

عنوان مقاله:

An Efficient Method for Predicting Natural Gas Compressibility Factor

محل انتشار:

هفتمین کنگره ملی مهندسی شیمی (سال: 1390)

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نویسندگان:

Ehsan Sanjari - *Department of Chemical Engineering, Faculty of Engineering, University of Kashan, Kashan, Iran*

Ebrahim Nemati Lay - *Department of Chemical Engineering, Faculty of Engineering, University of Kashan, Kashan, Iran*

خلاصه مقاله:

This study presents a new empirical model for quick calculating compressibility factor of natural gas. The model derived from 2918 experimental data of natural gas compressibility factors presented in this study. The new empirical correlation can accurately predict natural gas compressibility factors at variety ranges of pseudo reduced pressure from 0.01 to 15 and pseudo reduced temperatures from 1 to 3. The accuracy of model is compared to commonly used empirical methods used in this work. Results showed that the new proposed correlation has 0.847 of AARD% relative to experimental data. The comparison indicates the superiority of the new method over the other methods used to calculate natural gas compressibility factors

کلمات کلیدی:

Natural gas, Compressibility factor, Correlation, Empirical model

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