



Non-Newtonian Darcy with Homogenization

By Parhusip, Hanna Arini

Condition: New. Publisher/Verlag: LAP Lambert Academic Publishing | Applied in Oil Recovery | Darcy's law and permeability for non - Newtonian fluids in a porous media are shown in this book. Darcy's law is needed to describe a global behaviour of fluids used in the injection of dilute polymer solution in oil recovery. The derivation of permeability provides a model for a permeability's prediction of a porous media. The nonlinearity of the viscosity, the heterogeneity of porous media in the macro scale and the pressure gradient in the micro scale must be taken into account to the obtained of Darcy's law and permeability. Two scale asymptotic expansion is used here as a basic tool in the homogenization method. The model of Darcy's law is obtained by considering that the macroscopic phenomenon and the microscopic phenomenon can be separated. The macroscopic phenomenon is determined by the pressure difference between an injection well and a production well in oil recovery. The microscopic phenomenon is determined by the velocity of fluids in a microscopic sample. For engineers in oil recovery, this book provides new models for the Darcy's law and permeability in the case of an injection of dilute polymers. | Format: Paperback...



[READ ONLINE](#)
[9.13 MB]

Reviews

Complete information for pdf fans. it had been writtern quite perfectly and helpful. You can expect to like how the article writer compose this ebook.
-- **Jack Hirthe**

The book is fantastic and great. it was writtern really perfectly and useful. I discovered this pdf from my i and dad suggested this book to learn.
-- **Dr. Cordie Upton III**