Accepted Manuscript

Conversion of sunflower stalk based cellulose to the valuable products using choline chloride based deep eutectic solvents

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PII: S09	60-1481(17)31044-3

DOI: 10.1016/j.renene.2017.10.083

Reference: RENE 9371

To appear in: Renewable Energy

Received Date: 05 July 2017

Revised Date: 16 September 2017

Accepted Date: 25 October 2017

Please cite this article as: Murat Sert, Alpaslan Aslanoğlu, Levent Ballice, Conversion of sunflower stalk based cellulose to the valuable products using choline chloride based deep eutectic solvents, *Renewable Energy* (2017), doi: 10.1016/j.renene.2017.10.083

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Highlights

- Direct conversion of cellulose to valuable chemicals such as 5-HMF and levulinic acid was investigated under microwave radiation and conventional reactor system.
- Deep eutectic solvents (DES) were employed as a solvent and as a catalyst in reactions.
- The highest C efficiency at 180 °C in microwave reactor within only 1 minute is 99.07% of. At these conditions, 76.2% of levulinic acid, 4.07% of 5-HMF, 5.57% of furfural yield was obtained.

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