

## عنوان مقاله:

Prediction of Minimum Miscibility Pressure for Carbon Capture and Sequestration and Acid Gas Disposal Applications

## محل انتشار:

هفتمین کنگره ملی مهندسی شیمی (سال: 1390)

تعداد صفحات اصل مقاله: 10

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## خلاصه مقاله:

Many carbon capture and storage (CCS) and Acid Gas Injection (AGI) projects involve streams of impure CO<sub>2</sub> mixtures produced from power plants and gas processing units. A key parameter in the design of acid gas injection and miscible CO<sub>2</sub> flooding is estimation of Minimum Miscibility Pressure (MMP) of impure CO<sub>2</sub>-oil. In this study, a correction factor based on Alston et al. model was modified to obtain the MMP of impure CO<sub>2</sub>/oil system. The correction factor that depends on weight average pseudo critical temperature of injected gas was multiplied by calculated MMP of pure CO<sub>2</sub> to predict MMP of flue gas and acid gas-oil. Weight average pseudo critical temperature of injected gas was adjusted by using a multiplying factor (MFi) for each component in the gas mixture. To confirm the accuracy of improved model Absolute Average Deviation (AAD) was computed. Results showed that MMP experimental statistics of impure CO<sub>2</sub>-oil can be reproduced with AAD less than 5.46% through this model which represented the evaluation of more accurate MMP data compare to those obtained by other available correlations

## کلمات کلیدی:

Miscibility, Minimum Miscibility Pressure, Carbon Capture and Sequestration, correlation

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/341332>

