

Synthesis of Glucose from Ionic Cellulose

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Water-soluble-ionic-cellulose was synthesized by the reaction of cellulose with ionic liquid. The hydrolysis of 50 mg of ionic cellulose in 5 g of water was performed over several kinds of solid-acid catalysts. The yields of glucose and other products were investigated. Overall, sulfonated active carbon gave the highest yield of glucose as compared to the other catalysts at the same reaction condition, at 150°C, for 24 h. The reusability of catalyst was tested and found that the catalytic activity maintained even after 5 time reuse.