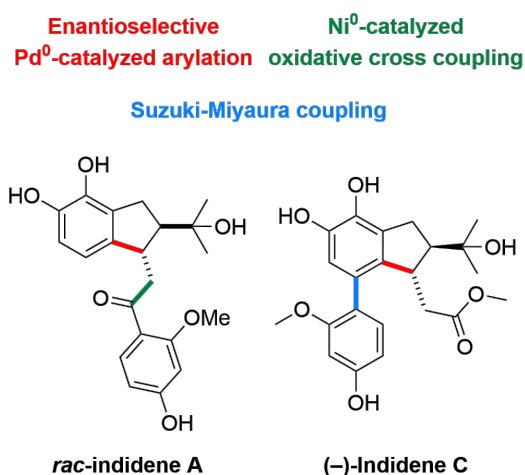


Methylene C(sp³)-H activation enables stereoselective synthesis of Indidene natural products

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Recently developed C-H activation methodologies have enabled concise and efficient total syntheses of various bioactive natural products¹. In this context, Pd⁰-catalyzed C-H activation has emerged as a method of choice for construction of cyclopentane rings of various complexity². We report our investigations towards racemic and enantioselective synthesis of Indidenes A and C, polyketides isolated from bark of *S. indicus*, as well as other indidene congeners. The construction of the indane scaffold is enabled by implementation of a Pd⁰-catalyzed methylene C-H activation³, which sets the first stereocenter. The installation of the side chain is achieved by a Ni⁰-catalyzed oxidative cross-coupling⁴ in the case of Indidene A, while Suzuki coupling facilitated formation of a biphenyl system in Indidene C.



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