

ABSTRACT

Provided is an apparatus and method for transferring or exchanging thermal energy between two thermal reservoirs, for converting energy from thermal energy into another form of energy, or for converting energy from another form of energy into thermal energy. A body force per unit mass generating apparatus can be employed to modify a specific heat capacity of a working material. A work exchange apparatus, such as a compressor expander, can be employed to do work on the working material, or allow the working material to do work on the work exchange apparatus.