Enantioselective α-Arylation of O-Carbamates via Sparteine-Mediated Lithiation and Negishi Cross-coupling

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The enantioselective α -arylation of protected aliphatic alcohols is described. Hoppe's technology allows to perform the enantioselective α -lithiation in presence of sparteine. [1] After Li-Zn transmetalation and Negishi cross-coupling, highly enantioenriched benzylic alcohols are accessed. The method is compatible with a wide range of (hetero)aryl bromides and aliphatic alcohols.

Application of Aggarwal's lithiation-borylation sequence [2] provides a short and divergent access to a variety of enantioenriched secondary and tertiary benzylic alcohols. [3]

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- [3] Royal, T.; Baumgartner, Y.; Baudoin, O. Org. Lett. 2017, 19, 166-169.