

Characteristics of CO₂ fixation in MEA, DEA, MDEA solutions with Barium ions

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CO₂ known that is the most typical Greenhouse gas. As you know, most of the CO₂ gas emitted from artificial activity of human. Reduction method of the CO₂ could divide to physics, chemical and biochemical methods. Among physics and chemical ways, CCS is a famous for reducing technology. Of course it has so many disadvantages. In the disadvantages, we thought that the biggest problem is the storage area. In general, CCS consists of capture and storage parts. So if it could secure an enough area, it could not apply. In this study, therefore, we supposed that the absorbed CO₂ need to reuse method at the nature or industries. The emitted CO₂ changes to ionic CO₂ by conversion solution. And then, it made a carbonate in combine conversion solution and metal ions. Product carbonate analyzed to XRD. Also we certified the possibility to conversion solution could reuse at same process more than 2 times.