

Bioenergy I Posters: Fuel Alcohols



Determination of the Branching Ratio in Starch Based Raw Materials for Bioenergy by ^1H HR MAS NMR Spectroscopy

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Summary of “Determination of the Branching Ratio in Starch Based Raw Materials for Bioenergy by ^1H HR MAS NMR”



- Accurate analyses of the starch based raw materials for biofuel production are necessary to set up **more efficient** procedures for saccharification leading to bioethanol production.
- Current rapid methods of analysis of starch are **secondary** methods that are based on “**apparent**” estimates of starch structure in intact materials.
- Proton NMR is a **primary** analysis method and is shown to provide accurate analyses by way of the starch branching ratio that still correlates well to the apparent amylose measurements.
- The results provide a **better** reference method for rapid techniques such as near-infrared and Raman analysis of raw materials.