

عنوان مقاله:

Experimental study of liquid film electrohydrodynamic conduction pumping average velocity and efficiency in different temperatures

محل انتشار:

بیستمین کنفرانس سالانه مهندسی مکانیک (سال: 1391)

تعداد صفحات اصل مقاله: 4

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خلاصه مقاله:

Electrohydrodynamic (EHD) conduction pumping of free surface liquid film, using flush electrodes, has been investigated experimentally for various film temperatures. Average velocity, electrodes current and conduction pumping efficiency of free surface liquid film in different film thicknesses and temperatures have been investigated and the best operating conditions have been presented. Results show that current in third of the temperatures on the flush electrodes is the same. As applied voltage increases, obviously, there is a significant difference in average velocity by variation of temperature. Also, In 44 and 47 °C film average temperatures, the percentage of enhancement rise up respectively to 18.2% and 31% for 4mm film thickness, 15.2% and 44.4% for 6mm film thickness and 16.7% and 35.1% for 8mm film thickness

کلمات کلیدی:

liquid film, electrohydrodynamic, velocity, efficiency, temperature

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