

산성가스제거 공정에 디에탄올아민 흡수제의 열화

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CO₂ capture and storage is one of the promising technologies to reduce greenhouse gas emissions. Post-combustion is the capturing method which has been deemed the easiest to apply to existing power plants in a short period of time. Absorption of CO₂ by MEA, MDEA, DEA are the most common method used in post-combustion carbon capture. Although this amines degradation has been intensively studied, some degradation products are still unidentified. In this paper, thermal degradation and oxidative degradation of diethanolamine (DEA) has been studied. Oxidative degradation of diethanolamine (DEA) was studied under typical absorber condition of 40°C and thermal degradation of diethanolamine (DEA) was studied under typical stripper condition of 105°C. Various analytical methods for determination of the known compound were used. This work was supported by Engineering Development Research Center (EDRC). This work was also supported by Priority Research Centers Program through the National Research Foundation of Korea (NRF) funded by the Ministry of Education (2014R1A6A1031189)