S. K. RAY, P. K. SINGH, N. MOLLETI, V. K. SINGH* (INDIAN INSTITUTE OF TECHNOLOGY KANPUR AND INDIAN INSTITUTE OF SCIENCE EDUCATION AND RESEARCH BHOPAL, INDIA)

Enantioselective Synthesis of Coumarin Derivatives by PYBOX–DIPH–Zn(II) Complex Catalyzed Michael Reaction
J. Org. Chem. **2012**, *77*, 8802–8808.

Zinc-Catalyzed Synthesis of Coumarin Derivatives by Asymmetric Michael Reaction

Selected examples:

Significance: Coumarin derivatives are a broad class of biologically interesting molecules. The zinc-catalyzed system presented provides an efficient access to the direct precursors of such compounds with excellent yield (up to 99%) and enantioselectivity (up to 97%).

Comment: The authors report a PYBOX–DIPH–Zn(II) catalyzed asymmetric Michael reaction and its successful application in the synthesis of coumarin derivatives. This method can tolerate a wide range of cyclic 1,3-dicarbonyl compounds. The resulting products can be easily converted into bioactive molecules such as warfarin and acenocoumarol without loss of enantiopurity.

SYNFACTS Contributors: Hisashi Yamamoto, Lan Luo
Synfacts 2013, 9(1), 0076 Published online: 17.12.2012
DOI: 10.1055/s-0032-1317844; **Reg-No.:** H16312SF

2013 © THIEME STUTTGART • NEW YORK