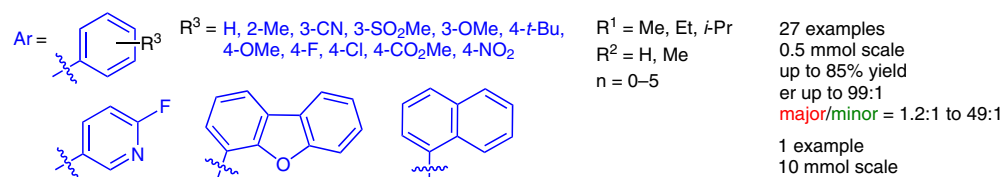
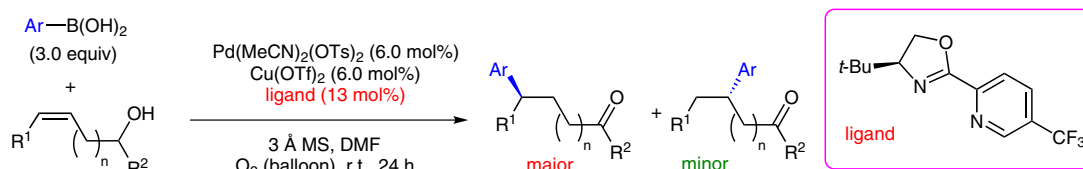
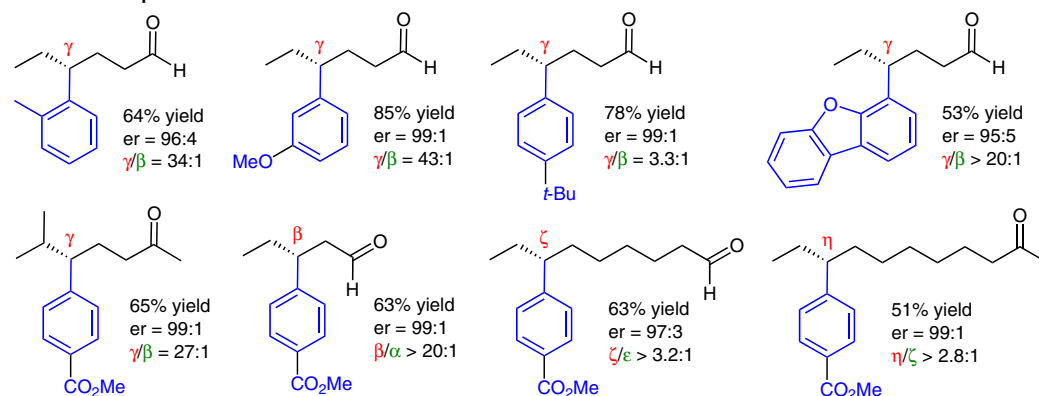


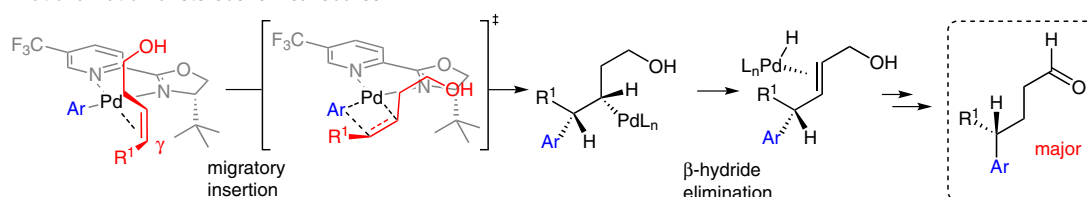
Asymmetric Redox-Relay Oxidative Heck Arylations



Selected examples:



Rationalization of stereochemical course:



Significance: The generation of stereogenic centers which are remote to functional groups via carbon–carbon bond formation is currently an interesting topic in organic chemistry. Herein, the authors report a highly efficient palladium-catalyzed oxidative Heck reaction of alkenyl alcohols furnishing optical active aldehydes via a redox-relay process.

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Comment: The authors demonstrated that the strategy of the redox-relay process is applicable even on an η -position, for the site-selective and highly enantioselective arylation of alkenyl alcohols. Additionally, preliminary mechanistic investigations are conducted for rationalizing the stereochemical course of the palladium- and copper-catalyzed reaction.

Category

**Metal-Catalyzed
Asymmetric
Synthesis and
Stereoselective
Reactions**

Key words

oxidative Heck
reaction

redox relay

palladium

copper

alkenyl alcohols

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of the month