

عنوان مقاله:

Analytical Solution for Influence of Yield Stress on Two Phase Stratified Flow through the Pipe

محل انتشار:

پنجمین کنگره بین المللی مهندسی شیمی (سال: 1386)

تعداد صفحات اصل مقاله: 9

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خلاصه مقاله:

For two immiscible fluids in steady state, stratified laminar, fully developed flow which one of them is Newtonian and the other is Bingham plastic the motion equations in horizontal pipe with appropriate boundary condition have been solved analytically. Velocity distribution for two phases and the location of plug region related to Bingham plastic fluid have been reported. The results show that the non-Newtonian rheological properties have negligible effects on two phase velocity profile.

کلمات کلیدی:

Analytical, stratified, two-phase, Bingham plastic, non-Newtonian

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