T. G. BACK,* J. E. WULFF (UNIVERSITY OF CALGARY, CANADA)

A Stereodivergent Synthesis of Virantmycin by an Enzyme-Mediated Diester Desymmetrization and a Highly Hindered Aryl Amination

Angew. Chem. Int. Ed. **2004**, *43*, 6493-6496.

A Synthesis of Virantmycin via Enzyme-Mediated Diester Desymmetrization

Significance: (-)-Virantmycin was isolated from *Streptomyces nitrosporeus*. It has antifungal activity and it inhibits RNA and DNA viruses.

Comment: Key steps to the target molecule were (a) the pig liver esterase-mediated desymmetrization of the malonate **A** (89%, ee = 95%); (b) use of a Curtius rearrangement (**B** to **C**) to create the α -quaternary formamide; (c) a rare Pd-catalyzed intramolecular aryl amination (**C** to **D**) of an amine derivative with an α -quaternary center. The Keay ligand **L** was crucial to the success of the aryl amination.

SYNFACTS Contributors: Philip Kocienski

Synfacts 2005, 0, 0002-0002

DOI: 10.1055/s-2005-865340; Reg-No.: K00105SF

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