### RESEARCH PAPERS

湍流-层流气液分层流的模型

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摘要 The time-dependent liquid film thickness and pressure drop are measured by using parallel-

wire conduc tance probes and capacitance differential-pressure transducer. A mathematical model with iterative procedure to calculate holdup and pressure drop in horizontal and inclined gas-liquid stratified flow is developed. The predictions agree well with over a hundred experimental data in 0.024 and 0.04 m diameter pipelines.

关键词 two-phase flow stratified flow holdup pressure drop 分类号

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## A Model of Turbulent-Laminar Gas-Liquid Stratified Flow

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Abstract The time-dependent liquid film thickness and pressure drop are measured by using parallelwire conduc tance probes and capacitance differential-pressure transducer. A mathematical model with iterative procedure to calculate holdup and pressure drop in horizontal and inclined gas-liquid stratified flow is developed. The predictions agree well with over a hundred experimental data in 0.024 and 0.04 m diameter pipelines.

**Key words** two-phase flow; stratified flow; holdup; pressure drop

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