

# A Systematic Study of Metal Triflates in Catalytic Transformations of Glucose in Water and Methanol: Identifying the Interplay of Brønsted and Lewis Acidity



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Invited for this month's cover is the group of Prof. Bradley Williams at the University of Technology Sydney. The image depicts the manifold products that can be selected in transformations of glucose through manipulation of the Brønsted or Lewis acidity of the catalyst.

The Full Paper itself is available at [10.1002/cssc.201900292](https://doi.org/10.1002/cssc.201900292).

## What prompted you to investigate this problem?

Our literature survey on the acid-catalyzed valorization of carbohydrates, presented in our earlier manuscript (*ChemSusChem* 2018, 11, 642), provided us with an impetus for strengthening the fundamental understanding of these processes. It highlighted some gaps in our knowledge.

## What was the inspiration for this cover design?

It's a bit like seeing the tree (cellulose) as a source, like a spring. A source of new chemistry, a source of new products, a source to replace petrochemicals.

## What was the biggest challenge on the way to the results presented in this paper?

We explored an area of well-studied reactions that required innovative thinking to define original solutions. Such work must be robust, rigorous, and thoroughly convincing.

## What new scientific problem does this work raise?

We are investigating improved processing of cellulosic biomass into platform chemicals, using deeper understanding based on fundamental knowledge and our tunable catalyst systems.

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