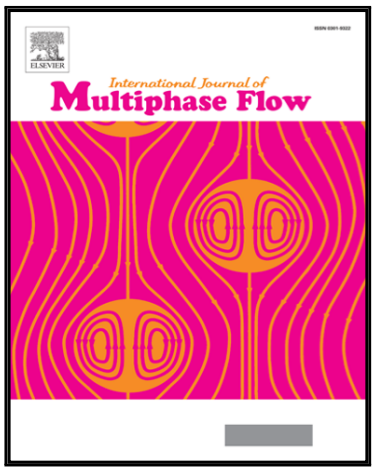

Study of transient heat transfer and synchronized flow visualizations during sub-cooled flow boiling in a small aspect ratio microchannel

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Highlights

- Transient heat transfer coefficient and video-frames are correlated.
- Thin film evaporation mechanism led to peaks in heat transfer coefficient.
- Peak values were influenced by distance of bubble incipience and downstream events.
- Heat transfer coefficient during passage of liquid slugs was relatively lower.