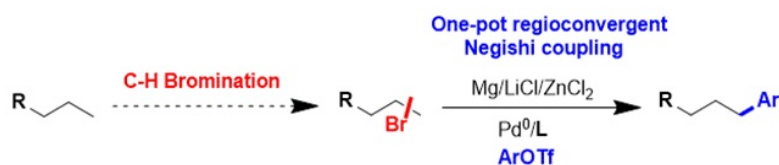


**Terminal-selective arylation of alkyl chains by regioconvergent Negishi coupling**K. ZHANG<sup>1</sup>, S. DUPUY<sup>1</sup>, A. GOUTIERRE<sup>1</sup>, O. BAUDOIN<sup>1\*</sup><sup>1</sup>University of Basel

Palladium-catalyzed C(sp<sup>2</sup>)-C(sp<sup>3</sup>) cross-couplings are particularly valuable tools in synthetic chemistry and hence a great deal of interest has emerged in this area.<sup>[1]</sup> Recently, our group has developed a new cross-coupling strategy based on the migration of an organopalladium species along an alkyl chain.<sup>[2]</sup> Through experimental and theoretical mechanistic studies, we have shown that this migration occurs through a beta-H elimination/rotation/insertion sequence.<sup>[3]</sup>

In this work, we have extended this migrative-coupling to simple and commercially available alkyl bromides. Under practical Barbier-type conditions involving magnesium insertion and transmetalation with ZnCl<sub>2</sub>, a series of linear arylated products could be obtained in a regioconvergent manner with good to excellent linear/branched selectivities, thanks to the use of a suitable phosphine ligand. Moreover, this strategy could be coupled to a non-selective radical bromination process, which allowed the terminal-selective functionalization of simple alkanes in just two steps.<sup>[4]</sup>



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