SINGLE FLOW CIRCUIT HEAT EXCHANGE DEVICE FOR PERIODIC POSITIVE AND REVERSE DIRECTIONAL PUMPING

ABSTRACT

The present invention discloses that the temperature distribution status between the fluid and the heat exchanger or the full heat exchanger is improved by periodically changing the flow directions of the positive or reverse directional pumping fluid, wherein the positive or reverse directional pumping fluid is passed through the heat exchanger inside fluid pump, or through the heat exchanger being interposed or coated with desiccant material, or the heat exchanger itself additionally having moisture absorbing function thereby constituting the full heat exchange functions of thermal energy recovery and dehumidification effect as well as reducing the disadvantages of impurity accumulations at fixed flow direction.

FIG. 4 for publication