

多相流

采用压力传感技术测量鼓泡床中流体力学参数

张同旺, 靳海波, 何广湘, 杨索和, 佟泽民

北京石油化工学院化工系, 北京 102617; 清华大学化学工程系, 北京 100084

收稿日期 2003-2-21 修回日期 2003-5-12 网络版发布日期 2008-9-1 接受日期

摘要

关键词 [压力传感器](#) [气含率](#) [大气泡分数](#) [小气泡分数](#) [气泡速度](#)

分类号

APPLICATION OF PRESSURE TRANSDUCING TECHNOLOGY TO MEASUREMENT OF HYDRODYNAMICS IN BUBBLE COLUMN

ZHANG Tongwang, JIN Haibo, HE Guangxiang, YANG Suohe, TONG Zemin

Abstract

Based on the multi-class bubble model and the assumption that bubbles rise in plug flow during dynamic gas disengagement, the function between gas holdup and time was obtained by using the pressure transducing technology. The plot obtained by the model agreed with the plot obtained by experiment. The pressure transducing technology is shown to be a good method for the measurement of hydrodynamics in a bubble column. The changes of gas holdup, large bubble holdup and small bubble holdup, bubble rising velocity with superficial gas velocity and liquid viscosity were obtained by using dynamic gas disengagement.

Key words [pressure transducer](#) [gas holdup](#) [large bubble holdup](#) [small bubble holdup](#) [bubble rising velocity](#)

DOI:

通讯作者 靳海波 jinhaibo@bipt.edu.cn

扩展功能

本文信息

▶ [Supporting info](#)

▶ [PDF\(426KB\)](#)

▶ [\[HTML全文\]\(0KB\)](#)

▶ [参考文献](#)

服务与反馈

▶ [把本文推荐给朋友](#)

▶ [加入我的书架](#)

▶ [加入引用管理器](#)

▶ [复制索引](#)

▶ [Email Alert](#)

▶ [文章反馈](#)

▶ [浏览反馈信息](#)

相关信息

▶ [本刊中 包含“压力传感器”的相关文章](#)

▶ [本文作者相关文章](#)

- [张同旺](#)
- [靳海波](#)
- [何广湘](#)
- [杨索和](#)
- [佟泽民](#)