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Synthesis and biological evaluation of novel carboxylate phosphobetaines derivatives with long alkyl chains

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Abstract

© 2016 Taylor & Francis Group, LLC. The purpose of the present study was to investigate the antibacterial activity of novel alkyl esters of carboxylate phosphobetaine: β -(carboxyalkyl)ethyltributylphosphonium bromides 4–8. The in vitro microbiological activity of the synthesized phosphonium bromides against gram-positive, gram-negative bacteria and the yeast *Candida albicans* was determined in comparison to standard agents. Microbiological results indicate the synthesized phosphonium salts possess a broad spectrum of activity against the tested microorganisms. Every newly synthesized compound was characterized by elemental analyses, IR, ^1H NMR, ^{31}P NMR spectral studies.

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Keywords

antimicrobial activity, long alkyl chain, Phosphobetaines