

## عنوان مقاله:

Determination of the Reservoir Model from Well Test Data by using Artificial Neural Network

## محل انتشار:

دهمین کنگره ملی مهندسی شیمی ایران (سال: 1384)

تعداد صفحات اصل مقاله: 10

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## خلاصه مقاله:

These days, neural networks have a wide range of usage in different fields of engineering. In this work this method is used to determine the reservoir model. Model identification followed by parameter estimation is a kind of visual process. Pressure Derivative Type curves which show more features are usually used to determine reservoir model, but this identification is based on the shape of the curve not on any calculation. So, it is difficult to change this kind of visual process to an algorithm that can be used by computers. In fact model identification is a pattern recognition which is best done by an Artificial Neural Network. If neural networks are learned successfully, they are able to categorize different shapes to different groups due to their visual characterization. So, these networks are so useful and are used here. In this work it is shown how to train, examine and use neural networks to analyze well test data. Input of neural network is fifty points of normal pressure derivative type curve. Each network is trained based on a specific model. The output of the network is number between zero and one. This number gives the probability of the occurrence of the fed curve to the related model. The tuned model provided a high accuracy.

## کلمات کلیدی:

Reservoir Model, Well Test, ANN

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/23348>

