

Abstract Submitted
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Flow patterns in free liquid film exposed to temperature gradient ICHIRO UENO, TAKAMITSU TORII¹, TOSHIKI WATANABE, Tokyo University of Science, INTERFACIAL THERMO-FLUID DYNAMICS LAB TEAM — Thermocapillary-driven flow induced in a free thin liquid film under a temperature gradient parallel to the free surfaces is examined with experimental and numerical approaches. Under a small temperature gradient, a two-dimensional flow inside the film is realized in which the fluid returns in the middle region of the film. By increasing the temperature gradient, instability takes place to realize a three-dimensional flow. The authors will introduce a unique flow pattern in the presentation.

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