Accepted Manuscript

Wake structures behind an oscillating bubble rising close to a vertical wall

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 PII:
 S0301-9322(16)30512-2

 DOI:
 10.1016/j.ijmultiphaseflow.2017.02.004

 Reference:
 IJMF 2540

To appear in: International Journal of Multiphase Flow

Received date:28 August 2016Revised date:9 January 2017Accepted date:5 February 2017

Please cite this article as: Joohyoung Lee, Hyungmin Park, Wake structures behind an oscillating bubble rising close to a vertical wall, *International Journal of Multiphase Flow* (2017), doi: 10.1016/j.ijmultiphaseflow.2017.02.004

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Highlights

- Temporal and spatial variations in the wake structures behind a rising bubble near the wall were investigated in detail.
- High-speed two-phase particle image velocimetry is used to measure the evolution of bubble wake.
- Lagrangian streamwise vorticity fields in the bubble wake have been reconstructed.
- A model for the convection velocity of the bubble wake vortex was proposed and applied.
- Additional path variation due to the vertical wall was explained in terms of wake-wall interaction.

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