

ABSTRACT

Condenser-evaporator tube, in whose interior flows a vapor to be condensed and over which flows a liquid to be evaporated, where both inside and outside faces of this tube are covered with capillary structures configured for the formation of liquid menisci having a contact angle smaller than 90° where the liquid-vapor interface curves, which allows capillary condensation inside the tube and evaporation on the outside face at the upper end (25) of the liquid menisci where the liquid layer is thinnest and the evaporation most efficient.