

EES Catalysis

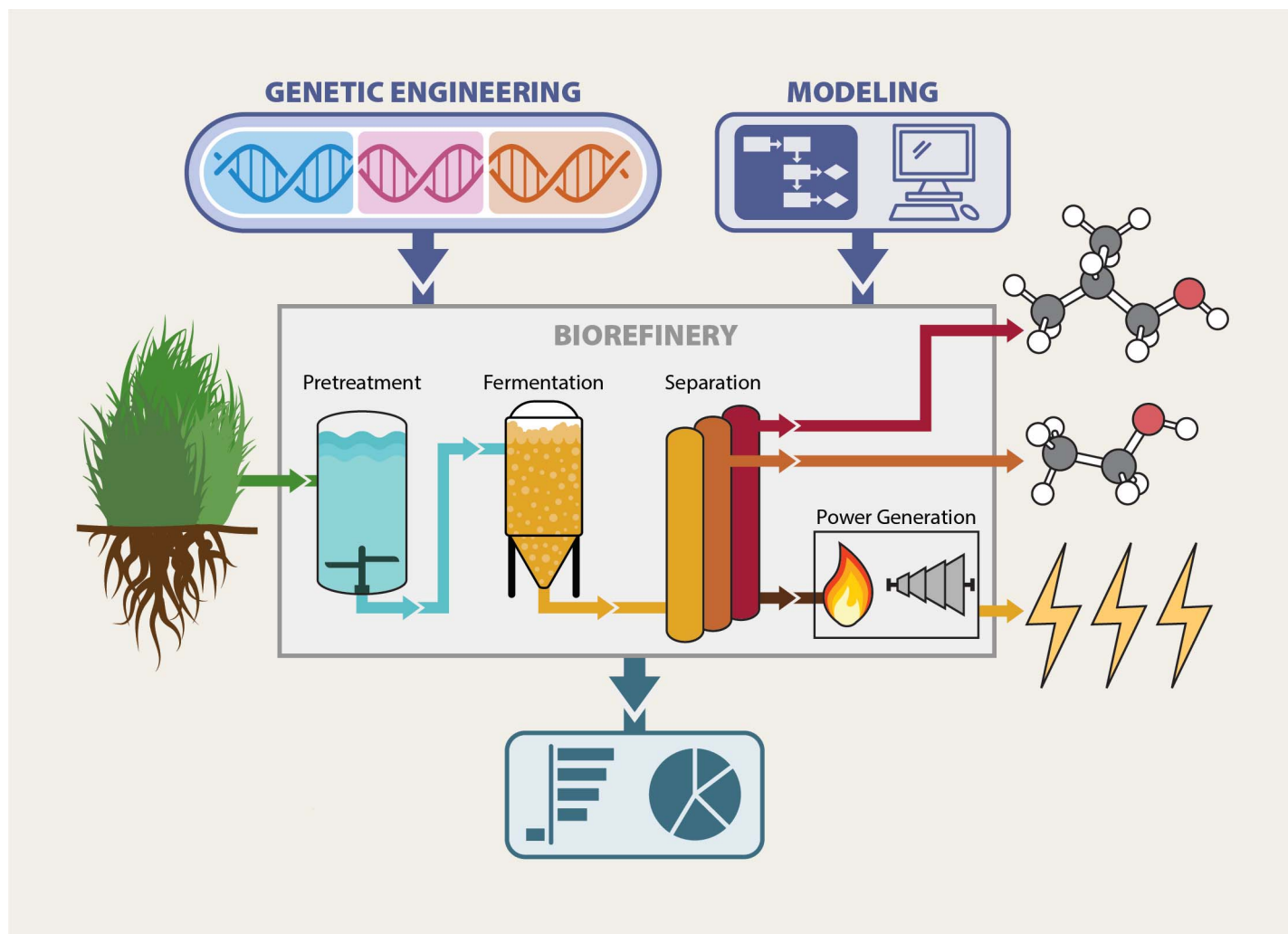
GOLD
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**Exceptional research on energy
and environmental catalysis**

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**Fundamental questions
Elemental answers**

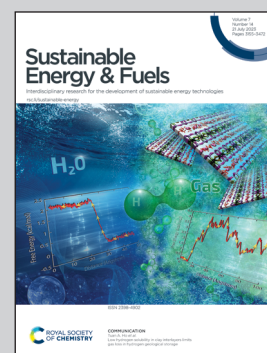


Showcasing experimental and computational research from the Great Lakes Bioenergy Research Center, United States.

High yield co-production of isobutanol and ethanol from switchgrass: experiments, and process synthesis and analysis

Here, we engineer a yeast strain and demonstrate its capability for high-yield co-production of isobutanol and ethanol from switchgrass hydrolysate. Also, based on experimental results, we design a switchgrass-to-alcohol biorefinery and analyse its performance and economic feasibility. Our analysis suggests that improvements in the hydrolysis enzyme loading and the conversion of xylose to alcohols will have the greatest economic impact. Image by Matthew Wisniewski / Wisconsin Energy Institute.

As featured in:



See Maravelias *et al.*,
Sustainable Energy Fuels,
2023, 7, 3266.