

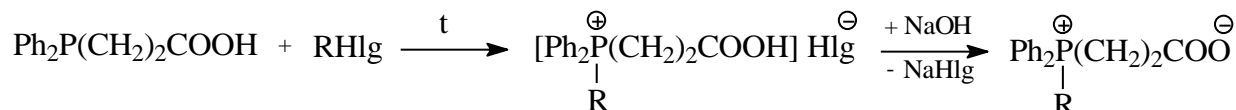
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## SYNTHESIS, STRUCTURE AND BIOACTIVITY OF NOVEL CARBOXYLATE PHOSPHABETAINES WITH LONG ALKYL CHAINES

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Organophosphorus compounds are one of the most important groups of modern antimicrobial agents, due to their high antifungal and antibacterial activity. The alkylation reactions of 3-(diphenylphosphino)propionic acids by long-chain aliphatic alkyl halides lead to the formation of phosphonium salts. These salts with NaOH gave corresponding carboxylate phosphobetaines at room temperature.



$\text{R} = \text{C}_n\text{H}_{2n+1}$ ;  $n = 1-3, 10, 14, 16, 18$ ;

$\text{Hal} = \text{I} (n = 1-3), \text{Br} (n = 10, 14, 16, 18)$ .

In conclusion, all phosphorylated derivatives were synthesized in good yield, characterized by different spectral studies and analyses, and their antimicrobial activity has been evaluated.

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