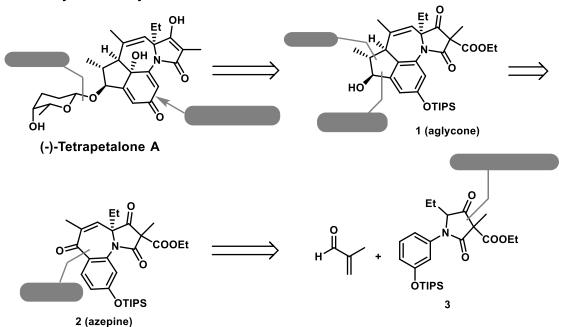
Total Syntheses of (-)-Tetrapetalone A

Heemal H. Dhanjee, Yutaka Kobayashi, Jonas F. Buergler, Travis C. McMahon, Matthew W. Haley, Jennifer M. Howell, Koichi Fujiwara, and John L. Wood*

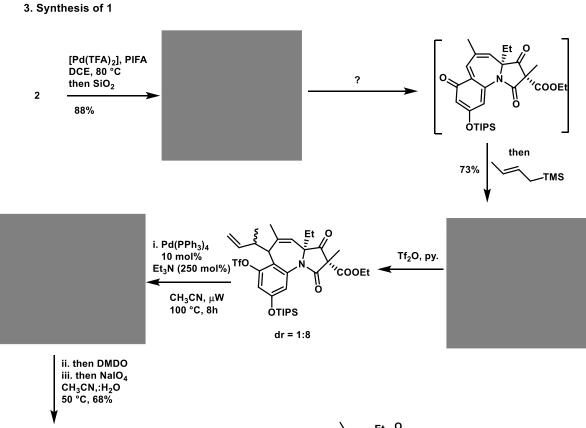
- a) Isolated from Streptomyces sp. in 2003 by Hirota and co-workers.
- b) Hong (2009), Sarpong (2010), Porco (2014), Pettus (2014) and Frontier (2014) groups also worked on Tetrapetalones syntheses.

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1. Retrosynthetic analysis

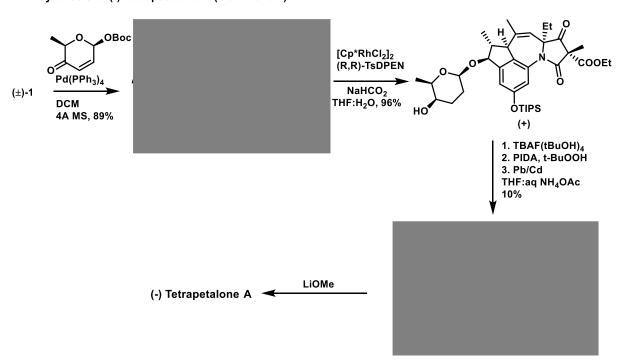


2. Synthesis of 3 and 2



12% overall yield, 12 steps based on 2, 2.8:1 dr of 2

4. Synthesis of (-) Tetrapetalone A (If time allow)

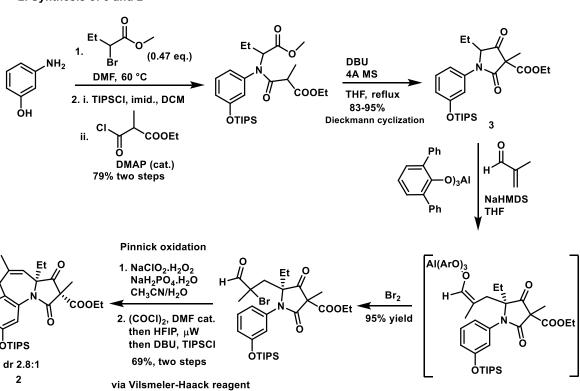


Solution

1. Retrosynthetic analysis

(-)-Tetrapetalone A

2. Synthesis of 3 and 2



intermediate

3. Synthesis of 1

4. Synthesis of (-) Tetrapetalone A (If time allow)