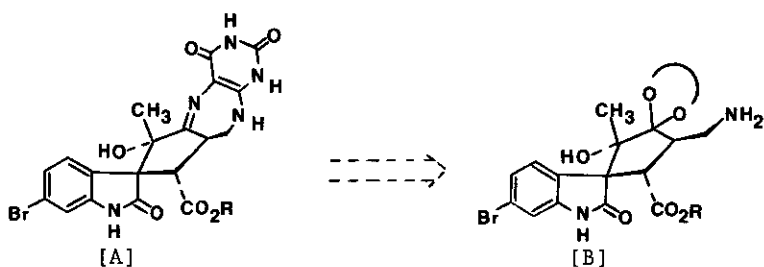


THE SYNTHESIS OF SPIRO-(CYCLOPENTANE-1,3'-OXINDOL)-DERIVATIVES

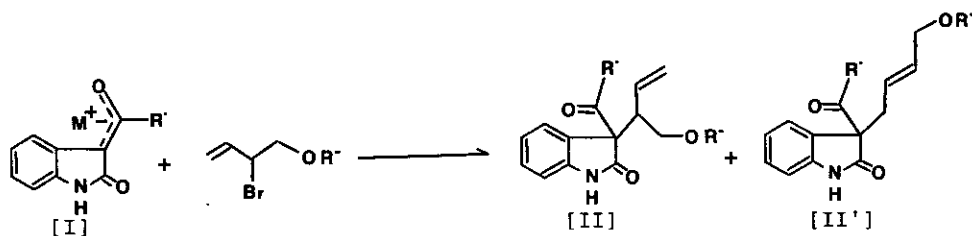
Takuo Kosuge, Hitoshi Ishida and Yoshihiko Katuyama

Shizuoka College of Pharmacy, 2-2-1 Oshika Shizuoka 422 Japan

During the course of our study on the total synthesis of neosurugatoxin



[A] (R=O- β -D-xylopyranosyl-(1,5)-myoinositol) we found that the reaction of conjugate ions of 3-acyloxindole with 2-bromo-3-butene-1-ol gives a mixture of Sn2 and Sn2' substitution products ([II] and [II']) quantitatively. In this reaction the Sn2 substitution product [II] is obtained in 50% yield.



On the utilization of spiro-(cyclopentane-1,3'-oxindol)-derivative [B] as the key precursor of [A] we assembled tricyclic compound [IV], which is possibly convertible to [B] (Br=H), from the Sn2 substitution product [II] using the new strategy via an intermolecular [3+2] cycloaddition.

