

The Economy Analysis of MBA Process for Reducing Carbon Dioxide

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The worsening global warming raising the atmospheric temperature has been one of the most serious problems to be solved. We proposed the MBA (Moving Bed Adsorption) process to reduce the level of carbon dioxide in flue gas by means of the adsorption. In this study, the economy analysis will be carried out to elucidate the beneficence of the MBA process through the comparative studies to the other conventional techniques such as absorption processes. The steady-state models for the MBA process with heat exchangers as well as the industrially realistic blower and the vacuum pump are used to compute total operating costs. Afterward, the optimization was incorporated to find the optimum operating conditions including the bed temperature and the pressure.