

Accepted Manuscript

Title: Hydrodynamics of Newtonian and non-Newtonian liquids in internal-loop airlift reactors

Author: Caroline E. Mendes Alberto C. Badino

PII: S1369-703X(16)30007-9
DOI: <http://dx.doi.org/doi:10.1016/j.bej.2016.01.007>
Reference: BEJ 6379

To appear in: *Biochemical Engineering Journal*

Received date: 14-8-2015
Revised date: 23-11-2015
Accepted date: 7-1-2016



Please cite this article as: Caroline E.Mendes, Alberto C.Badino, Hydrodynamics of Newtonian and non-Newtonian liquids in internal-loop airlift reactors, Biochemical Engineering Journal <http://dx.doi.org/10.1016/j.bej.2016.01.007>

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.

Hydrodynamics of Newtonian and non-Newtonian liquids in internal-loop airlift reactors

Caroline E. Mendes, Alberto C. Badino*

Chemical Engineering Graduate Program

Federal University of São Carlos

Cx. Postal 676

CEP 13565-905

São Carlos - SP

Brazil

*Communicating author: badinojr@ufscar.br

Tel.: + 55 16 33518001

Fax: + 55 16 33518266

Highlights

Influences of driving force ($\varepsilon_R - \varepsilon_D$) and energy loss on liquid velocity were assessed.

Linear liquid velocity (V_{LR}) of non-Newtonian fluids was higher in 10 L SCA reactor.

Regional gas hold-ups and V_{LR} of Newtonian fluids were higher in 10 L DTA reactor.

Liquid velocity of Newtonian fluids was influenced by energy loss in the bottom.

Download English Version:

<https://daneshyari.com/en/article/6483971>

Download Persian Version:

<https://daneshyari.com/article/6483971>

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