THE UNUSUAL REACTION OF ALKYLATION OF DICARBOXYLATE PHOSPHABETAINES IN ALCOHOL MEDIA

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Earlier we showed that the reactions of alkylation of monocarboxylate betaines form stable phosphonium salts [1].

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\text{Ph}_3\text{P(CH}_2\text{nCOO} + \text{RI} \rightarrow \text{[Ph}_3\text{P(CH}_2\text{nCOOR][I]}
\]

Herein we report the alkylation of dicarboxylate phosphabetaines with methyl iodide in ethanol. Composition and structure of the formed phosphonium salts have been confirmed by elemental analysis, NMR and IR spectroscopy.

\[
\begin{align*}
\text{Ph} & \text{CH}_3\text{CH}_2\text{COO} \quad \text{+ CH}_3\text{I} \quad \text{R-OH} \quad \text{CH}_3\text{OH} \\
\text{Ph} & \text{CHCH}_2\text{COOH} \quad \text{R} \quad \text{CH}_3\text{CH}_2\text{COOR} \quad \text{R}' \\
\text{R} &= \text{C}_2\text{H}_5, \text{i-C}_3\text{H}_7, \text{C}_8\text{H}_{17}, \text{C}_{16}\text{H}_{33}; \\
\text{R}' &= \text{H}, \text{CH}_3, \text{C}_6\text{H}_5.
\end{align*}
\]

References:

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