Calculation of the phase in the heat storage using phase change materials with an intermediate heat carrier

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The paper considers some change-estimating relationships of both specific and whole masses of the phase with heat-accumulating materials in the framework of one-dimensional models. They are considered to be important for the final stage of charging and discharging modes in the heat storage using phase change materials. This heat storage is characterized by a certain area, in which the phase transition is performed completely in the capsule with heat-accumulating materials. The authors define the speed of the boundary displacement, which separates single-phase and two-phase regions. They are necessary to describe the final stage of charging or discharging modes. It may take much more time to complete the final stage than to conduct the first one.

Keywords: *heat storage, charging, discharging, phase transition, liquid phase, solid phase.*

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