

Abstract

The invention describes two technical methods for the preparation of heterocyclic seven-ring ketones by means of Dieckmann condensation avoiding the conventional dilution methods. In addition the otherwise conventional high excesses of base are distinctly lowered and the reaction times considerably shortened.

- 10 Firstly the 1,8-dicarboxylic ester is metered in the region of a nozzle into the reaction mixture pumped round a circulation system, secondly the 1,8-dicarboxylic ester is metered in at the top of a packed column and diluted along the column by means of the condensate of the reaction
15 mixture boiling under reflux in the column. The yield obtained by this procedure is 80-89% of theoretical.

The distinctly improved yields permit the synthesis of azelastine (INN) and flezelastine (INN) in increased
20 overall yield, with the final reaction to form the end product being carried out in water instead of in organic solvent. The reaction in water delivers yields of 70-90% of theoretical.

This Sheet Has Been Replaced

