عنوان مقاله:

Estimation of Vapor-Liquid Equilibrium of Carbon dioxide with Methanol at High Pressures Using Artificial Neural Network

محل انتشار:

ششمین کنگره بین المللی مهندسی شیمی (سال: 1388)

تعداد صفحات اصل مقاله: 5

نویسندگان:

B Bahramipirbazari - *Chemical and Petroleum Engineering Department, Shiraz University, Shiraz, Iran*

M Lashkarbolooki - *Chemical and Petroleum Engineering Department, Shiraz University, Shiraz, Iran*

F Esmaeilzadeh - *Chemical and Petroleum Engineering Department, Shiraz University, Shiraz, Iran*

خلاصه مقاله:

The aim of this study is to apply a method based on artificial neural network for prediction of vapor-liquid equilibrium of carbon dioxide with methanol at high pressures. The results of the neural network model were compared with those of the Peng-Robinson equation of state. 70percent of the experimental data points have been used for training and the remaining are used for testing the validation of the artificial neural network model. The optimum obtained ANN is a twolayer feed-forward network with 12 neurons in the hidden layer. The results show the ability of the proposed method for prediction of the VLE is more accurate and faster than using the PR equation of state.

کلمات کلیدی:

Vapor-Liquid Equilibrium, Artificial Neural Network, Methanol, Carbon dioxide, Equation of state