# The effects of operational parameters on the degradation of Alkanolamines

오상교[1,2], 남성찬[1], 이종섭[1], 한근희[1], 이영우[2], 민병무[1,*]
[1]한국에너지기술연구원; [2]충남대학교
(bmmin@kier.re.kr*)

Alkanolamines have been widely used in the gas processing industries for the removal of acidic gases, especially $CO_2$ from fluegas. During the absorptive and desorptive processes, alkanolamines are thermally and chemically degraded. And its degradation causes the extensive alkanolamine loss and equipment corrosion. Therefore, the degradation characteristics of alkanolamines should be investigated for the successful operation of $CO_2$ absorption process. In this study, the effects of operational parameters such as process times and presence of $O_2$ on the degradation of MEA (monoethanolamine) and AMP (2-Amino 2-methyl 1-propanol), the representative alkanolamines, were observed with the equipments composed of absorption and desorption loop. The degree of MEA and AMP degradation was analyzed by FT-IR and GC.