciality Chemicals Symposium 2009: Catalysts for Change

Beyond Palladium - The New Iron Age

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Over the last few decades palladium catalysis has formed the bedrock of many important C-C and C-heteroatom bond-forming reactions. However there are major issues with the use of palladium, such as the cost of the metal, the need to remove heavy metal contamination to low ppm levels in pharmaceutical intermediates and the lack of activity shown with challenging substrates such as secondary alkyl halides. Driven in a large part by these concerns, iron-catalysed C-C bond forming processes are currently undergoing a renaissance. This talk will cover aspects of this rapidly emerging field and in particular will focus on the use of iron catalysis with 'softer' nucleophilic coupling reagents such as aryl-zinc and aryl boron reagents which present particular challenges but also promise substantial rewards.
