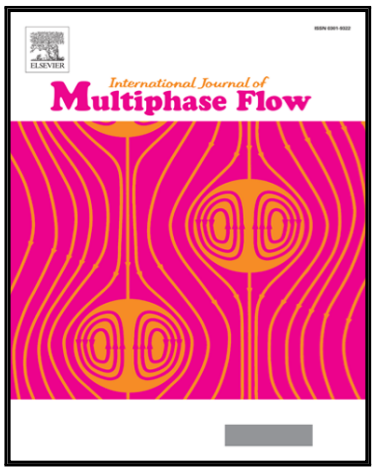

Experimental Study of Direct Contact Condensation of Steam Jet in Water Flow in a Vertical Pipe with Square Cross Section

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Highlights

- An experimental investigation of DCC of steam jet in water flow was performed.
- Three main steam plume regimes (chugging, stable, and oscillatory) was identified.
- A three-dimensional regime map was introduced based on experimental data.
- Steam mass flux was found to be the most effective parameter on this phenomenon.
- Empirical correlations for the stable regime of the steam plume were suggested.