Category

Metal-Mediated Synthesis

Key words

nickel

cyclization

zinc

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Nickel-Catalyzed Reductive Cyclization of Alkyl Dihalides

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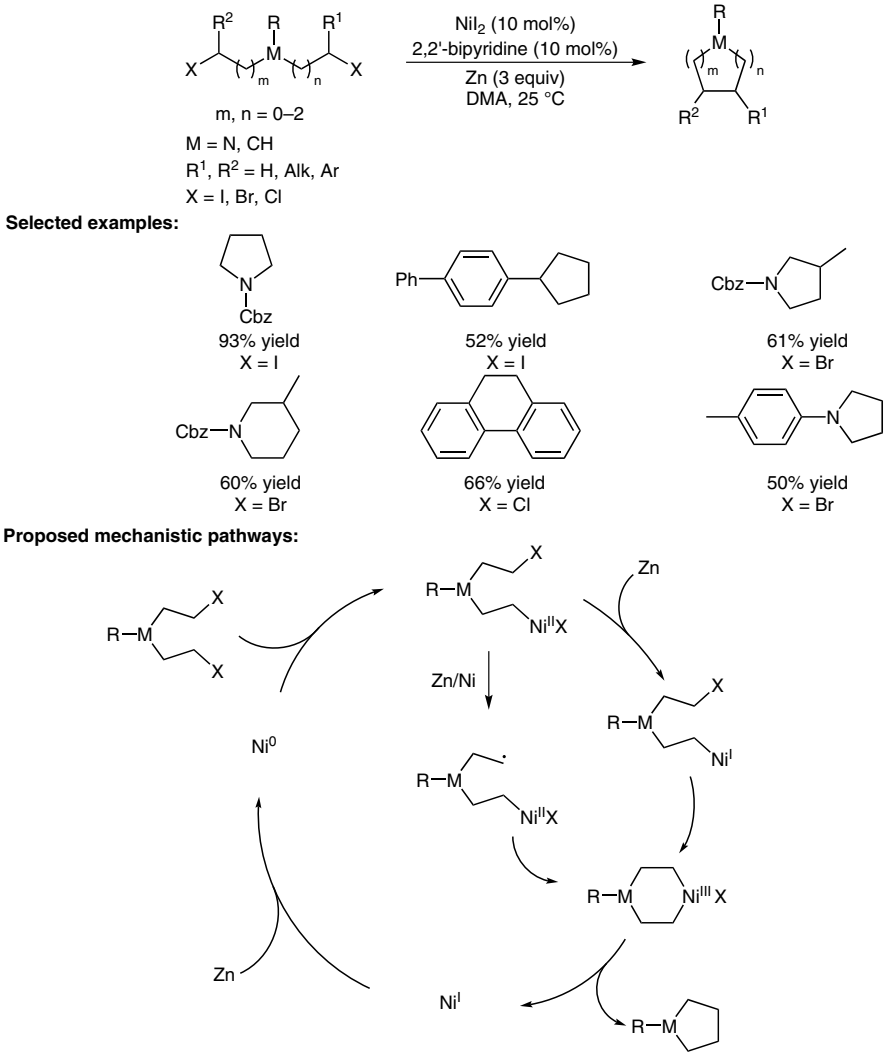
Nickel-Catalyzed Intramolecular Cyclization of Dihaloalkanes



Significance: The authors have developed an intramolecular cyclization of nitrogen- and carbon-tethered dihaloalkanes. The protocol is especially effective for five-membered rings and only moderately for six-membered rings. The reactions were performed under mild reactions conditions.

Comment: The coupling involving secondary alkyl halides appears to be more efficient than the cyclization of primary/primary alkyl dihalides. Interestingly, the construction of a seven-membered ring is less efficient. Side-reactions are intermolecular oligomerization and hydrodehalogenation of the substrate.

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