

Heterocycles, 55, 135-144 (2001).

Diastereoselective Ring-Expansion Reaction of Methanochromanone with Aldehydes: Formation of *trans*-Fused Tetrahydrofuro[2,3-*b*][1]benzopyranones and Their Isomerization

Yoshiaki Sugita(杉田義昭)*, Kazuyoshi Kawai(川井一良), and Ichiro Yokoe(横江一朗)

Faculty of Pharmaceutical Sciences, Josai University, Sakado, Saitama 350-0295

In the presence of SnCl_4 , 2,3-dimethoxycarbonylmethanochromanone was transformed into a zwitter-ion which easily reacted with aldehydes to give the *trans*-fused tetrahydrofuro[2,3-*b*][1]benzopyranones in good yields with high diastereoselectivity. *cis*-Fused furobenzopyranone derivatives were also obtained in good yields by isomerization of the *trans* isomers.

