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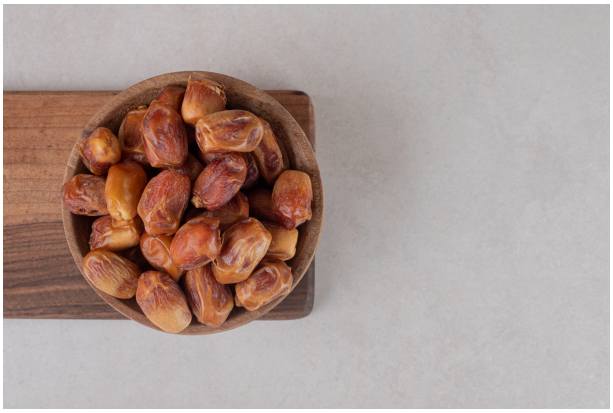
Novel Phosphonium Based Deep Eutectic Solvents And Applicant



MORE INFORMATION

MEGA-TREND

- Chemicals and Materials

TECHNOLOGY READINESS LEVEL (TRL)

- TRL 2

PATENT/ GRANTED NUMBER

- MY-175656-A

TECHNOLOGY OVERVIEW

Deep eutectic solvent (des) with a freezing point of up to 100C are formed by the reaction of phosphonium ammonium salt of formula (i) r1 r2 r3 r4 y+ x-, or a hydrate thereof; where y is p or n, with fructose a glucose capable of forming a hydrogen bond with x wherein the molar ratio of i to ii is from 2:1 to 1:10 in the presence of not more than 10 wt% of water. Accordingly, the deep eutectic solvent, wherein the deep eutectic solvent is used for recovering fructose and/or glucose from dates, a method comprising the steps of: a) providing a mass of dates and deep eutectic solvent; b) selecting one of the deep eutectic solvent and dissolving the dates in the selected deep eutectic solvent; c) vigorously agitating the selected deep eutectic solvent and dates until a precipitate is formed with a remaining solutions; d) separating the remaining precipitate and the remaining solution; and removing the fructose or glucose form the remaining solution; wherein the deep eutectic solvent is synthesized at freezing point of up to 100C by the reaction of phosphonium or ammonium salt with fructose or glucose in the presence of not more than 10 wt% of water.

CONTACT US!

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