

CO₂ Utilization Technology (CCU)

Technology Overview

- Development of Various Chemical CO₂ Conversion Technologies
- Development of Energy-Efficient Processes by using Renewable Energies and Resources (e.g., Waste Heat, Solar Energy, Landfill gas, and etc.)
- Production of High Value Chemicals from CO₂

Core Technologies

- New Efficient/Stable Catalytic System for CO₂ Dry Reforming
- Novel Integration Process for the Production of CO₂-based High Value Chemicals (DMC, Polyurethane, Acetic Acid, Formic Acid, and etc.)
- Solar-powered Electrochemical CO₂ Conversion Technologies

Application Area and Advantages

- Development of Technically & Economically Feasible CCU Technologies
- CO₂ as a New Feedstock in Chemical Industry
- Applicable for CDM Project (Clean Development Mechanism)

Accomplishments

- 3 Tech. Transfers to Korean Chemical Company since 2011
- KRICT New Technology selected in 2012
- CCU Test-bed Operation planned in 2017

