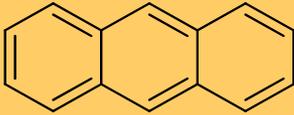


Towards a Renewable Chemicals Industry

- Goal: to synthesize chemical feedstocks from renewable building blocks using CO₂

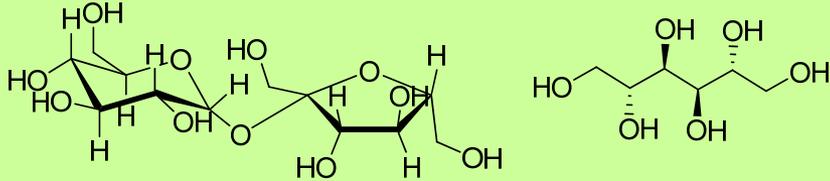
Petroleum ≠ Biomass

C_nH_{2n+2} C_nH_{2n+2} 

alkanes cycloalkanes aromatic hydrocarbons

Low functionality

- Suitable for fuels and catalytic processing
- To make chemical intermediates, functional groups are added selectively



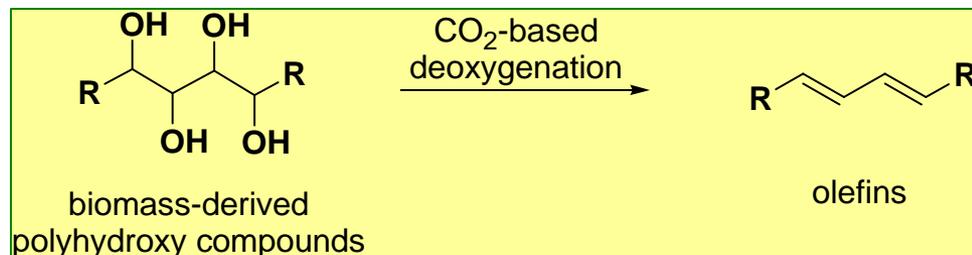
carbohydrates

Excess functionality

- Not suitable for fuels
- Selective elimination of functionality to make value added chemicals

- Challenge: develop a ***new set of tools*** to convert renewables into useful feedstocks

Aim of this project: CO₂-Based Defunctionalization of Biomass-Derived Polyols



Preliminary Results for Formic Acid-Mediated Deoxygenation

