



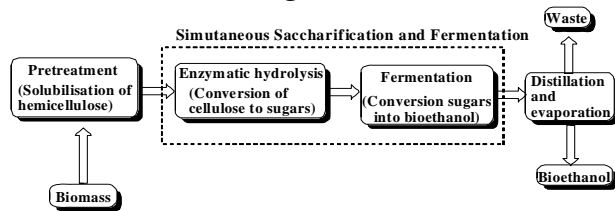
Utilization of Switchgrass, *Panicum virgatum* L, as a Biofuel Feedstock



Zhoujian Hu

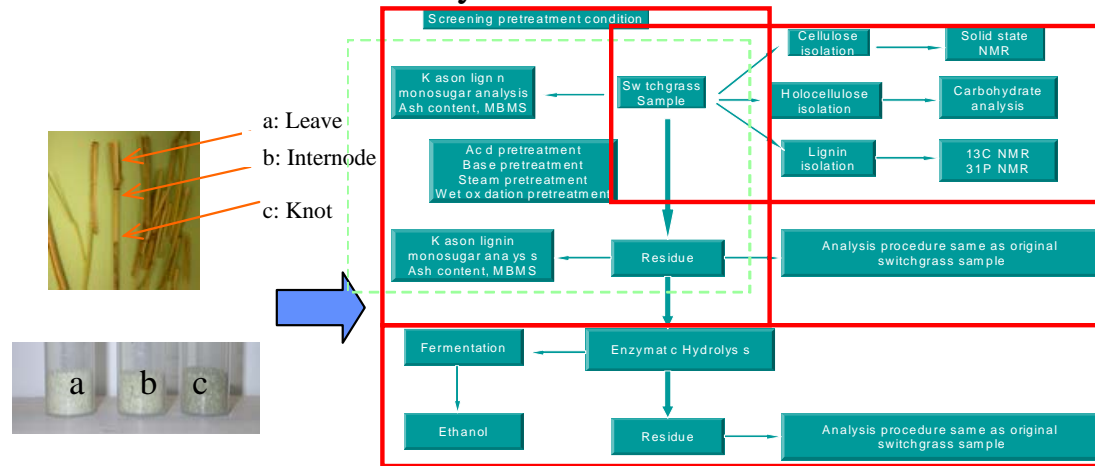
PROGRAM DESCRIPTION

- Developing technologies for biofuel production from lignocellulosics requires suitable bioresource, tunable pretreatment technology, enhanced enzymatic hydrolysis and fermentation system, and efficient process for ethanol production.
- Thesis research emphasize is on bioresource selection from switchgrass, pretreatment chemistry and pretreatment technologies for bioethanol production from switchgrass.



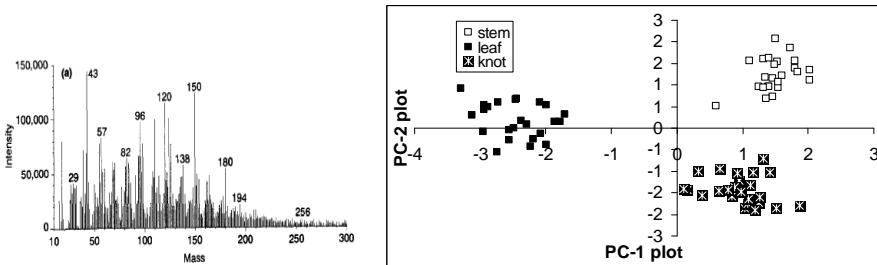
TECHNICAL DETAILS

- Feedstock selection
- Biomass characterization
- Pretreatment technologies
- Pretreatment chemistry



PAYOFF

Feedstock selection

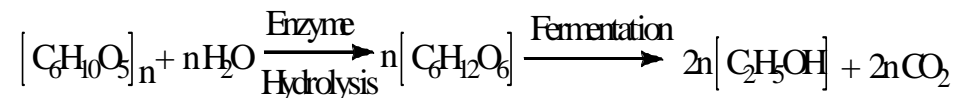


Principle component analysis of py-MBMS spectra of four genotype switchgrass

- Optimized pretreatment technology for switchgrass
- Enhanced bioethanol production

KEY ACCOMPLISHMENTS

- Feedstock selection: Chemical profiles of morphological portion of switchgrass, leaf, stem, and knot, have abnormal features
- Pretreatment technologies: ongoing
- Pretreatment chemistry: ongoing



Professor AJ Ragauskas, Supervisor

