

عنوان مقاله:

Prediction of water content of carbon dioxide using the PC-SAFT equation of state

محل انتشار:

بیستمین کنفرانس شیمی فیزیک ایران (IPCC20) (سال: 1396)

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خلاصه مقاله:

Information about water content in carbon dioxide is of particular importance to the transfer and processing of natural gas. Experimental results for the water content are collected in literatures for the carbon dioxide-rich phase at temperatures ranging from 298.15(K) to 373.15(K) and pressure of 0.69(MPa) to 7.17(MPa). The goal of this work is to check the ability of the PC-SAFT equation to predict the solubility of water (H₂O) in CO₂. The computer algorithm used for isothermal multiphase flash calculations is based on the minimization of the Gibbs energy along with stability analysis to find the most stable state of the system.

کلمات کلیدی:

water content, PC-SAFT, carbon dioxide

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