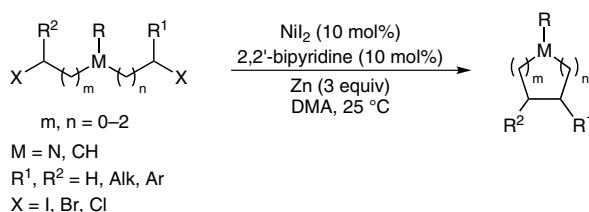
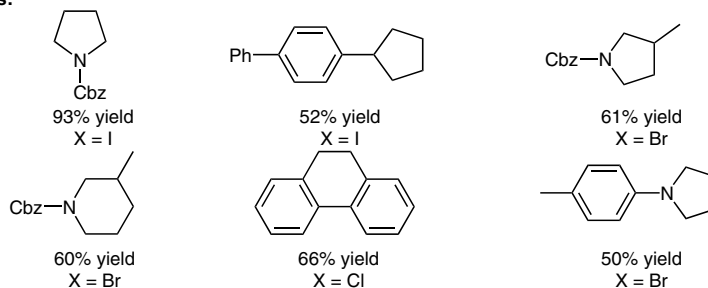


W. XUE, H. XU, Z. LIANG, Q. QIAN,\* H. GONG\* (SHANGHAI UNIVERSITY AND ZHENGZHOU UNIVERSITY, P. R. OF CHINA)  
Nickel-Catalyzed Reductive Cyclization of Alkyl Dihalides  
*Org. Lett.* **2014**, *16*, 4984–4987.

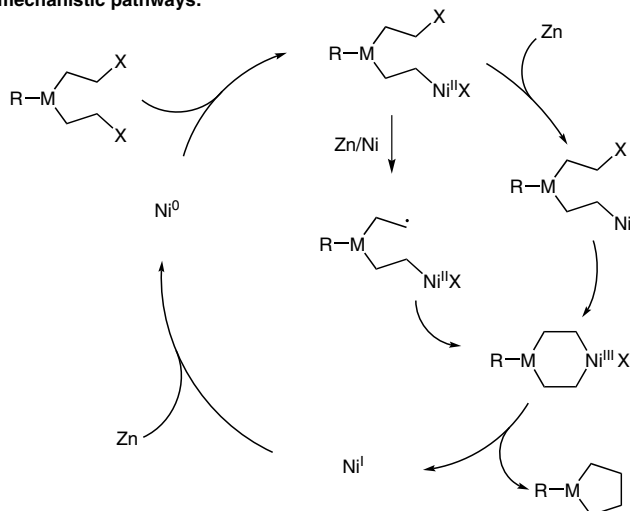
## Nickel-Catalyzed Intramolecular Cyclization of Dihaloalkanes



### Selected examples:



### Proposed mechanistic pathways:



**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.

**SYNFACTS Contributors:** Paul Knochel, Thomas Klatt  
 Synfacts 2015, 11(1), 0076 Published online: 15.12.2014  
 DOI: 10.1055/s-0034-1379653; Reg-No.: P15714SF

2015 © THIEME STUTTGART • NEW YORK