Institute of Chemical Engineering

Novel Identifier of Transitions in Bubble Columns Operated with Water and Aqueous Alcohol Solutions

Publication date:	16.06.2023
Publication title:	Novel Identifier of Transitions in Bubble Columns Operated with Water and Aqueous Alcohol Solutions
Authors:	Stoyan Nedeltchev, et al.
Journal information:	Chemical Engineering and Technology

The accurate identification of the transition velocities Utransin bubble columns(BCs) is important for their effective design, operation, and scale-up. In this work,a novel parameter, namely, the new hybrid index (NHI), was developed and suc-cessfully applied to gas holdup and pressure fluctuations recorded in various BCs operated with water and aqueous solutions of alcohols (ethanol and propan-2-ol).The firstUtranswas identified on the basis of a well-pronounced local NHI mini-mum, whereas the secondUtranswas distinguished by the point from which theNHI profile levels off. It was concluded that the mainUtransdepend on the type ofgas-liquid system and sparger used. A set of severalUtransis reported.

Metryczka

Published by:	Marek Tańczyk
Published at:	08.05.2026 13:53
Number of views:	4