عنوان مقاله:

Instability Analysis of Miscible Displacements in Porous Media

محل انتشار:

هفتمین کنگره ملی مهندسی شیمی (سال: 1390)

تعداد صفحات اصل مقاله: 9

نویسندگان:

Mohammadreza Shahnazari - *Assistant Professor of Mechanical faculty, K.N.Toosi University of Technology*

Amir Farhang Sotoodeh - *PhD Student of Mechanical faculty, K.N.Toosi University of Technology*

Mehrangiz Ghazi - *Department of Mechanical Engineering Islamic Azad University,Takestan Branch, Takestan, Iran*

خلاصه مقاله:

Stability analysis of miscible displacement has several applications in industries such as oil recovering and ground water tables. In this article an analytical solution based on Tan and Homsy's results for stability analysis in t = 0 has been presented. Moreover a novel semi analytical solution based on weighted residual method has been used to solve the Fourier space equations. The results have been shown as σ (disturbance growth rate) - k (wave number) profiles for different values of mobility ratios and times. A comparison between this work and the results of the other researches has been presented.

کلمات کلیدی:

stability analysis ,displacement ,miscible fluid ,porous medium

لینک ثابت مقاله در پایگاه سیویلیکا:

https://civilica.com/doc/341022