Category

Synthesis of Natural Products and Drugs

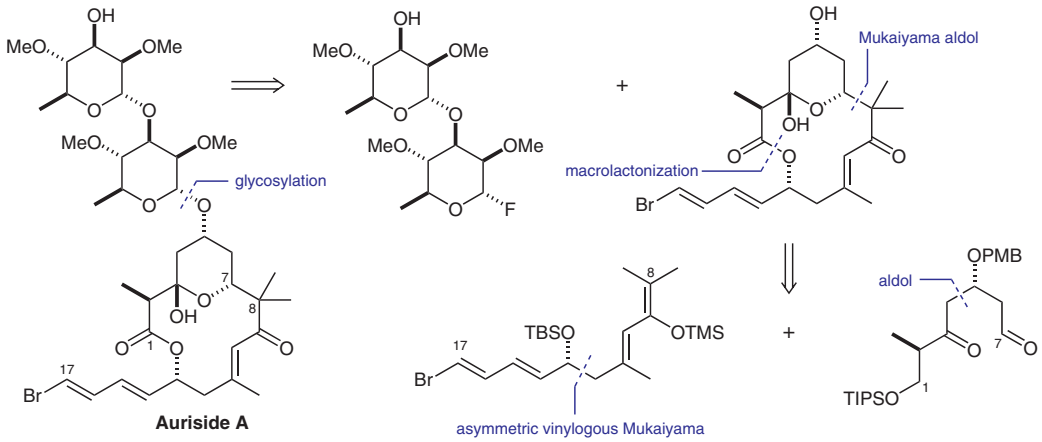
Key Words

glycosylation
asymmetric vinylogous Mukaiyama aldol

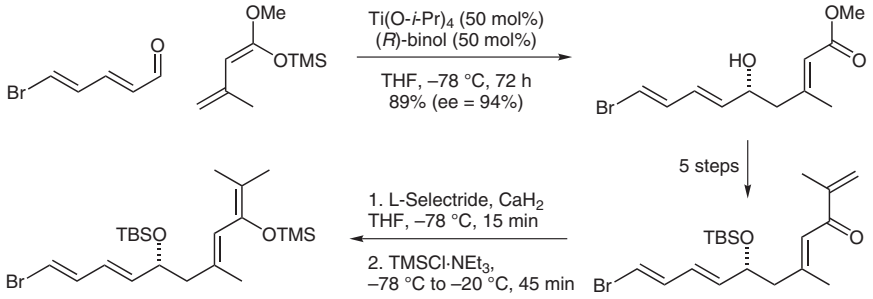
I. PATERSON,* G. J. FLORENCE, A. C. HEIMANN, A. C. MACKAY (CAMBRIDGE UNIVERSITY, UK)

Stereocontrolled Total Synthesis of (–)-Aurisides A and B
Angew. Chem. Int. Ed. **2005**, *44*, 1130-1133.

Total Synthesis of (–)-Aurisides A and B



Synthesis of the C8–C17 fragment via an asymmetric vinylogous Mukaiyama aldol reaction:



Significance: The first synthesis of Aurisides A and B is reported. The Aurisides are isolated from the sea hare *Dolabella auricularia*. They are cytotoxic towards HeLa S_3 cervical cancer cell lines with IC_{50} values of 0.17 and 1.2 μm mL^{-1}, respectively.

Comment: Variations on the aldol reaction were used to synthesize and link the C1–C7 and C8–C17 fragments of the aglycone. The asymmetric vinylogous Mukaiyama-directed aldol reaction mediated by an (*R*)-binol-Ti(O-*i*-Pr)$_4$ species (89%, ee = 94%) is noteworthy.

SYNFACTS Contributors: Philip Kocienski
Synfacts 2005, 0, 0006-0006
DOI: 10.1055/s-2005-865342; **Reg-No.:** K00305SF