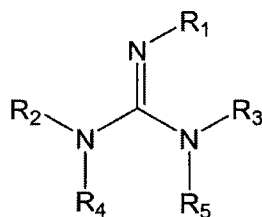


A METHOD OF SYNTHESIZING CELLULOSE CARBONATE

ABSTRACT

- 5 According to the present disclosure, a method of synthesizing cellulose carbonate is provided. The method includes mixing a solution comprising dimethyl sulfoxide and cellulose with an organic base in the presence of carbon dioxide to form a cellulose solution comprising cellulose carbonate anions, wherein the organic base is represented by a formula of:



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wherein each of R₁, R₂ and R₃ is C₁-C₂₀ alkyl; and wherein each of R₄ and R₅ is hydrogen or C₁-C₂₀ alkyl. The method also includes contacting the cellulose solution with one or more organochlorides in the presence of carbon dioxide to form the cellulose carbonate, and adding an alcohol or water to precipitate the cellulose carbonate.

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No Figure