

Pulsed Vortex Flow in Low-Temperature Range Heat Pipes

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Abstract : The work presents part calculation and part experimental research of the intensification of heat-transfer characteristics of medium-temperature heat pipes. Presented is a vapour jet nozzle, similar to the Laval nozzle, surrounded by a capillary-porous insert along the full length of the heat pipe axial to the direction of heat flow. This increases velocity of the vapour flow, heat-transfer coefficient and pulse rate of two-phase vapour flow.

Keywords : medium-temperature range heat pipes, capillary-porous insert, capillary steam injectors, Laval nozzle, condensation sensor

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