

Amide Directed Intramolecular Co(III)-Catalyzed C-H Hydroarylation of Alkenes for the Synthesis of Dihydrobenzofurans with a quaternary center

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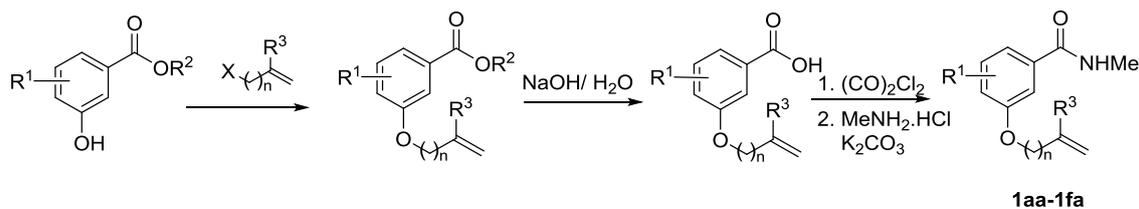
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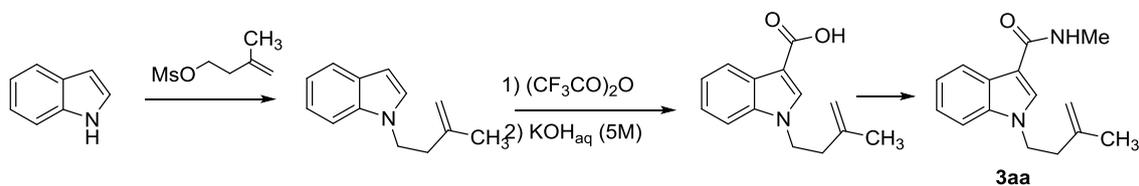
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| 1. Synthesis of substrates 1aa-1fa, 3aa | S2 |
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1. Synthesis of substrates 1aa-1fa, 3aa

Substrates **1aa**,¹ **1ab**, **1ad-1ag**, **1ai**, **1ak**,² **1ba**, **1da**, **1ea**, **5aa** and **3aa**¹ were prepared according to literature procedures, and **1ac**, **1ah**, **1aj**, **1al**, **1am**, **1an**, **1bf**, **1bg**, **1bj**, **1ca**, **1dg**, **1fa** using analogous synthetic routes (Schemes S1 and S2)



Scheme S1. Synthesis of **1aa-1fa**.



Scheme S2. Synthesis of **3aa**.

¹ Davis, T. A.; Hyster, T. K.; Rovis, T. Rhodium(III)-Catalyzed Intramolecular Hydroarylation, Amidoarylation, and Heck-type Reaction: Three Distinct Pathways Determined by an Amide Directing Group. *Angew. Chem. Int. Ed.* **2013**, *52*, 14181-14185.

² Rit, R. K.; Ghosh, K.; Mandal, R.; Sahoo, A. K. Ruthenium-Catalyzed Intramolecular Hydroarylation of Arenes and Mechanistic Study: Synthesis of Dihydrobenzofurans, Indolines, and Chromans. *J. Org. Chem.* **2016**, *81*, 8552-8560.

2. Copies of ^1H and ^{13}C spectra of compounds 1-6

