

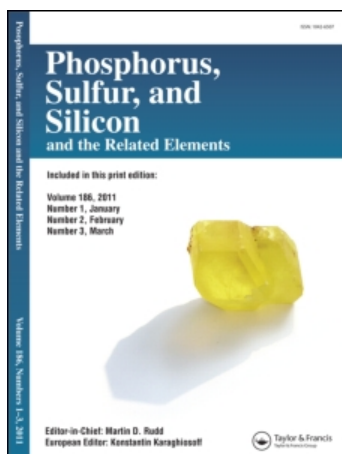
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Reactions of α -Hydroxyphosphonates under PTC Conditions

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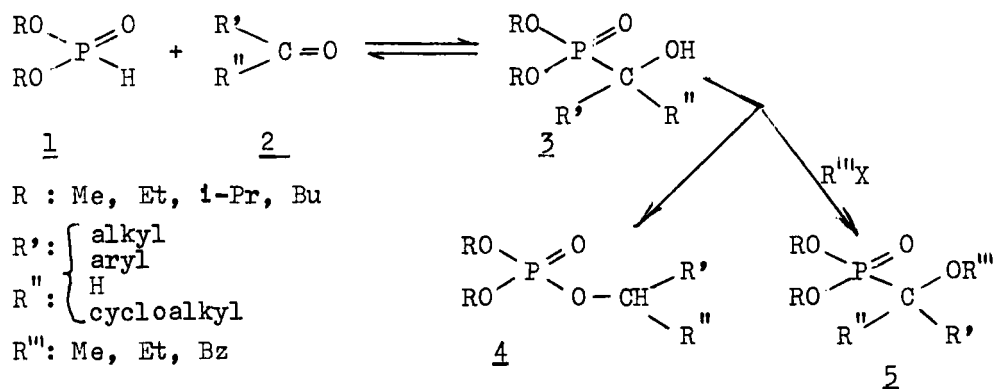
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Reactions of α -Hydroxyphosphonates under PTC Conditions

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We found, that dialkyl phosphite 1 and oxo-compound 2 in an equilibrium reaction give an adduct α -hydroxyphosphonate 3 under phase-transfer catalytic conditions [K_2CO_3 /TEBA/dichloroethane or aromatic solvents (solid-liquid PTC); 50% NaOH/TEBA/dichloroethane or benzene (liquid-liquid PTC)]. On the other hand 3 is transformed to phosphate 4 or to α -alkoxyphosphonate 5 in the presence of alkylating agent using PTC circumstances.



We studied the 1,2 C \rightarrow O phosphoryl migration (comp. 3 \rightarrow 4) in many examples. It is noted that preparation of 4 from the oxo-compound 2 and from phosphites 1 is not a usual route. Phosphates 4 could be obtained with high yields.

We synthesized numerous new α -alkoxyphosphonates 5 with this method which is the simplest way to prepare these type of comp.