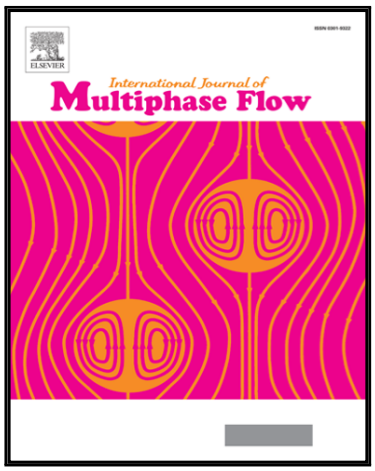

Experimental and numerical investigation on slug initiation and initial development behavior in hilly-terrain pipeline at a low superficial liquid velocity

Pengbo Yin , Xuewen Cao , Yuhao Li , Wen Yang , Jiang Bian

PII: S0301-9322(17)30391-9
DOI: 10.1016/j.ijmultiphaseflow.2018.01.004
Reference: IJMF 2712

To appear in: *International Journal of Multiphase Flow*

Received date: 21 June 2017
Revised date: 4 January 2018
Accepted date: 4 January 2018

Please cite this article as: Pengbo Yin , Xuewen Cao , Yuhao Li , Wen Yang , Jiang Bian , Experimental and numerical investigation on slug initiation and initial development behavior in hilly-terrain pipeline at a low superficial liquid velocity, *International Journal of Multiphase Flow* (2018), doi: 10.1016/j.ijmultiphaseflow.2018.01.004

Highlights

- Slug flow experiments at a low liquid velocity in hilly-terrain pipeline are conducted.
- A numerical simulation model is proposed for slug flow prediction.
- The slug initiation mechanisms around the elbow are discussed.
- Pressure drop and liquid holdup signals are presented for slug flow description.