Title:	Thermoelectric generator in endoreversible approximation:
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Abstract:	We revisit the optimal performance of a thermoelectric generator within the endoreversible approximation, while imposing a finite physical dimensions constraint in the form of a fixed total area of the heat exchangers. Our analysis is based on the linear-irreversible law for heat transfer between the reservoir and the working medium, in contrast to Newton's law usually assumed in literature. The optimization of power output is performed with respect to the thermoelectric current as well as the fractional area of the heat exchangers. We describe two alternate designs for allocating optimal areas to the heat exchangers. Interestingly, for each design, the use of linear-irreversible law yields the efficiency at maximum power in the well-known form $2\eta C/(4-\eta C)$, earlier obtained for the case of thermoelectric generator under exoreversible approximation, i.e., assuming only the internal irreversibility due to Joule heating. On the other hand, the use of Newton's law yields Curzon-Ahlborn efficiency.
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