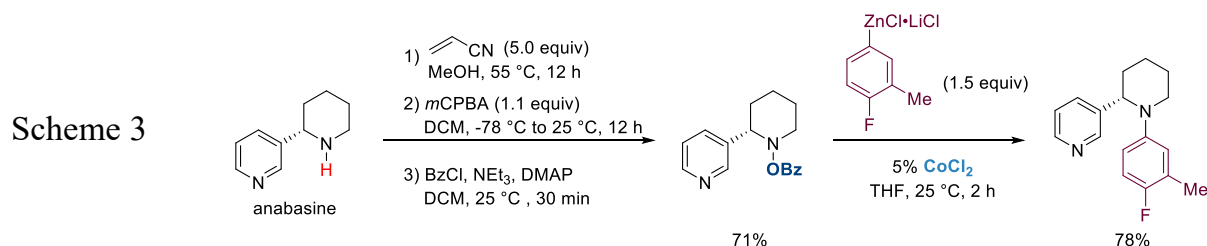
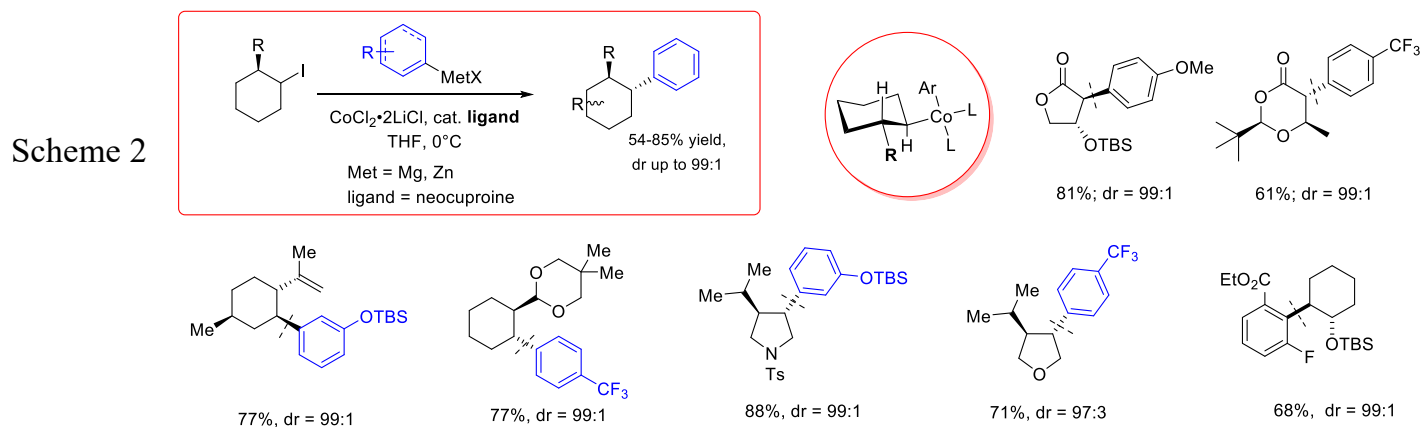
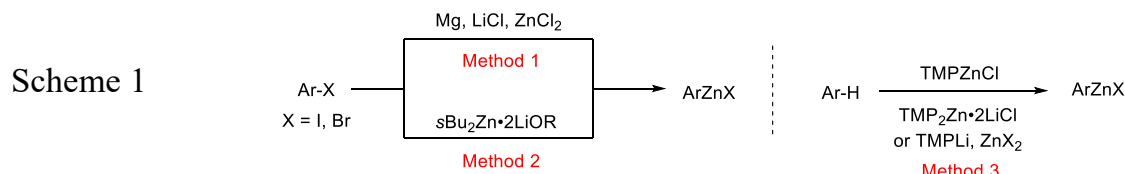


Cobalt-Catalyzed C-C and C-N Couplings using Polyfunctional Organozinc Reagents

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Transition metal catalyzed cross-couplings are important tools for the pharmaceutical and agrochemical industries. Herein, we will first describe the most important methods for preparing polyfunctional organozinc reagents and describe their use for performing cobalt-catalyzed cross-couplings and aminations.



- [1] D. Haas, J. M. Hammann, F. H. Lutter, P. Knochel *Angew. Chem., Int. Ed.* **2016**, *55*, 3809.
- [2] A. D. Benischke, M. Leroux, I. Knoll, P. Knochel *Org. Lett.* **2016**, *18*, 3626.
- [3] M. S. Hofmayer, J. M. Hammann, D. Haas, P. Knochel *Org. Lett.* **2016**, *18*, 6456.
- [4] J. M. Hammann, F. H. Lutter, D. Haas, P. Knochel *Angew. Chem. Int. Ed.* **2017**, *56*, 1082.
- [5] J. M. Hammann, L. Thomas, Y.-H. Chen, D. Haas, P. Knochel *Org. Lett.* **2017**, *19*, 3847.
- [6] L. Thomas, F. H. Lutter, M. S. Hofmayer, P. Knochel *Org. Lett.* **2018**, *20*, 2441.
- [7] J. Li, P. Knochel *Angew. Chem. Int. Ed.* **2018**, *57*, 11436.
- [8] S. Grassl, Y.-H. Chen, C. Hamze, C.-P. Tuellmann, P. Knochel *Org. Lett.* **2019**, *21*, 494.
- [9] M. S. Hofmayer, F. H. Lutter, L. Grokenberger, P. Knochel *Org. Lett.* **2019**, *21*, 36
- [10] J. Li, E. Tan, N. Keller, Y.-H. Chen, T. Bein, P. Knochel *J. Am. Chem. Soc.* **2019**, *141*, 98.
- [11] S. Grassl, C. Hamze, T. J. Koller, P. Knochel *Chem. Eur. J.* **2019**, *25*, 3752.