Advanced Catalyst Synthesis and Characterization

Goal:

Develop high performing, cost-effective catalytic materials by integrating world-class synthesis and characterization capabilities across DOE National Laboratories

Approach:

- Identify active site structures in working catalysts under realistic conditions
- Inform computational models to predict active site structures with enhanced performance
- Develop next-generation catalysts with predicted structures
- Verify performance improvements with ChemCatBio catalysis projects

Impact:

Reduce conversion costs for biomass processes by accelerating the catalyst development cycle