Clean Technology

FLOW-BASED AEROBIC DEPOLYMERIZATION OF LIGNIN

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The Invention

UW-Madison researchers have developed a flow reactor for lignin valorization. The flow-based reactor increases monomer production while limiting unwanted side/subsequent reactions. In particular, material flow rates coupled with an oxygen permeable membrane allows for precise control over oxygen concentration, resulting in lignin-derived aromatics, while limiting further oxidation. Presently, the flow reactor leverages commonly available materials, including PTFE (Teflon), as a continuous membrane. Further, this invention allows for continual oxygen flux throughout the length of the reactor, which addresses oxygen consumption issues present in other flow reactors. All told, this flow reactor could be used to increase the efficiency of extracting valuable aromatics from lignin.

Additional Information

For More Information About the Inventors

- Shannon Stahl
- Thatcher Root

Publications

- Read a news story about this technology.

Tech Fields

- Clean Technology : Biobased & renewable chemicals & fuels

For current licensing status, please contact Jennifer Gottwald at jennifer@warf.org or 608-960-9854