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Title: Experimental study on LiCl solution falling-film generation process outside a vertical tube

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Yonggao Yin and Xiaosong Zhang are professors in the school of Energy and Environment in Southeast University in Nanjing, China, and are also an investigator in the Ministry of Education of Key Laboratory of Energy Thermal Conversion and Control in Southeast University.

Zhiqi Liang and Mengfei Xu are graduate students in the School of Energy and Environment in Southeast University.

This paper presents an experimental investigation of LiCl-H₂O generation process for solar driven two-stage refrigeration cycle, and is the extending of the previous work "A novel low-grade heat-driven absorption refrigeration system with LiCl-H₂O and LiBr-H₂O working pairs. International Journal of Refrigeration, 2015, 58, 219-234.", which is the thermodynamic analysis on the proposed two-stage absorption refrigeration cycle driven by low-grade solar energy.

Highlights:

- An experimental investigation of LiCl solution falling film generation outside a vertical tube was conducted
- Discloses the mass transfer behavior of falling film LiCl aqueous in the generation process during utilization of low grade heat
- Compare effect of the vertical falling-film type generation process using different solutions

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Experimental study on LiCl solution falling-film generation process outside a vertical tube

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