organo-phosphorus compounds, acyclic O,N,S derivatives

S 0081 35 - 197 New Feature of Friedel–Crafts Phosphonation of Anisoles: Unexpected in situ Methylphosphorylation Reaction. — Friedel–Crafts phosphonation of anisoles (I) follows a complex multistep pathway and leads, in dependence on the ratio of the reagents, to methylphosphonates (II) and (IV) or to a mixture of methylphosphoryl derivatives with methylphosphinates (V) as main compounds. This new unexpected in situ methylphosphorylation is of interest for the synthesis of other P-methyl-substituted compounds. — (BACCOLINI, GRAZIANO; BOGA, CARLA; Synlett (1999) 6, 822-824; Dip. Chim. Org. "A. Mangini", Univ. Bologna, I-40136 Bologna, Italy; EN)

$$I \qquad \qquad \begin{array}{c} \text{AlCl}_{3}/\text{PCl}_{3} \; (0.6:1) \\ \text{A)} \\ \text{II} \\ \end{array} \qquad \begin{array}{c} \text{a} \; \text{X:} \; -\text{H} \quad 70\% \\ \text{b} \; \text{X:} \; -\text{CI} \quad 55\% \\ \text{c} \; \text{X:} \; -\text{Br} \quad 50\% \\ \end{array}$$

A); neat, 70-80°C, [up to 15 h, N_2]