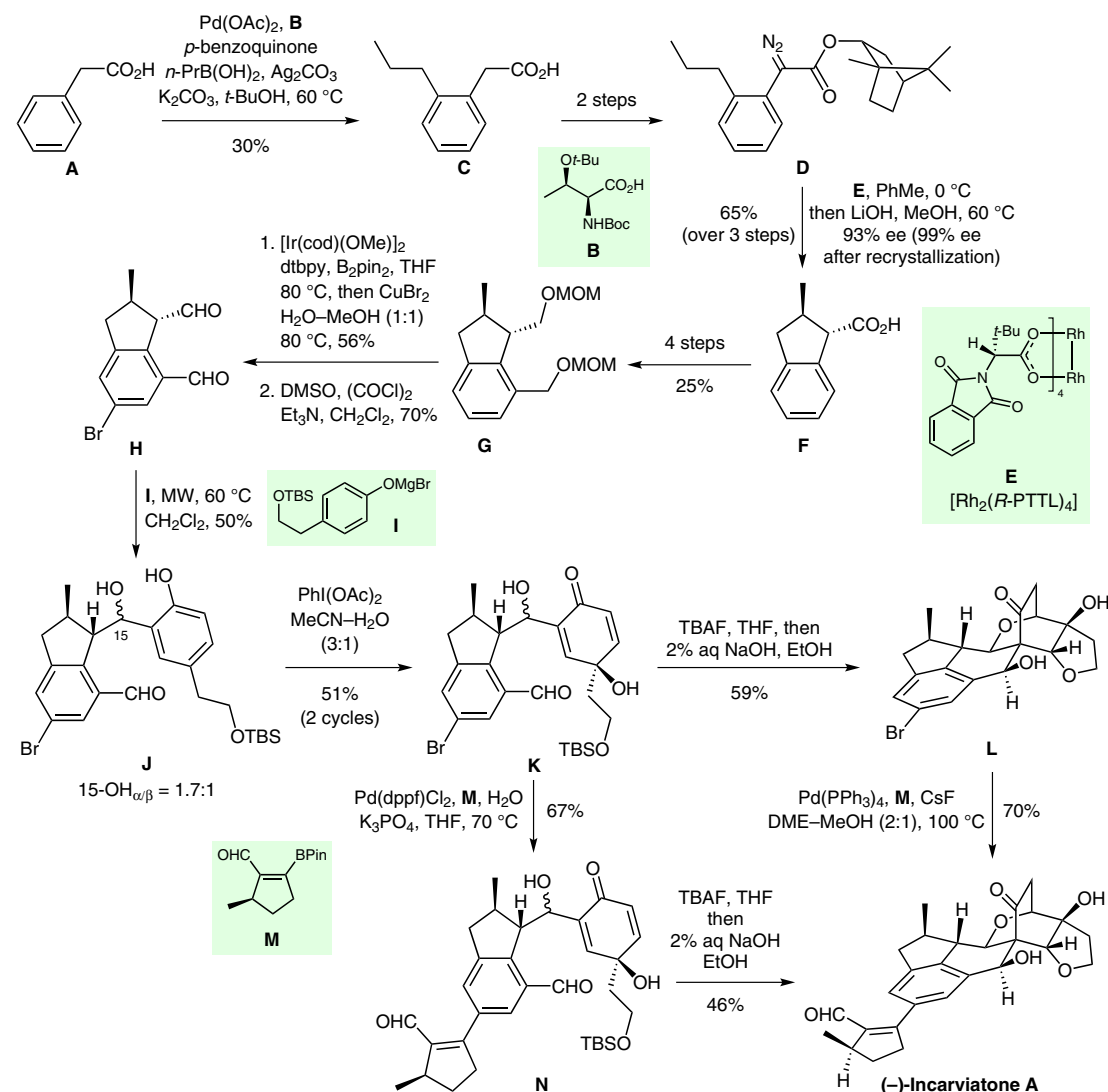


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Enantioselective Total Synthesis of (–)-Incarviatone A  
*J. Am. Chem. Soc.* **2015**, *137*, 11946–11949.

## Synthesis of (–)-Incarviatone A



**Significance:** The natural product hybrid (–)-incarviatone A displays considerable potential for the treatment of depression and neurological disorders. It also features a complex polycyclic core structure with eight contiguous stereogenic centers. In this work, the authors report the first total synthesis relying on a striking biomimetic cascade reaction.

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Synfacts 2015, 11(12), 1231 Published online: 17.11.2015  
DOI: 10.1055/s-0035-1560838; Reg-No.: C06615SF

**Comment:** The synthesis commenced with *ortho*-C–H alkylation of **A**. Thereafter, *trans*-indane acid **F** was obtained by a chiral auxiliary mediated C–H insertion with diazo compound **D**. Phenolic aldol condensation between **H** and **I** and subsequent dearomatization set the stage for a biomimetic cascade that culminated in the total synthesis of (–)-incarviatone A.

Category

Synthesis of Natural Products and Potential Drugs

Key words

(–)-incarviatone A

C–H bond functionalization

biomimetic cascade

chiral auxiliary

aldol condensation

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