2-PROPYL- AND 4-BUTADIENYL-S-FUNCTIONALLY SUBSTITUTED PHOSPHONIUM SALTS. UNUSUAL BEHAVIOUR OF 1,4-BIS(BUTA-1,3-DIENE)PHOSPHONIUM SALTS IN REACTIONS WITH NH- AND SH-NUCLEOPHILES

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Recently in laboratory of phosphororganic compounds of IOCh NAS RA a new reaction way of buta-1,3-diene-1,4-bis(triphenylphosphonium)halides by heating with dialkyamines [1] leading to monophosphonuim salts with 4-dialkylamino-1,3-butadiene groups has been found. The same reaction has been realized by us with participation RSH compounds, proceeding already at room temperature. In the result of this reaction unknown in literature 4-S-substituted buta-1,3-diene phosphonium salts are obtained.

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\begin{align*}
\text{Ph}_3\text{P}^+ & \quad \text{Ph}_3\text{P}^+ \\
\text{Br}^- & \quad \text{Br}^- \\
\text{A} & = \text{N, S}
\end{align*}
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Using the nucleophilic addition reactions of AH compounds to \(\alpha,\beta\)-unsaturated triphenylphosphonuim salts we have obtained from triphenylprop-1-enylphosphonium bromide by interaction with R-SH compounds the row of 2-methyl-2-S-functionally substituted propylphosphonuim salts and also on their base analogously builded phosphorylic compounds. The resulted P- and S-containing compounds could be useful in the agrochemical field as herbicides, fungicides, bactericides.

Reference
