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EXPLORING THE REACTIVITY OF C(sp2)-H ACTIVATED AMINO ACID COBALT COMPLEXES: A FACILE ROUTE TOWARDS INDOLES

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In the last few decades transition metal-catalyzed direct C-H bond functionalization has served as a valuable tool for the construction of complex molecules from more simple starting materials, mainly due to its atom- and step-economical nature. Nowadays, the field of third row transition metal catalyzed C-H functionalization is being extensively studied as a cheaper and attractive alternative to noble metal catalysts.
Our current work is dedicated to the development of cobalt-catalyzed picolinamide-directed C-H bond functionalization of amino acid derivatives. Starting from α,β-unsaturated amino acids 1 we were able to synthesize different C-H activated Co(III) complexes 2 in very good yields. Moreover, using N-fluorobenzenesulfonimide, indole 3 derivatives can be obtained.

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