

N-acylsaccharins: stable electrophilic amide-based acyl transfer reagents in Pd-catalyzed Suzuki-Miyaura coupling via N—C cleavage.

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The development of efficient catalytic methods for N—C bond cleavage in amides remains an important synthetic challenge. The first Pd-catalyzed Suzuki–Miyaura cross-coupling of *N*-acylsaccharins with boronic acids by selective N—C bond activation is reported. The reaction enables preparation of a variety of functionalized diaryl and alkyl-aryl ketones with broad functional group tolerance and in good to excellent yields. Of general interest, *N*-acylsaccharins serve as new, highly reactive, bench-stable, economical, amide-based, electrophilic acyl transfer reagents via acyl-metal intermediates. Mechanistic studies strongly support the amide N—C(O) bond twist as the enabling feature of *N*-acylsaccharins in the N—C bond cleavage.

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<https://www.acs.org/content/acs/en.html>

