

# Experimental Study of Thermoelectric Cooling through Combined Peltier Cooling Module and Forced Air Convection through Clay Pot

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**Abstract:** Cooling through evaporation is an ancient effective method of lowering temperature. The simple clay pot refrigerator is ideally suited for preserving vegetarian food and water in hot and dry climates. The refrigeration takes place by evaporation through the porous pot material. Due to the latent heat of vaporization temperature drops inside the pot of the water and the air is cooled by circulation through the copper tubes inserted in pot in coil form to transfer the heat from low temperature to high temperature by forced circulation method through blower fan. The extra cooling effect for instant cooling is provided by combine thermometric cooling device peltier module the thermal analysis is detail discussed here.

**Keywords:** vaporization, Refrigeration, Temperature, Porous, Free and forced convection