

## Accepted Manuscript

Numerical simulation of axisymmetric drop formation using a coupled level set and volume of fluid method

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PII: S0301-9322(15)30039-2  
DOI: [10.1016/j.ijmultiphaseflow.2016.04.002](https://doi.org/10.1016/j.ijmultiphaseflow.2016.04.002)  
Reference: IJMF 2370



To appear in: *International Journal of Multiphase Flow*

Received date: 9 September 2015  
Revised date: 2 February 2016  
Accepted date: 3 April 2016

Please cite this article as: I. Chakraborty , M. Rubio-Rubio , A. Sevilla , J.M. Gordillo , Numerical simulation of axisymmetric drop formation using a coupled level set and volume of fluid method, *International Journal of Multiphase Flow* (2016), doi: [10.1016/j.ijmultiphaseflow.2016.04.002](https://doi.org/10.1016/j.ijmultiphaseflow.2016.04.002)

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## Highlights

- The axisymmetric formation of drops is presented numerically.
- An interface capturing code based on a CLSVOF method is used to perform numerical simulations.
- The present computations cover the rich dynamics of dripping, jetting and the transition of different responses.
- The present results are compared successfully with the experimental results of previous investigation.
- The present predicted results show more accurate than the numerical results obtained from 1D simulations of previous investigation.
- The existence of new dynamics period-2 with satellite (P2S) response is shown.

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