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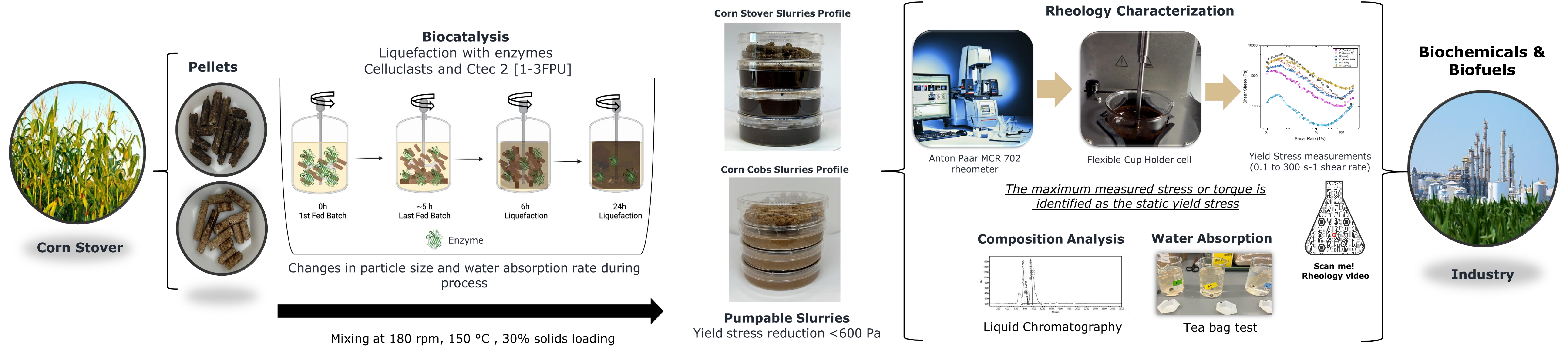
## ABSTRACT

**Objective :** Address feedstock variability as it represents a challenge in the adoption of lignocellulosic biomass for biofuels and biochemicals production, due to the differences in critical chemical and physical properties.

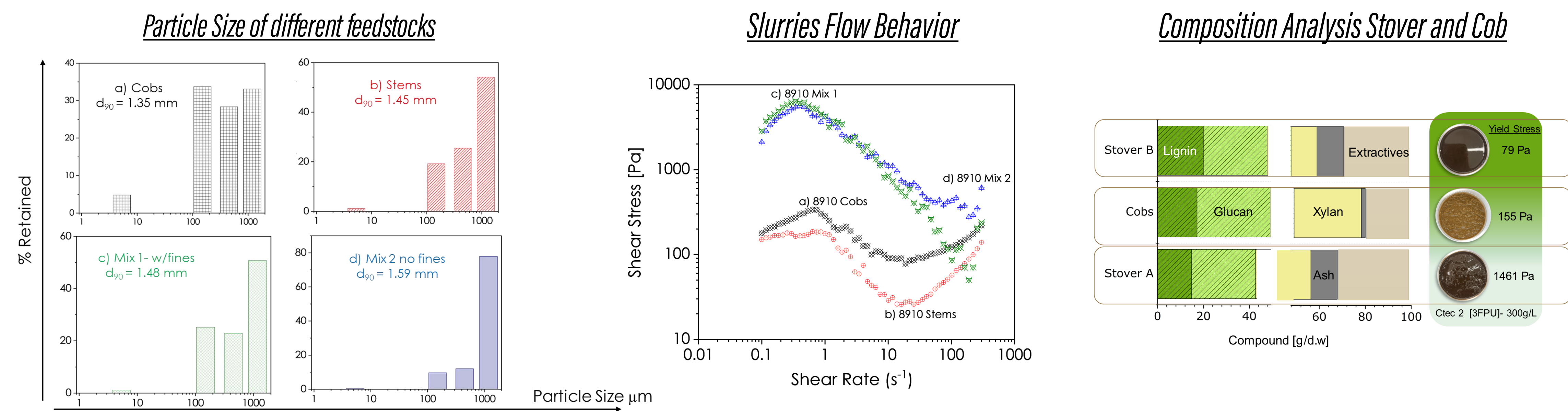
This research focused on the modeling of flow properties based on rheological measurements of treated biomass is a metric for identifying different feedstock's ability to form slurries. Correlation of yield stress to physical and chemical properties gives a measure that accounts for the variability in the processing design. This research models rheological properties and relates these to compositional data from different non-pretreated fractions of corn stover biomass slurries.



## Materials and Methods

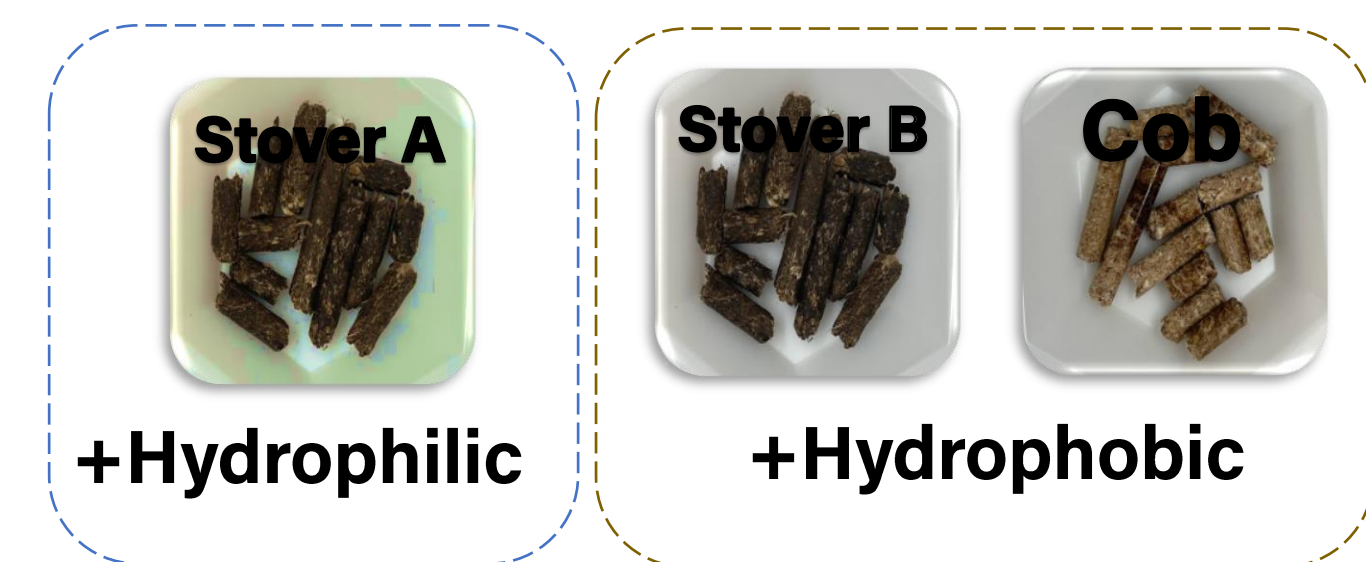


## Results and Discussion

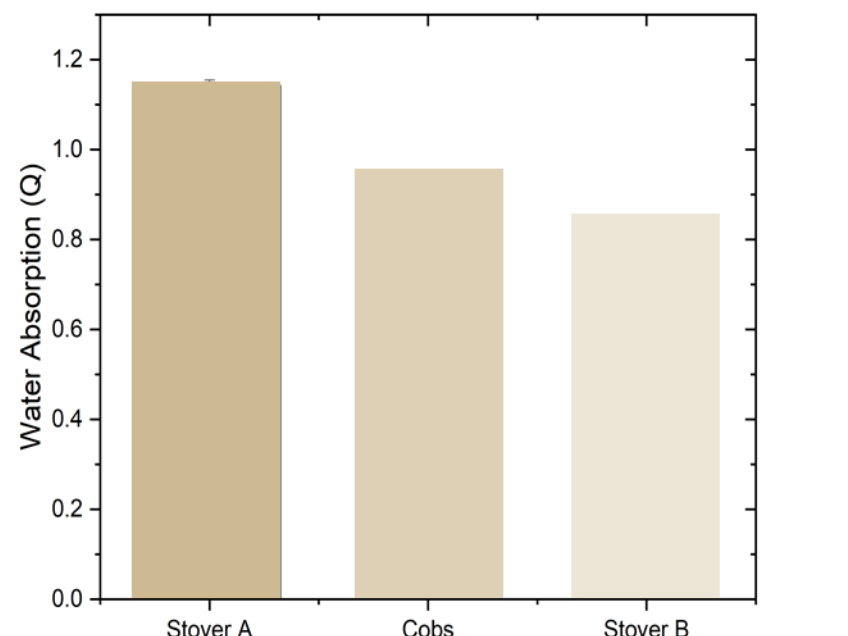


## Conclusions & Future Work

✓ Lignin can affect the hydrophobicity of the pellets



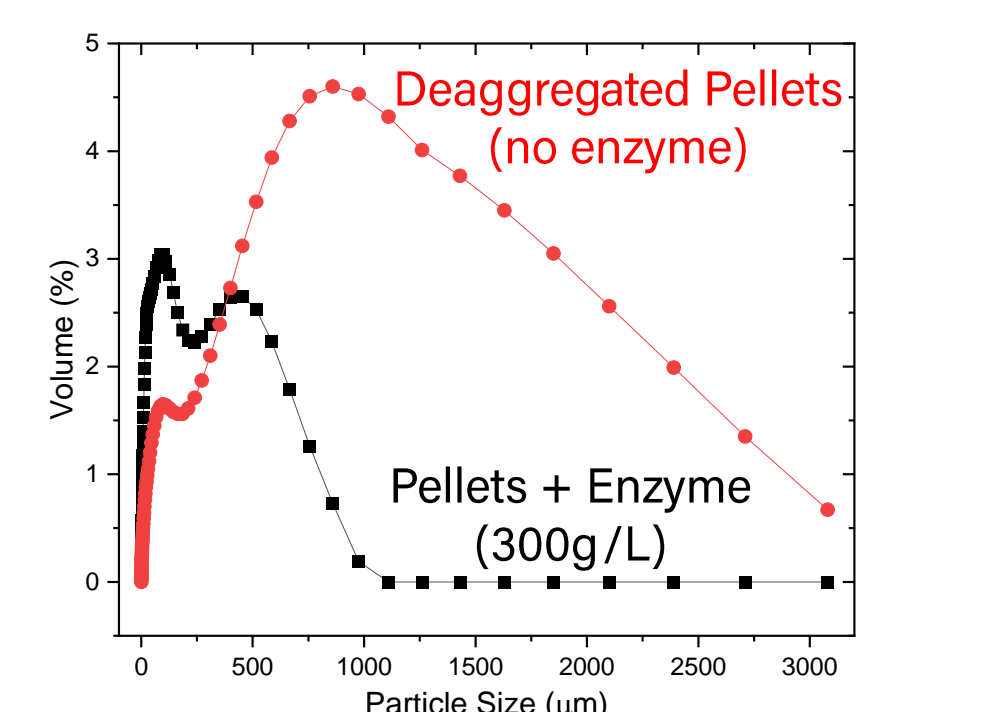
✓ Water Absorption and Free water are key indicators of slurry formation



✓ Slurry yield stress was reduced by 90% upon liquefaction.



✓ Particle size changes are evident from the original material, but initial particles size do not determine of slurry formation



## PRESENTER BIO INFORMATION

**Diana M. Ramirez Gutierrez**

Diana is a Postdoctoral Research Associate from LORRE lab in ABE at Purdue University. Focusing on biomass transformation through biocatalysis and fermentation. She is part of the DEI ABE and has a passion for renewable energies initiatives., like solar power and biofuels

