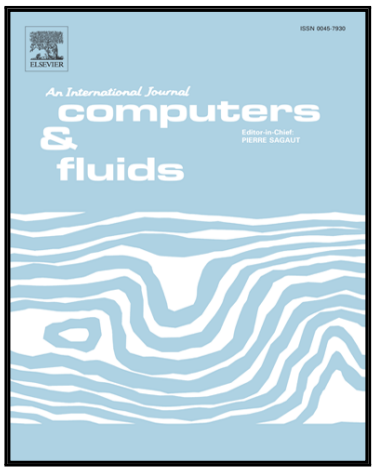

Simulation of the Liquid Break-up at an AdBlue Injector with the Volume-of-Fluid method followed by Off-Line Coupled Lagrangian Particle Tracking

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PII: S0045-7930(17)30330-4
DOI: 10.1016/j.compfluid.2017.09.003
Reference: CAF 3597

To appear in: *Computers and Fluids*

Received date: 10 January 2017
Revised date: 28 August 2017
Accepted date: 3 September 2017

Please cite this article as: Wilfried Edelbauer , Felix Birkhold , Thorsten Rankel , Zoran Pavlovic , Patrick Kolar , Simulation of the Liquid Break-up at an AdBlue Injector with the Volume-of-Fluid method followed by Off-Line Coupled Lagrangian Particle Tracking, *Computers and Fluids* (2017), doi: 10.1016/j.compfluid.2017.09.003

Highlights

- Volume-of-Fluid simulations predict the characteristic of an industrial low-pressure injector in terms of droplet size distribution and mean diameters.
- Performed experiments provide spray visualization through macro imaging and analysis of the droplet size spectrum though laser diffraction measurements.
- Method for off-line coupling between Volume-of-Fluid and Lagrangian particle simulations developed.
- The influence of the flow pattern in the nozzle orifice on the primary break-up is investigated for three different injection pressures.