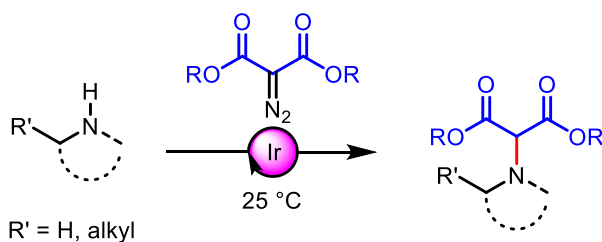


General Ir-Catalyzed N-H insertions of Diazomalonates into Aliphatic and Aromatic Amines

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A general N-H insertion reactivity of acceptor-acceptor diazo malonate reagents is developed under the Ir-catalysis,^[1] which might be used for the protection of the amino groups^[2] or for further reactivity.^[3] A large range of amines, primary and secondary, aliphatic and aromatic, is possible. The functional group tolerance, together with the mild reaction temperatures, and perfect substrate / reactant stoichiometry renders the process particularly attractive for the (late-stage) functionalization of amines.



Aliphatic & aromatic amines	✓
Cyclic & acyclic	✓
Unhindered & hindered	✓
Late-stage functionalization	✓
1:1 Reagent stoichiometry	✓
Mild reactivity	✓

References:

- [1] K. Ramakrishna, C. Sivasankar, *Org. Biomol. Chem.* **2017**, *15*, 2392-2396.
- [2] P. V. Kattamuri, J. Yin, S. Siriwongsup, D.-H. Kwon, et al., *J. Am. Chem. Soc.* **2017**, *139*, 11184-11196.
- [3] A. Homberg, D. Poggiali, M. Vishe, C. Besnard, L. Guénée, J. Lacour, *Org. Lett.* **2019**, *21*, 687-691.