

||||| 小特集 1 : マランゴニ対流 |||||
(解説)

環状液層内のマランゴニ対流

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Marangoni Convection in Annular Liquid Pools

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Abstract

Experimental and numerical researches on Marangoni convections in thin layer of low and high Pr number fluids in annular pools are reviewed. First, the Marangoni instability in thin layers of liquids during heat or mass transfer through interface is reviewed very briefly in order to distinguish them from the hydrothermal wave type thermocapillary flow instability. Secondly, hydrothermal wave type instabilities in rectangular liquid pools are reviewed very briefly. Then, observed and numerically reproduced hydrothermal wave type instabilities in annular pool of silicon melt and silicone oil are reviewed and explained in detail.