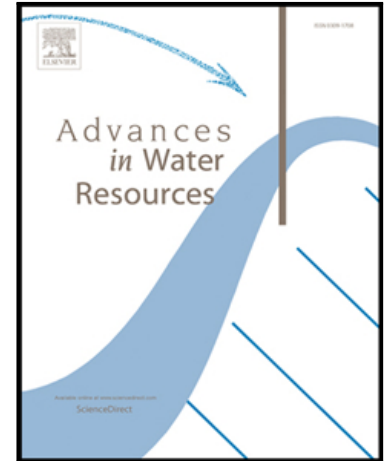


Accepted Manuscript

Pore-scale analysis of the minimum liquid film thickness around elongated bubbles in confined gas-liquid flows

M. Magnini, A.M. Beisel, A. Ferrari, J.R. Thome

PII: S0309-1708(17)30430-X
DOI: [10.1016/j.advwatres.2017.08.020](https://doi.org/10.1016/j.advwatres.2017.08.020)
Reference: ADWR 2933



To appear in: *Advances in Water Resources*

Received date: 27 April 2017
Revised date: 31 August 2017
Accepted date: 31 August 2017

Please cite this article as: M. Magnini, A.M. Beisel, A. Ferrari, J.R. Thome, Pore-scale analysis of the minimum liquid film thickness around elongated bubbles in confined gas-liquid flows, *Advances in Water Resources* (2017), doi: [10.1016/j.advwatres.2017.08.020](https://doi.org/10.1016/j.advwatres.2017.08.020)

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Highlights

- Long bubbles transported by liquid within micro-pores present surface undulations;
- The undulations are induced by the interplay among viscous, capillary and inertial forces;
- Computational and theoretical models are used to investigate long bubbles flows;
- The liquid film thins significantly upon the undulation crests;
- Undulations generate capillary forces that promote detachment of wall-adhering colloids.

Download English Version:

<https://daneshyari.com/en/article/5763682>

Download Persian Version:

<https://daneshyari.com/article/5763682>

[Daneshyari.com](https://daneshyari.com)