

Emitted CO₂ Gas Capture•Materialization Process Using Alkali Suspension Micro-bubble Reactor

New Technology	Emitted CO ₂ Gas Capture • Materialization Process Using Alkali Suspension Micro-bubble Reactor	Certificate	GT-13-00092
Model Name	-	Application Part	Recycling of air pollutants
Company	Daewoo E & C and 1 other Co.	Telephone	+82-2-2288-3113
Homepage	http://www.daewooenc.com/	E-mail	-

1. Outline

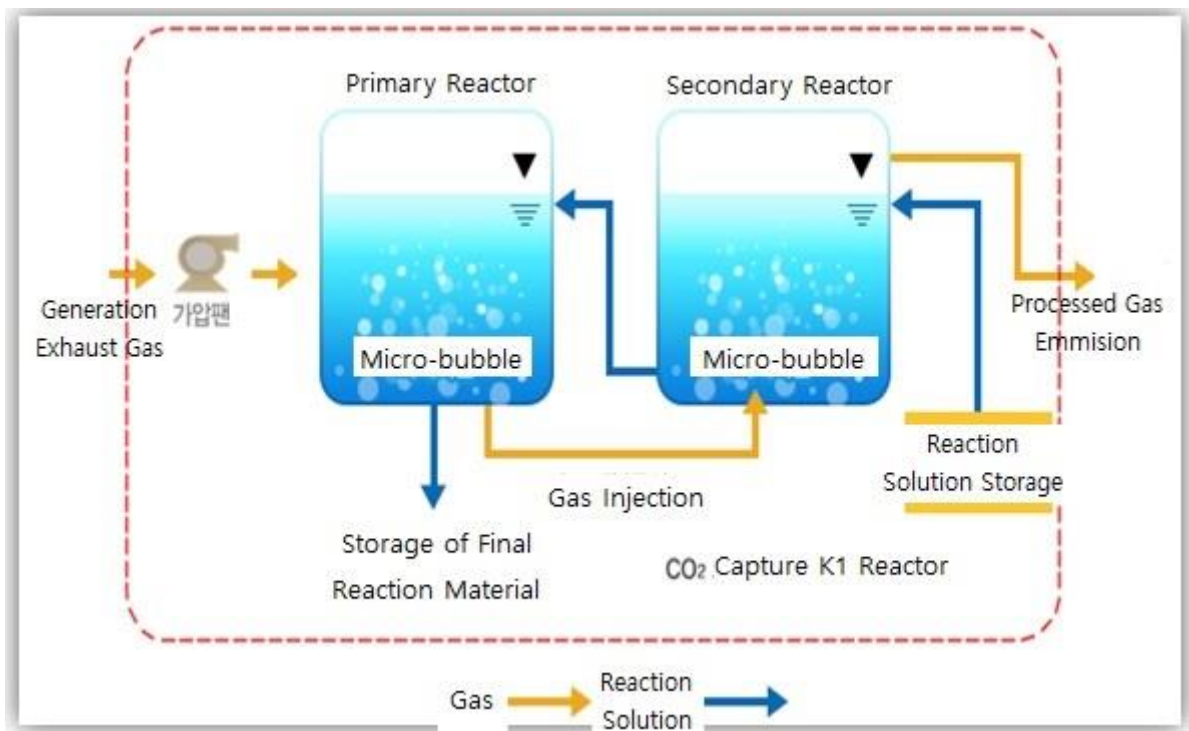
- Technology that absorbs and captures carbon dioxide in combustion exhaust gas from power plant by using alkali suspension and micro-bubble reactor in order to use as industrial raw material such as cement substitute

2. Characteristic

- Contribution to domestic carbon dioxide capture technology (CCU) industry
 - Respond to government's greenhouse gas reduction policy
 - Contributing to the task of reducing greenhouse gas emissions since 7th in the world for total carbon emissions
 - Recycling of CO₂ through first domestic 10 ton CO₂ capture technology
- Installed as demonstration project in Incheon Environmental Corporation Chungna Incinerator
 - Expected to realize clean atmosphere
 - Maintain efficiency rate of 90% for CO₂ removal
- Expected to account for 19% of global greenhouse gas reduction amount before 2050
 - Established a foothold in entering the global market
- Unlike existing technologies, after CO₂ capture, major by-products are recycled as raw materials

- Reduction of cost for carbon dioxide removal
- Generated by-products can be used from desulfurizer to fertilizer, paint, building material, etc.
- No storage space required, unlike CCS (Capture Storage Technology)
- Greenhouse gas emission reduction effect
- Can be applied to all processes such as industrial boilers, incinerators, gas, refineries, etc. that capture carbon dioxide and form raw materials

3. Introduction



[Picture 1] Technology Principle and Process Diagram

4. Application

- Application Part: Air Pollutant Emission Facilities
- Development Stage: Development Complete
- Technology Application Part
 - Industrial Boiler site
 - Incinerator
 - Gas purification process