STEREOSELECTIVE ACID-CATALYZED C(sp^3)-C(sp^3) BOND FORMATION IN THE INTRAMOLECULAR SYNTHESIS OF cis-1,2-DIARYL CYCLOPROPANES

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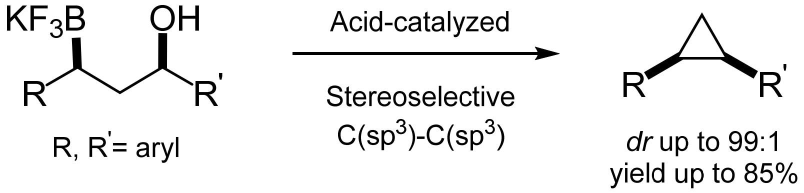
In recent years, growing demand from the Pharmaceutical Industry towards sp^3-enriched molecules has urged synthetic chemists to develop novel stereoselective C(sp^3)-C(sp^3) bond forming techniques [1]. Among the successfully utilized substances, organoborons are a particularly attractive class of reagents, since they are widely available and possess broad reactivity profile. Yet, a stereoselective traceless sp^3-sp^3 coupling reaction between an organoboron species and an appropriate coupling partner remains an unsolved transformation [2].

Herein, we present our results on the acid-catalyzed transformation of potassium *syn*-1,3-trifluoroborate alcohols to yield *cis*-1,2-diaryl cyclopropanes with high degree of stereocontrol in a traceless sp^3-sp^3 coupling reaction.



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