1993 amines

amines (benzene compounds)

Q 0120 04 - 123 A Facile Approach to γ , δ -Unsaturated Amides. — γ -(Diethoxyphosphoryl)butyric acid (I) reacts with aldehydes such as (II) to give the lactones (III). These undergo cleavage reaction with 1-phenylethylamine (IV), forming the γ , δ - unsaturated amides (V). — (JANECKI, T.; Synth. Commun. 22 (1992) 14, 2063-2070; Inst. Org. Chem., Techn. Univ., 90-924 Lodz, Pol.; EN)

$$\begin{array}{c} \text{1. R-CHO (II), heptane, benzene} \\ \text{Et-O} \\ \text{II} \\ \text{Et-O} \\ \text{II} \\ \text{III} \\ \text{a R: -Me} \\ \text{b R: -Ph} \\ \end{array}$$

 \mathbf{v}