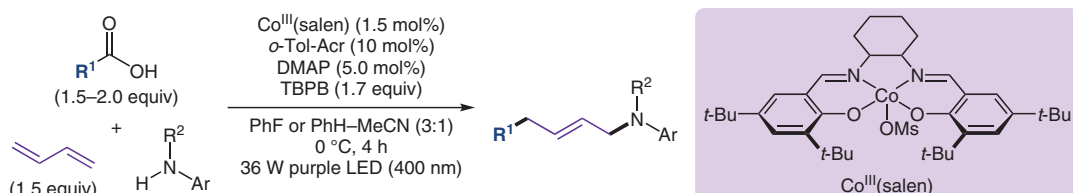


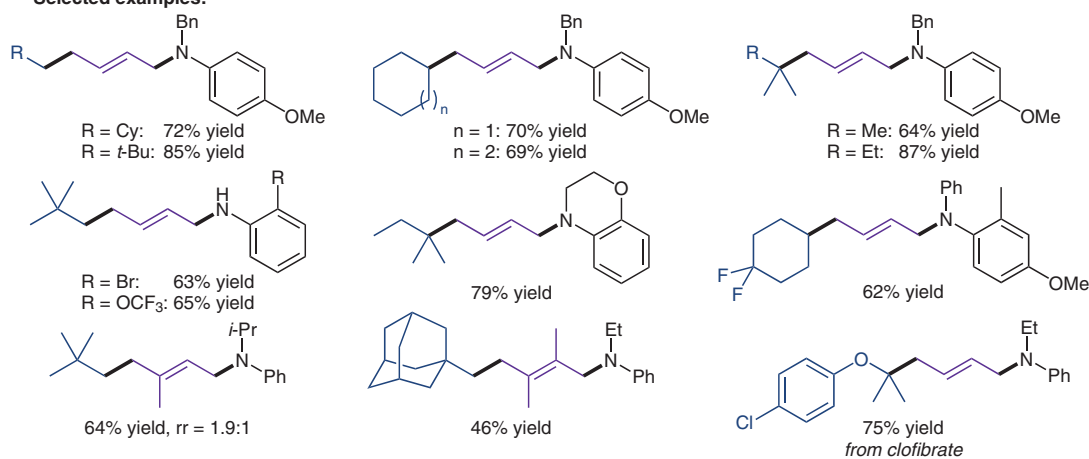
K. ZHUANG, G. C. HAUG, Y. WANG, S. YIN, H. SUN, S. HUANG, R. TREVINO, K. SHEN, Y. SUN, C. HUANG, B. QIN, Y. LIU, M. CHENG, O. V. LARIONOV*, S. JIN* (UNIVERSITY OF TEXAS AT SAN ANTONIO, USA AND SHENYANG PHARMACEUTICAL UNIVERSITY, P. R. OF CHINA)

Cobalt-Catalyzed Carbon–Heteroatom Transfer Enables Regioselective Tricomponent 1,4-Carboamination
J. Am. Chem. Soc. **2024**, *146*, 8508–8519, DOI: 10.1021/jacs.3c14828.

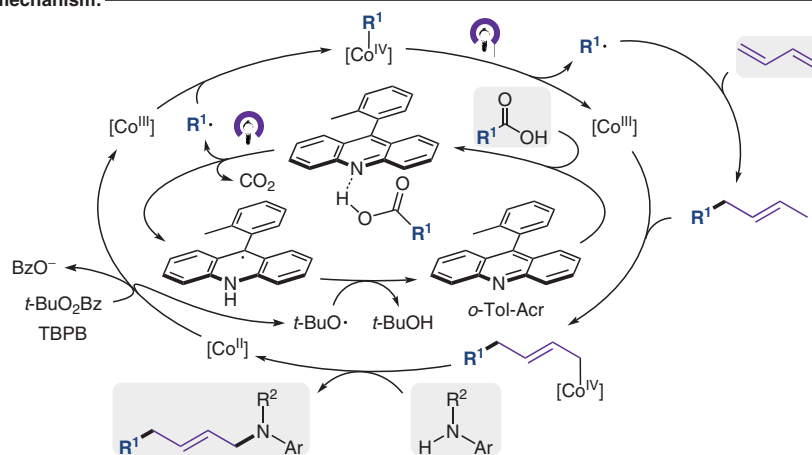
Making Allylamines by 1,4-Carboamination of 1,3-Dienes under Dual Cobalt and Acridine Catalysis



Selected examples:



Proposed mechanism:



Significance: Merging cobalt and acridine photoredox catalysis enables the decarboxylative coupling of carboxylic acids with 1,3-dienes and aniline derivatives to access aromatic allylic amines.

Comment: This protocol features a broad substrate scope, as also demonstrated by the modification of complex molecules. The reaction can be performed under batch or continuous-flow conditions.

SYNFACTS Contributors: Martin Oestreich, Hendrik F. T. Klare, Phillip Pommerening
 Synfacts 2024, 20(06), 0595 Published online: 14.05.2024
 DOI: 10.1055/s-0043-1773281; Reg-No.: M06624SF

© 2024, Thieme. All rights reserved.
 Georg Thieme Verlag KG, Rüdigerstraße 14, 70469 Stuttgart, Germany

Category

Metals in Synthesis

Key words

allylamines

carboamination

cobalt catalysis

dienes

photoredox catalysis

Synfact
of the
Month

This document was downloaded for personal use only. Unauthorized distribution is strictly prohibited.