Palladium-Catalyzed Oxidative Arylation of ortho-Phenylcarbamates with Arenes

Significance: A highly useful method for the oxidative palladium-catalyzed coupling of simple arenes and ortho-phenylcarbamates was developed. The reaction proceeds via double C–H bond functionalization with high regioselectivities including electron-rich, -neutral, and -deficient arenes as substrates.

Comment: This novel coupling method enables a most straightforward access to biaryls form simple arenes solely via C–H functionalization. Inexpensive and environmentally benign sodium persulfate (Na$_2$S$_2$O$_8$) is used as oxidant. The mechanism proposed for this reaction is supported by the X-ray structure of the palladacycle P.