# Catalyst Development for Selective Electrochemical Reduction of CO<sub>2</sub> to High-value Chemical Precursors

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#### **Goal:**

 Enhance selectivity and energy efficiency of electrochemical carbon dioxide reduction

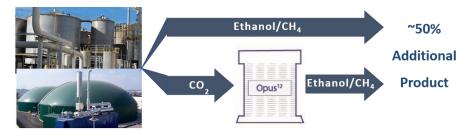
#### Approach:

 Modify copper catalyst and carbon support to favor desired products

### Impact on the Bioenergy Industry:

 Improve yield of fermentation through utilization of CO<sub>2</sub> coproduct 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



