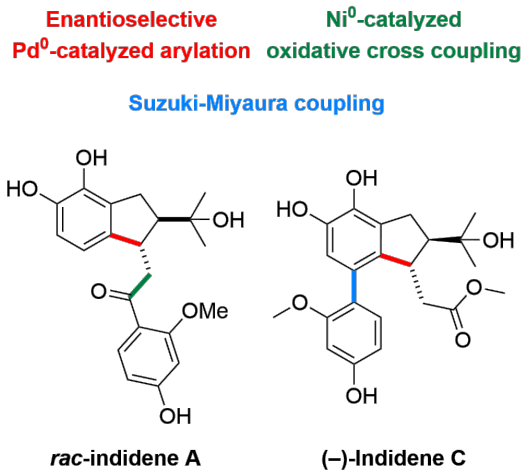
# Methylene C($sp^3$)–H activation enables stereoselective synthesis of Indidene natural products

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Recently developed C–H activation methodologies have enabled concise and efficient total syntheses of various bioactive natural products[1]. In this context, $Pd^0$-catalyzed C–H activation has emerged as a method of choice for construction of cyclopentane rings of various complexity[2]. 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 $Pd^0$-catalyzed methylene C–H activation[3], which sets the first stereocenter. The installation of the side chain is achieved by a $Ni^0$-catalyzed oxidative cross-coupling[4] in the case of Indidene A, while Suzuki coupling facilitated formation of a biphenyl system in Indidene C.




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