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Nonclassical Thermomigration of an Air Bubble DOMINIK MICHLER, RUDOLF SPRIK, PETER SCHALL, DANIEL BONN, Soft Matter, Van der Waals-Zeeman Instituut, Universiteit van Amsterdam, SHELL COLLABORATION — We study air bubbles confined in capillaries with a temperature gradient. Classically, air bubbles move in a temperature gradient due to decreased surface tension at higher temperatures, creating a net surface traction towards the cold pole, pushing the bubble towards the hot pole for mass conservation. Here we report non-classical thermo-migration of confined air bubbles: in the presence of surfactant the bubbles can go the other way.

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