Title: **Design development and performance evaluation of photovoltaic/thermal (PV/T) air base solar collector**

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Abstract

Recently, photovoltaic/thermal (PV/T) solar collectors are popular technologies towards harvesting solar energy. A PV/T collector is a combination of photovoltaic and solar thermal components integrated into one system that capable of producing both electrical and thermal energy simultaneously. The concept and design of a PV/T collector are being developed in order to improve the electrical efficiency of a photovoltaic module at high temperature. This paper elaborates literatures of the design developed and the performances of a PV/T air base collector. Early research works in this area until recently are focusing on their design characteristics and results. This report also covers research works on future development of a PV/T collector as a building integrated photovoltaic/thermal (BIPVT) system. It clearly shows that, by appropriate architectural design and configuration, the future of a PV/T collector can be encouraging as an alternative application in the residential, industrial and commercial buildings.