

Accepted Manuscript

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PII: S0894-1777(18)30158-4

DOI: <https://doi.org/10.1016/j.expthermflusci.2018.02.006>

Reference: ETF 9367

To appear in: *Experimental Thermal and Fluid Science*

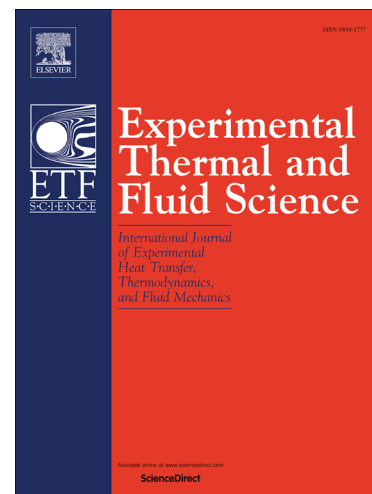
Received Date: 14 May 2017

Revised Date: 20 December 2017

Accepted Date: 6 February 2018

Please cite this article as: M. Sadat Salehi, M. Taghi Esfidani, H. Afshin, B. Firoozabadi, Experimental investigation and comparison of Newtonian and non-Newtonian shear-thinning drop formation, *Experimental Thermal and Fluid Science* (2018), doi: <https://doi.org/10.1016/j.expthermflusci.2018.02.006>

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Experimental investigation and comparison of Newtonian and non-Newtonian shear-thinning drop formation

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Highlights

- Newtonian and non-Newtonian shear-thinning drop formation in air in the dripping regime is examined experimentally
- The effects of injection flow rate and the degree of shear-thinning on the drop formation process is investigated
- Various parameters of the dynamics of the drop formation, such as drop elongation length, minimum neck diameter, current contact angle, and primary drop volume, are studied.
- Newtonian and non-Newtonian drop profiles are compared with each other.
- Various phenomena during the drop formation are analyzed.

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