



High-Yield, Highly Reactive Polyols for Polyurethane Production

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HIGHLIGHTS

- New method to create higher polyols yields
- Eliminates toxic solvent use
- Reduces operational costs and process integration
- Enables improved physical properties (e.g., increased functionality, higher reactivity, low viscosity)

OPPORTUNITY

Polyols are key to today's polyurethane applications (e.g., furniture, bedding, car seats and insulation applications, and coatings, adhesives, sealants). Recent environmental trends have driven increased production of bio-based polyols derived from renewable sources—however the process still requires highly concentrated, toxic acid solvents.

University of Alberta researchers have developed a new method to create higher polyol yields that are more reactive in polyurethane production processes. This method eliminates toxic solvent use and promotes the reuse of environmentally friendly alternative chemicals, thereby reducing operational costs and process integration. The result is a cheaper, uncomplicated, and industrially feasible chemical technique to produce both petroleum-based and bio-based polyols in an environmentally friendly manner.

COMPETITIVE ADVANTAGE

- Less expensive, comparable production times
- Safer to use; environmentally friendly
- More reactive in polyurethane manufacture

STATUS

- Patent issued United States - [US15/736,999](#)

INVENTOR

- [Dr. Jonathan Curtis](#) and his team

MORE INFORMATION

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