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Synthesis and biological evaluation of novel carboxylate phosphabetaines 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 phosphabetaine: 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 testedmicroorganisms. Every newly synthesized compound was characterized by elemental analyses, IR, 1H NMR, 31P NMR spectral studies.

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Keywords

antimicrobial activity, long alkyl chain, Phosphabetaines