STUDY OF IMBIBITION PHENOMENON ARISING IN IMMISCIBLE PHASE FLOW THROUGH HOMOGENEOUS POROUS MEDIA

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ABSRACT

The present paper deals with the phenomenon of imbibitions in two immiscible phase flow trough homogeneous porous media. When a porous medium is filled with some fluid which preferentially wets the medium then there is a spontaneous flow of the resident fluid from the medium. Such a phenomenon arise due to the difference in the wetting abilities of the fluid which is called counter-current Imbibition. The governing equation to this phenomenon is a partial differential equation. The solution is obtained by using Finite Difference Method.