Amide-Directed Olefination of sp³ C–H Bonds

Significance: A highly efficient protocol for the direct olefination of sp³ C–H bonds was developed. In this reaction, strongly electron-deficient amides serve as directing groups. The method could be applied to a wide variety of substrates, including even cyclopropyl methylene C–H bonds and compounds containing α-hydrogen atoms.

Comment: The scope of the Mizoroki–Heck reaction has been considerably enlarged with this method. Now, not only sp² C–H bonds but also sp³ C–H bonds can be efficiently and selectively olefinated giving an easy and straightforward access to variously functionalized lactams.