Organo-phosphorus compounds

S 0080

A New Approach to 1-Substituted-1,2-alkadiene-phosphonates. Part 3. Synthesis of 2-Keto-5-methyl-3,4-hexadienyl-3-phosphonate Dimethyl Esters. — The synthesis of different 1-keto-substituted allenephosphonate derivatives (VI) using the acetylene-allene rearrangement of α -keto substituted acetylenic alcohol (IV) is reported. — (ENCHEV*, D. D.; Phosphorus, Sulfur Silicon Relat. Elem. 180 (2005) 9, 2127-2130; Dep. Org. Chem., Fac. Chem., K. Preslavski Univ., BG-9700 Shoumen, Bulg.; Eng.) — C. Hettrich

III
$$\xrightarrow{\text{Jones ox.}}$$
 $\xrightarrow{\text{Me}}$ $\xrightarrow{\text{CI} - \text{P(O-R)}_2}$ $\xrightarrow{\text{CI} - \text{P(O-R)}_2}$ $\xrightarrow{\text{VI}}$ $\xrightarrow{\text{R-O}}$ $\xrightarrow{\text{R-O}}$ $\xrightarrow{\text{R-O}}$ $\xrightarrow{\text{Ne}}$ $\xrightarrow{\text{CI} - \text{P(O-R)}_2}$ $\xrightarrow{\text{VI}}$ $\xrightarrow{\text{VI}}$ $\xrightarrow{\text{VI}}$ $\xrightarrow{\text{R-S0}}$ $\xrightarrow{\text{R-B0}}$ $\xrightarrow{\text{R-B0}}$ $\xrightarrow{\text{R-Pr}}$ $\xrightarrow{\text{PR-S0}}$ $\xrightarrow{\text{R-Pr}}$ $\xrightarrow{\text{PR-S0}}$ $\xrightarrow{\text{R-Pr}}$ $\xrightarrow{\text{PR-S0}}$ $\xrightarrow{\text{R-Pr}}$ $\xrightarrow{\text{R-Pr}}$ $\xrightarrow{\text{PS-S0}}$ $\xrightarrow{\text{R-Pr}}$ $\xrightarrow{\text{R-Pr}}$ $\xrightarrow{\text{PS-S0}}$