Abstract

The ever growing demand for electricity needs to be fulfilled with due cognizance of the environment factor and recycling energy as effectively as possible. This paper proposes the harnessing of the heat energy wasted in household appliances all of which can generate power in milli watt range. The most promising equipment for the supply of waste heat which can generate power over 1 watt seems to be the gas stove, the experimental feasibility analysis of which is the main target of this paper. Technology used for this end is called TEG which stands for Thermo Electric Generators based on the Seebeck effect. This device makes use of the temperature gradient across a TEG to generate an electromotive force (emf) across it. TEGs are increasingly in vogue due to lack of mechanical parts, low maintenance and high durability proved in space missions over the past decades. The focus of this paper is rather on the creation of the highest possible temperature difference to produce the highest possible power output.

References

High Efficient Seebeck Thermoelectric Device for Power System Design and Efficiency Calculation: A Review of Potential Household Appliances


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