

# Cellulose Recovery from Various Feedstocks utilizing Bionic Liquids

**Markus Damm<sup>a</sup> and Roland Kalb<sup>a,b</sup>**

<sup>a</sup>proionic GmbH, Parkring 18, 8074 Grambach, Austria

<sup>b</sup>Joint BioEnergy Institute, Lawrence Berkeley National Laboratory, Berkeley, USA

markus.damm@proionic.com

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Since the early 2000s, ionic liquids are known as efficient and green solvents for Cellulose and other biopolymers that are structurally quite different from each other (e.g. hemicellulose, lignin, chitin, etc.)<sup>[1]</sup>. During the last years the focus of many activities was directed on the recycling of textiles, the production and finishing of textile fibers, or the valorization of Biomass waste streams using biobased ionic liquids<sup>[2]</sup>.

The current work describes the utilization of various ionic/bionic liquids for the above-mentioned applications and evaluates their efficiency of dissolving lignocellulosic Biomass. Crucial to obtain an economically feasible process at the end of the day is process optimization and recycling of the ionic liquid solvent system which will be a main part of the presented work.



*Figure 1. Cellulose (right) obtained from shredded hemp hurds (left) using a biobased ionic liquid.*

## REFERENCES

[1] R. P. Swatloski et al., J. Am. Chem. Soc. 124, 18, 2002, 4974

[2] N. Sun et al., Green Chem. 16, 2014, 2546