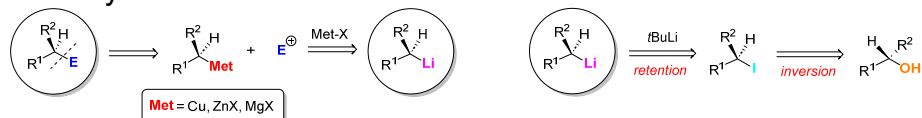


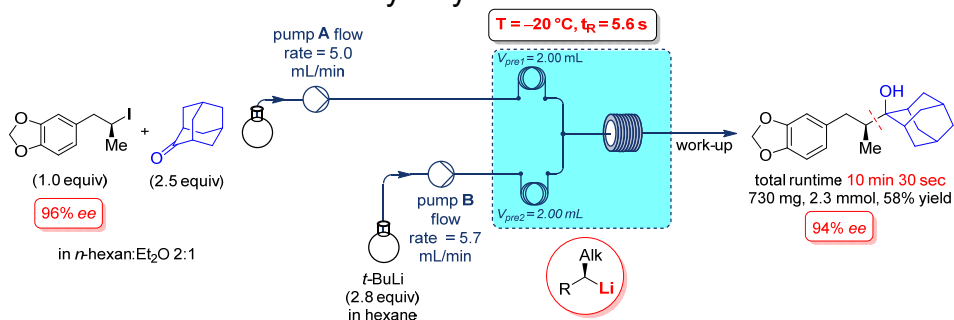
Polyfunctional Li, Na, Mg, and Zn Organometallics in Organic Synthesis

Prof. Dr. Paul Knochel
 Ludwig-Maximilians-University Munich, Chemistry Department, Butenandtstr. 5-13
 D-81377 Munich, Germany
 E-Mail : Paul.Knochel@cup.uni-muenchen.de

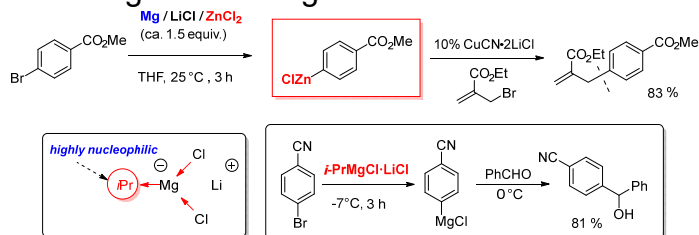
- Stereoselective retrosynthesis for C-C bond formation



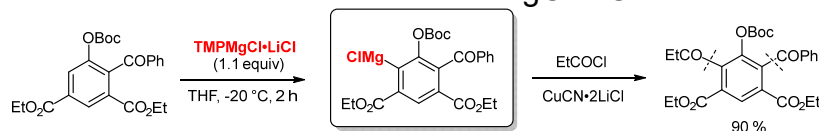
- Barbier-type reactions of chiral secondary alkylolithiums



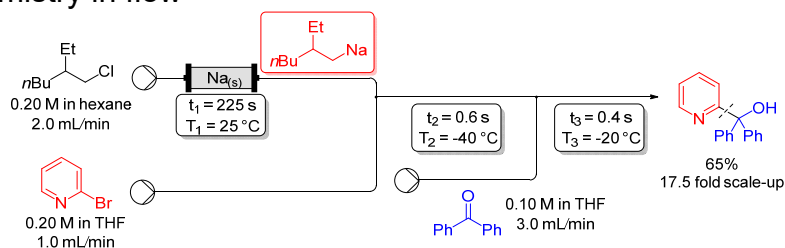
- Preparation of polyfunctional Mg- and Zn-organometallics



- Magnesiations of arenes and heteroarenes with TMPMgCl·LiCl



- Organosodium chemistry in flow



References:

- Skotnitzki, J.; Kremsmair, A.; Knochel, P. *Synthesis* **2019**, 52, 189-196.
- Kremsmair, A.; Harenberg, J. H.; Schwaerzer, K.; Hess, A.; Knochel, P. *Chem. Sci.*, **2021**, 12, 6011–6019.
- Kremsmair, A.; Wilke, H. R.; Harenberg, J. H.; Bissinger, B. R. G.; Simon, M. M.; Alandini, N.; Knochel, P. *Angew. Chem. Int. Ed.* **2023**, 62, e202214377.
- Piller, F. M.; Metzger, A.; Schade, M. A.; Haag, B. A.; Gavryushin, A.; Knochel, P. *Chem. Eur. J.* **2009**, 15, 7192-7202.
- Krasovskiy, A.; Knochel, P. *Angew. Chem. Int. Ed.* **2004**, 43, 3333-3336.
- Lin, W.; Baron, O.; Knochel, P. *Org. Lett.* **2006**, 8, 5673-5676.
- Harenberg, J. H.; Weidmann, N.; Wiegand, A. J.; Hofer, C. A.; Annapureddy, R. R.; Knochel, P. *Angew. Chem. Int. Ed.* **2021**, 60, 14296-14301.