

# **MATHEMATICAL MODEL OF A DIRECT CONTACT HEAT EXCHANGER WITH ACTIVE PACKING OF HEAT PIPES**

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## **ABSTRACT**

The steady incompressible flow has been solved for a direct contact heat exchanger with active packing of heat pipes (DCHEAHP). The governing equations are those of heat balance, convective mass-transfer, heat transmission and convective heat- and mass-transfer on the side of gas-vapour flow. These equations have been solved and verified by laboratory tests.

## **REFERENCES**

- [1] ILIEV I K., Investigation of heat and mass transfer processes in direct contact heat exchangers with active packing, Dissertation work for acquiring a doctor's degree, Ruse, 1993
- [2] VASILIEV L. L., Heat exchangers with heat pipes, Minsk, 1981