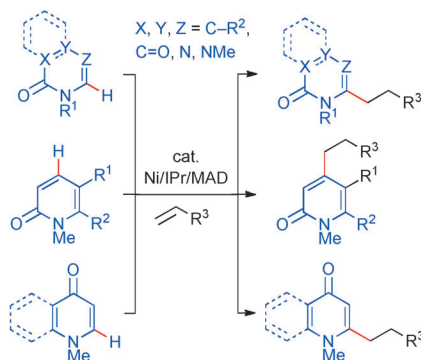


C–H Activation

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Alkylation of Pyridone Derivatives By
Nickel/Lewis Acid Catalysis



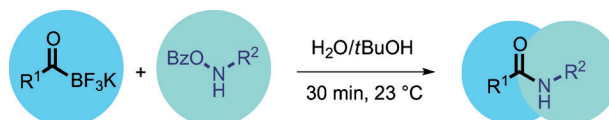
MAD as an additive: The $[\text{Ni}(\text{cod})_2]$, (2,6- $\text{tBu}_2\text{-4-MeC}_6\text{H}_2\text{O})_2\text{AlMe}$ (MAD), and N-heterocyclic carbene (NHC) catalytic system effected a highly regioselective alkylation of pyridone derivatives (see scheme). Substituted pyridones and related heterocycles react with both terminal and internal alkenes to selectively give a range of nitrogen-containing heterocycles with linear alkyl substituents.

Amide Ligation

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Amide-Forming Ligation of
Acyltrifluoroborates and Hydroxylamines
in Water



Come together, right now: Acyltrifluoroborates and O-benzoyl hydroxylamines come together to form amides in water (see scheme). The ligations are complete within minutes at room temperature and

do not require any reagents or catalysts. The reaction has a broad substrate scope and tolerates unprotected functional groups.

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50 Years Ago ...

Angewandte Chemie International Edition was first published in 1962, the mother journal first in 1888. In this monthly flashback, we feature some of the articles that appeared 50 years ago. This look back can open our eyes, stimulate discussion, or even raise a smile.

Ferrocene was first reported over 60 years ago (see the forthcoming Essay by H. Werner, *Angew. Chem. Int. Ed.*, in press), and by 1962, the chemistry of π complexes of aromatic compounds with transition metals was sufficiently mature that a Review on the subject was written by K. Plesske, who discussed the aromatic substitution reactions that these systems could undergo. Organo-metallic chemistry was also the subject of a Communication by W. H. Stubbs and P. L. Paulson, the latter of whom originally synthesized ferrocene, who reported on cyclopentadienyl metal isonitriles of manganese, iron, and nickel.

Organic ring systems with adamantane-type structures were the subject of a Review and a Communication by H. Stetter. In the Review, ring systems such as oxa- and thia-adamantanes, as well as boric acid and metal complexes, were discussed, and results on the fragmentation of 3-bromoadamantane-1-carboxylic acid were reported in the Communication.

The smells of onions and garlic are known to come from sulfur-containing compounds. In a Review, A. I. Virtanen summarized some of the organic sulfur compounds that can be isolated from

onions and garlic, including the alkyl sulfide allicin from garlic, and the S-alkenyl-cysteine-S-oxide that is the precursor of the lachrymatory factor in onions. These active substances are formed only when the plant is crushed as the precursors and the enzymes that react with them are located in different cells.

[Read more in Issue 6/1962](#)