SYNTHESIS OF ALIPHATIC SYMMETRIC DIPHOSPHONIUM SALTS AND BACTERICIDAL ACTIVITY OF SELECTED PRODUCTS

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Abstract. Eight new aliphatic symmetrical diphosphonium salts were synthesized by reacting o,ω'-dibromoalkanes with triphenylphosphine or tributylphosphine using N,N-dimethyl acetamide as a solvent at 140-150°C for 17-24 h under a nitrogen atmosphere. Product characterization and bactericidal tests against saprophytic bacteria, sulphate reducing bacteria and iron bacteria were performed. Three compounds presented bactericidal activity, among which 1,12-di(tributylphosphonium bromide)dodecane provided the best results.

Keywords: diphosphonium salts, o,ω'-dibromo alkane, synthesis, bactericidal activity.

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