



Improved Microbes for Cellulosic Ethanol Production

One challenge in current cellulosic ethanol production is obtaining efficient conversion of sugar mixtures resulting from hydrolysis of starch or cellulosic feed stocks. Further, there is a need for organisms that are not affected by inhibitory or toxic substances that are generated by cellulose hydrolysis. To address these needs, researchers at the University of Minnesota have developed microbes that convert sugar mixtures (C5 and C6) optimally to ethanol and are not impeded by toxins and other adverse fermentation conditions.

Features & Benefits

- Pentose and hexose sugars are optimally consumed, decreasing total ethanol production time.
- Allows flexibility for processing mixtures of sugars from a variety of biomass feedstocks
- Fermentation can occur in the presence of inhibitors and toxic compounds (i.e. acetate and furfural), increasing efficiency of ethanol production.

Technology Status

Robust organisms have been produced that tolerate toxic conditions and produce high rates of ethanol from pentose and hexose sugars.

IP Status

PCT patent application pending

Primary Inventor

Dr. Friedrich Srienc, Dept. Chemical Engineering and Materials Science

Questions? Contact:

Eric Hockert,
Technology Marketing Manager

Ph 612.624.9568

E-mail ehockert@umn.edu

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