

## Comparative Study of Two New Configurations of Solar Photovoltaic Thermal Collectors

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**Abstract :** Hybrid photovoltaic thermal (PV/T) solar system comprises a solar collector which is disposed on photovoltaic solar cells. The disadvantage of a conventional photovoltaic cell is that its performance decreases as the temperature increases. Indeed, part of the solar radiation is converted into electricity and is dissipated as heat, increasing the temperature of the photovoltaic cell with respect to the ambient temperature. The objective of this work is to study experimentally and implement a hybrid prototype to evaluate electrical and thermal performance. In this paper, an experimental study of two new configurations of hybrid collectors is exposed. The results are given and interpreted. The two configurations of absorber studied are a new combination with tubes and galvanized tank, the other is a tubes and sheet.

**Keywords :** experimental, photovoltaic, solar, temperature

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