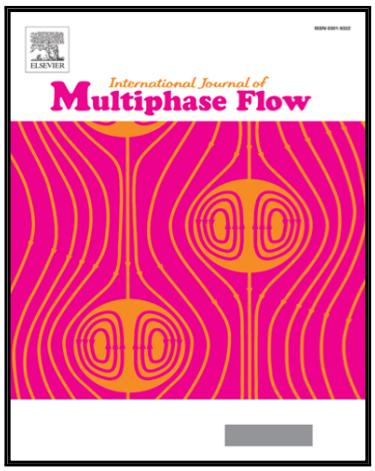

Characteristics of stratified flows of Newtonian/non-Newtonian shear-thinning fluids

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Highlights

- Exact solution for laminar stratified flow of Newtonian/Carreau fluid is obtained
- The effect of the rheology on two-phase flow characteristics is studied
- Two-phase stratified flow can behave like the liquid is Newtonian
- Boundaries of multiple solution regions are identified and mapped
- Two-Fluid model closures are discussed for this case