Aromatic functionalization by the Palladium and Norbornene catalytic system

Palladium/norbornene catalysis is a remarkable tool for the synthesis of complex organic molecules starting from simple building blocks. This catalytic system controls the reactivity of a complex mixture of simple molecules, which are assembled in a well-defined order even though other reaction pathways are in theory possible. Thus, for example, in a single operation both the ortho and ipso positions of an aryl halide can be selectively functionalized with different species in a reliable and predictable manner. After the publication of this process in 1997, several groups have explored the synthetic utility of this methodology and have obtained results of great interest. Further studies in this field keep delivering significant perspectives in synthetic applications and mechanistic aspects.