

Catalyst Development for Selective Electrochemical Reduction of CO₂ to High-value Chemical Precursors

— opus 12



Goal:

Enhance selectivity and energy efficiency of electrochemical carbon dioxide reduction

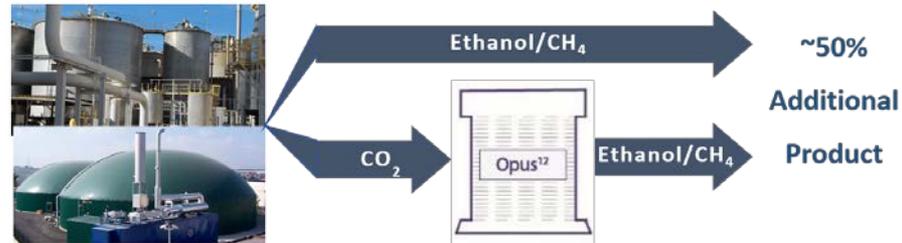
Approach:

Modify copper catalyst and carbon support to favor desired products

Impact on the Bioenergy Industry:

Improve yield of fermentation through utilization of CO₂ co-product and provide a new source of feedstock for bio-processes

1) Increase yield of biological processes



2) Zero-land use feedstock for biological processes



ChemCatBio Capabilities Leveraged:

Nanoparticle catalyst design, synthesis, and advanced characterization