

Dissolution of Biopolymers Using Ionic Liquids

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Ionic liquids represent a unique class of solvents that offer unprecedented versatility and tunability. Nature has developed a wide variety of materials based upon both proteins and polysaccharides. Many of these materials have unique properties that are a function not only of the material identity but are also largely dictated by processing conditions. Recent work has shown the potential of ionic liquids as solvents for the dissolution and processing of biopolymers. In this research we have expanded upon the limited data available to date using several biopolymers including: silk, chitin, collagen and elastin.

Key words: Ionic Liquids; Silk; Biopolymers; Solubility; Chitin; Collagen; Elastin.