

# Institute of Chemical Engineering

Adres artykułu: <https://iich.gliwice.pl/en/article/identification-of-constant-and-stable-main-transition-velocity-in-bubble-column-reactors>

## Identification of constant and stable main transition velocity in bubble column reactors

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<b>Publication title:</b>	<a href="#">Identification of constant and stable main transition velocity in bubble column reactors</a>
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Abstract: This work presents new results about the reliable identification of the main transition velocity  $U_{\text{trans-1}}$  in different bubble columns (0.1 – 0.46 m in inner diameter) equipped with several perforated plate gas distributors. Two different gas-liquid systems (air-water and air-therminol LT) have been used. The most important finding in this work is that  $U_{\text{trans-1}}$  (end of the homogeneous regime) occurs at  $0.04 \text{ m}\cdot\text{s}^{-1}$  irrespective of the operating conditions studied. For the  $U_{\text{trans-1}}$  identification, the following parameters have been used: Kolmogorov and reconstruction entropies, degree of randomness and information entropy.

## Attachments:

[Zeszyt-24-2020](#) pdf, 3.25 MB

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Tagi: bubble columns, flow regime identification, main transition velocity, entropy analysis

## Metryczka

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