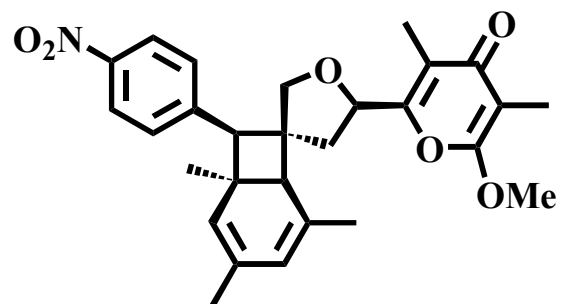
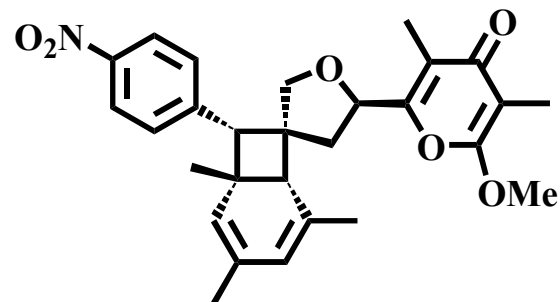


Total Synthesis of (-)-SNF4435 C and (+)-SNF 4435 D



SNF 4435 C



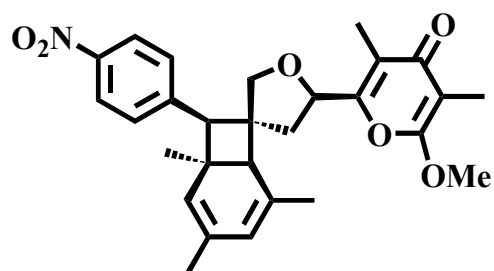
SNF 4435 D

Christopher M. Beaudry and Dirk Trauner, *Org. Lett.*, **2005**, 7, 4475-4477.

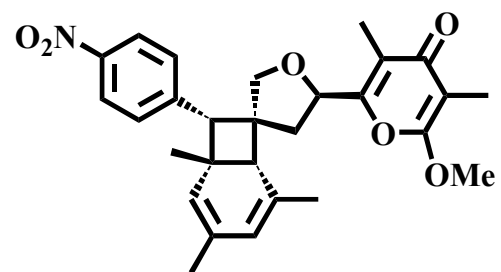
Background

- Isolated from a culture broth of *Streptomyces spectabilis*
- Block induced B-cell proliferation versus induced T-cell proliferation
- Potent immunosuppressive

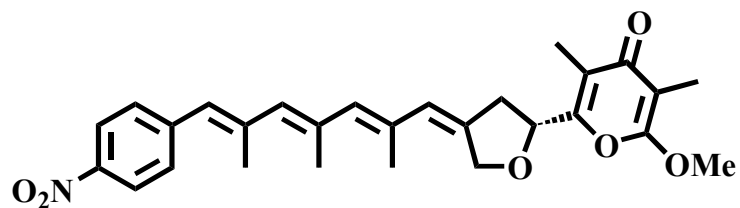
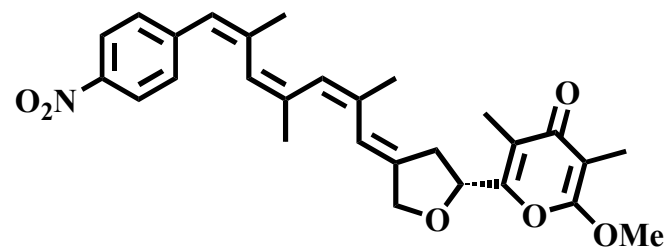
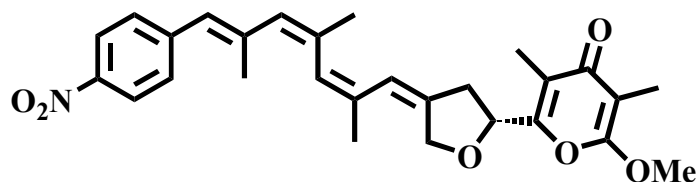
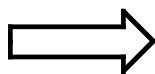
Proposed Biosynthetic Pathway



SNF 4435 C



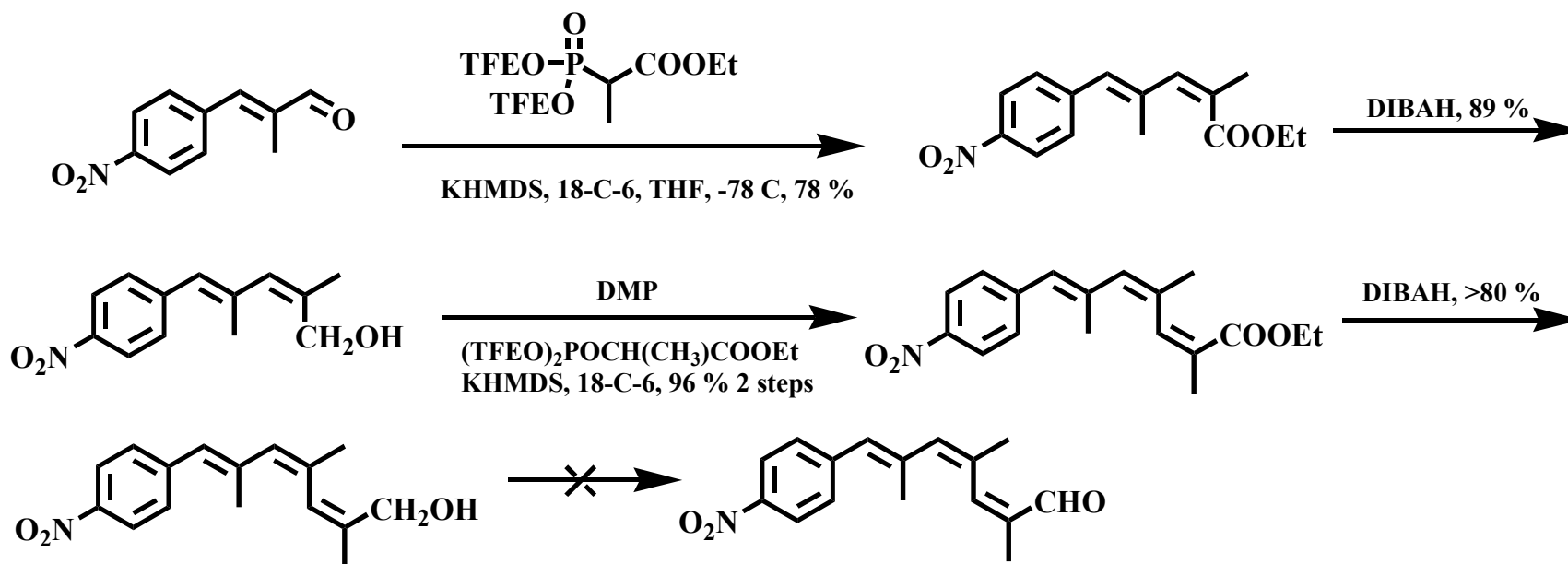
SNF 4435 D



Spectinabilin

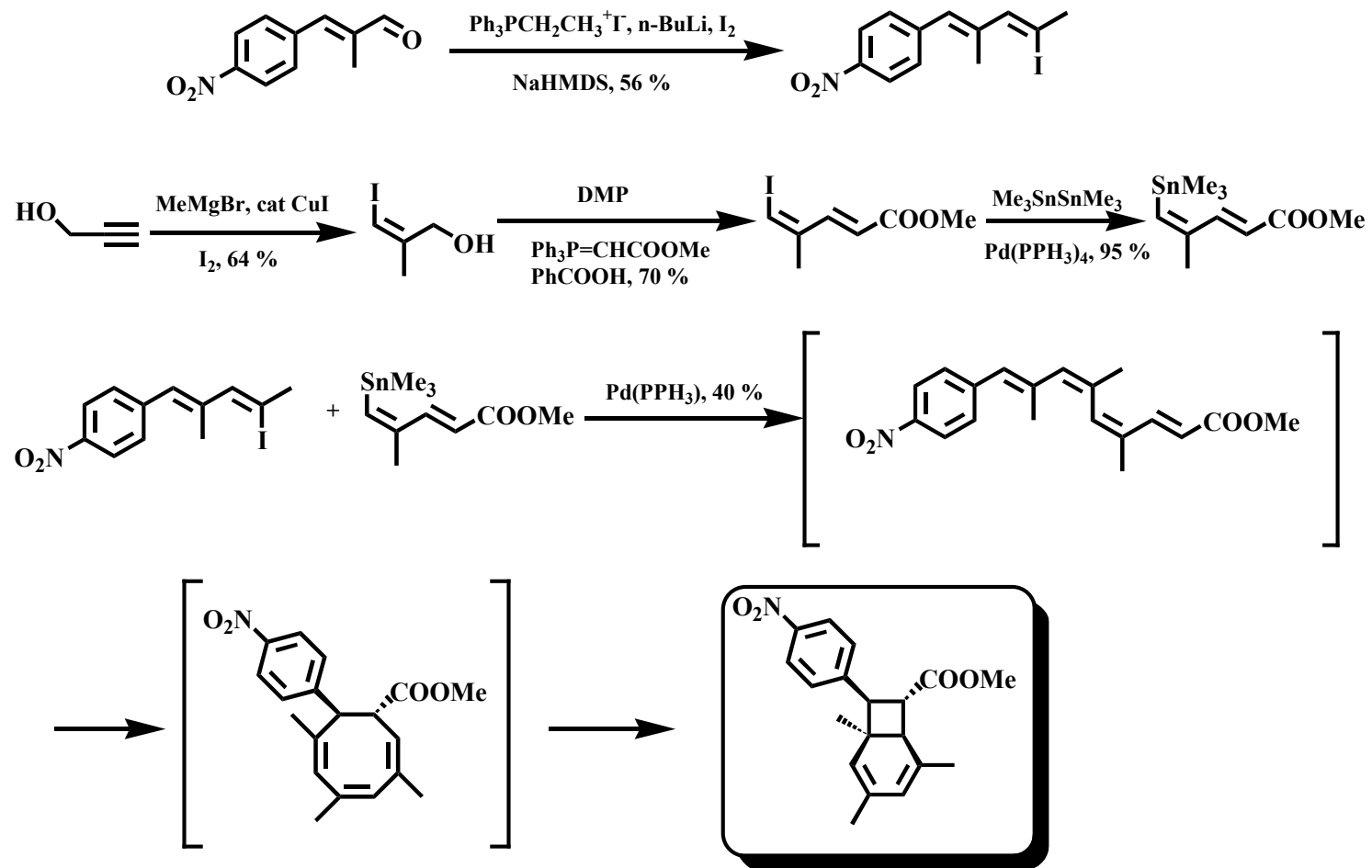
C.M. Beaudry and D. Trauner, *Org. Lett.*, **2002**, 4, 2221-2224

Synthetic Studies toward SNF 4435 C and SNF 4435 D



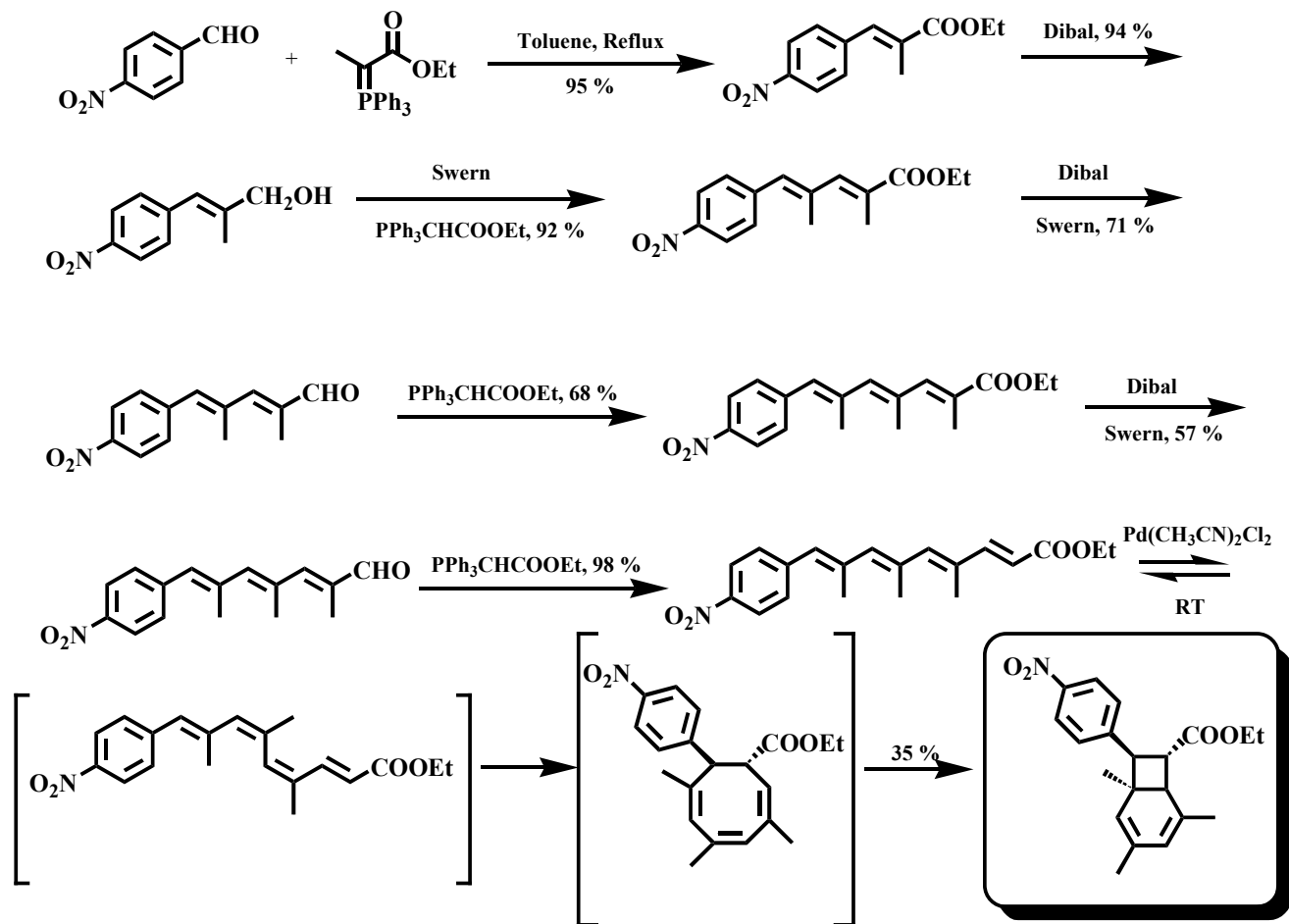
C.M. Beaudry and D. Trauner, *Org. Lett.*, **2002**, 4, 2221-2224

Synthetic Studies toward SNF 4435 C and SNF 4435 D



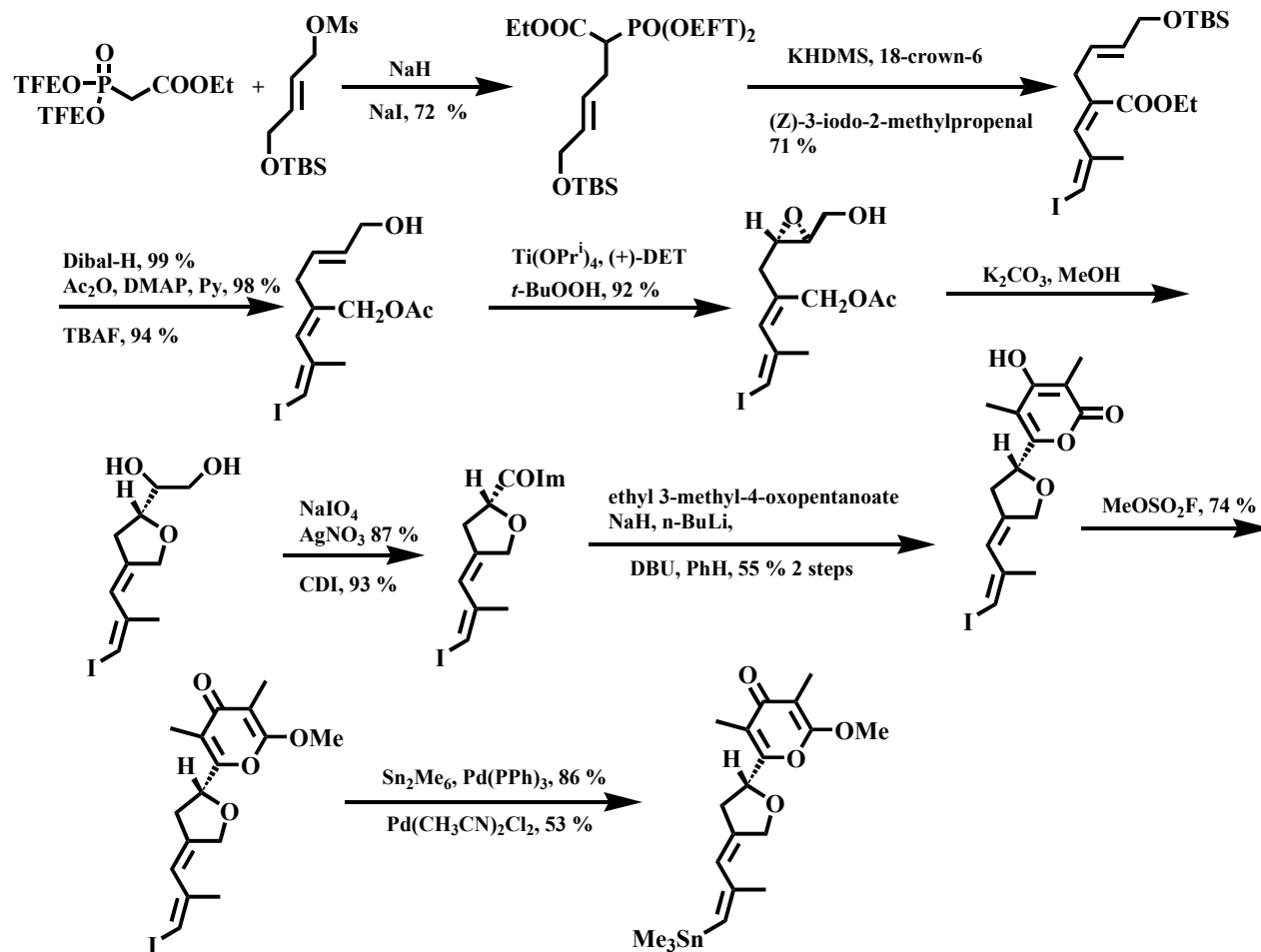
C.M. Beaudry and D. Trauner, *Org. Lett.*, **2002**, 4, 2221-2224

Studies on the Biomimetic Synthesis of SNF 4435 C and D

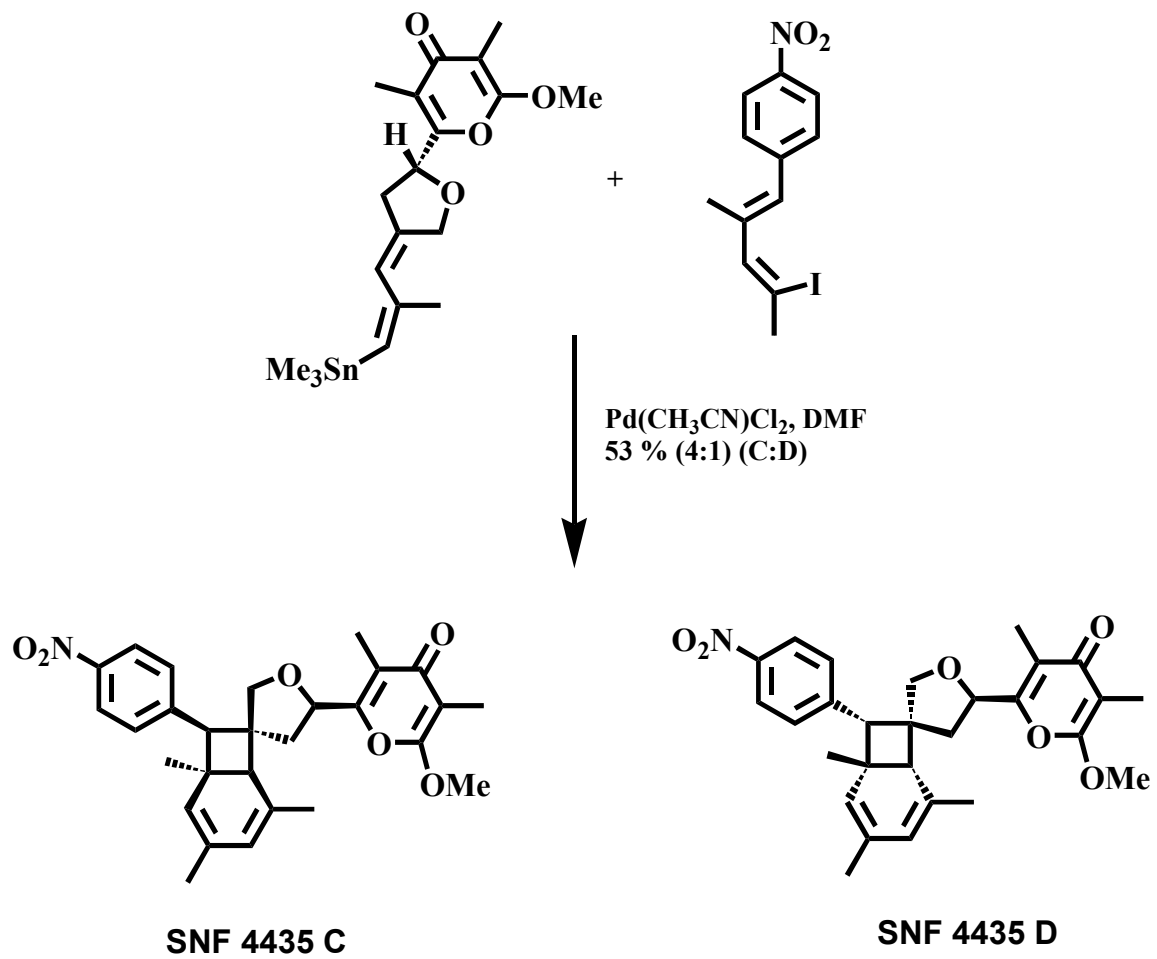


J.E. Moses, J. E. Baldwin, R. Marquez and R. M. Adlington, *Org. Lett.*, **2002**, 4, 3731-3734.

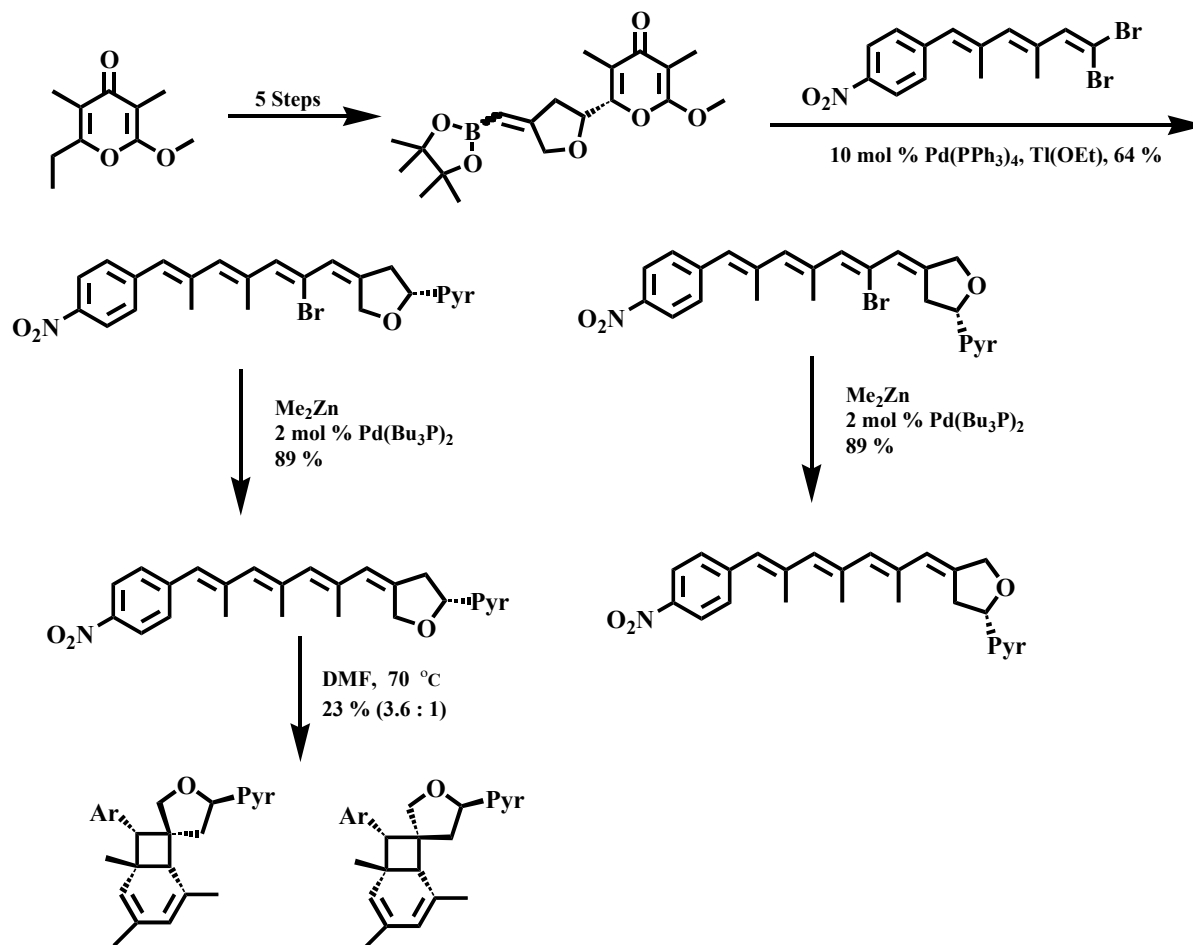
The Total Synthesis of (-)-SNF 4435 C and (+)-SNF4435D



K. A. Parker and Y. Lim, *J. Am. Chem. Soc.*, **2004**, 126, 15968-15969.

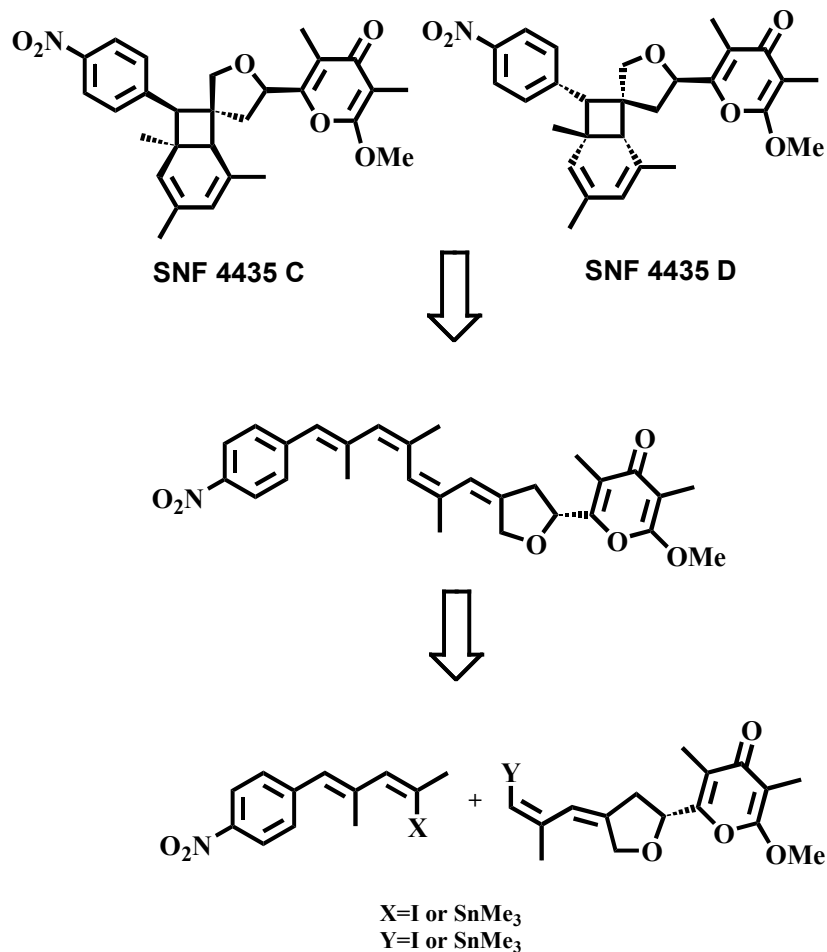


The Total Synthesis of Spectinabilin and Its Biomimetic Conversion to SNF 4435 C and SNF4435D



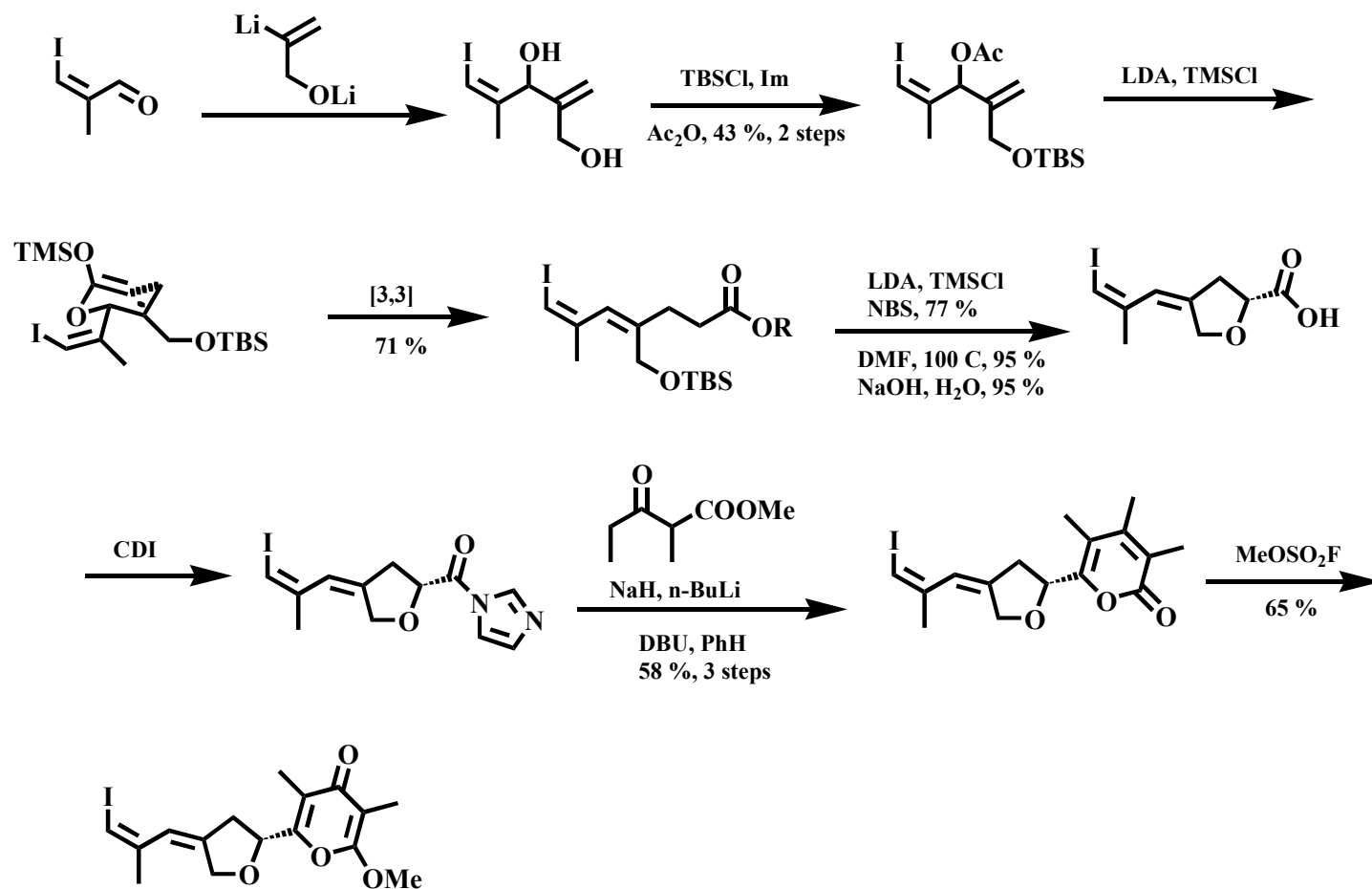
M.F. Jacobsen, J.E. Moses, R.M. Adlington J. E. Baldwin, *Org. Lett.*, **2005**, *7*, 2473-2476.

Total Synthesis of (-)-SNF4435 C and (+)-SNF 4435 D Retrosynthetic Analysis

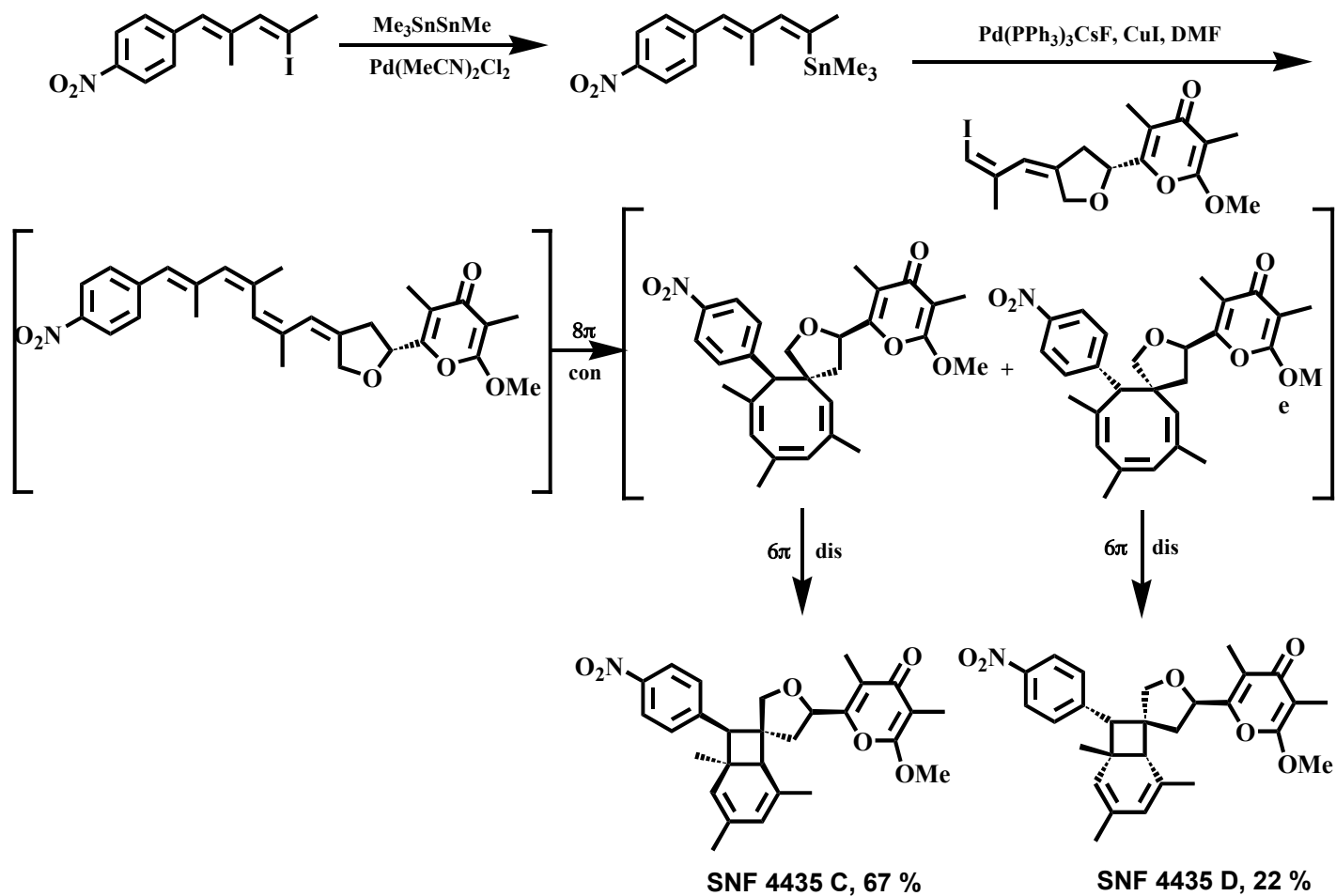


Christopher M. Beaudry and Dirk Trauner, *Org. Lett.*, **2005**, 7, 4475-4477.

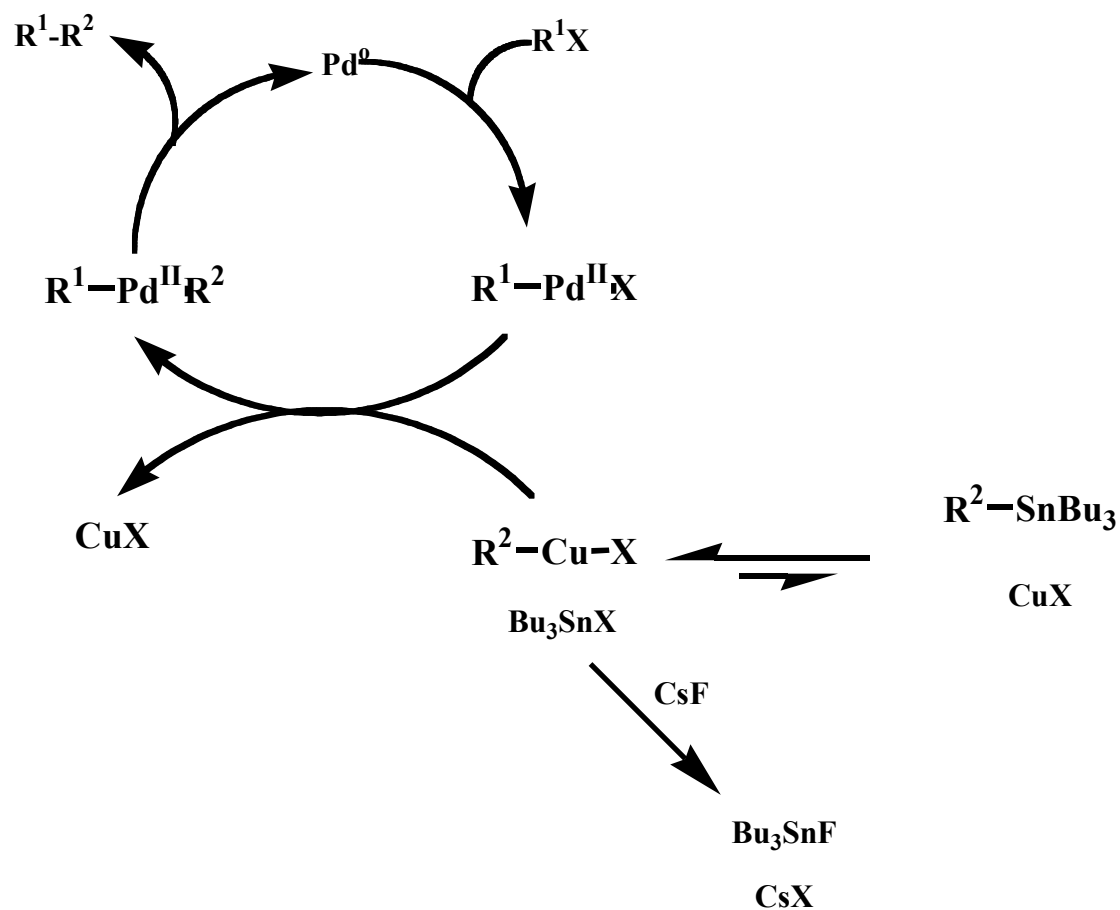
Synthesis of Diene



Stille Coupling and Electrocyclization



Stille Coupling Made Easier-The Synergic Effect of Copper(I) Salts and the Fluoride ion



S.P.H. Mee, V. Lee and J.E. Baldwin, *Angew. Chem. Int. Ed.*, **2004**, 43, 1132-1136

Key Points

Stereo and regioselective [3,3] sigmatropic rearrangement

High yielding Stille coupling

8 π -6 π electrocyclization