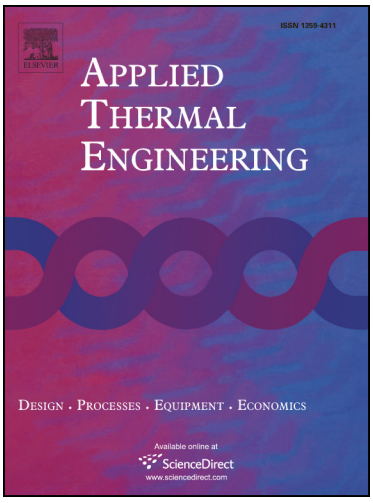

Photon application in the design of sustainable buildings to console global energy and environment

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PII: S1359-4311(18)31513-8
DOI: https://doi.org/10.1016/j.applthermaleng.2018.05.085
Reference: ATE 12224

To appear in: *Applied Thermal Engineering*

Received Date: 8 March 2018
Revised Date: 21 April 2018
Accepted Date: 20 May 2018

Please cite this article as: F. Hossain, Photon application in the design of sustainable buildings to console global energy and environment, *Applied Thermal Engineering* (2018), doi: https://doi.org/10.1016/j.applthermaleng.2018.05.085

Photon application in the design of sustainable buildings to console global energy and environment

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Abstracts

Photon energy has been implemented to design the sustainable building where at least 25% of its exterior curtain skin wall could be used as the acting Photovoltaics (PV) panel to trap the solar energy to transform into electricity to satisfy energy demand for a building itself without any outsource connection. Given the current rate of conventional fuel consumption, atmospheric greenhouse gas emission (GHGs) increasing rapidly where building sector along responsible for 40% GHGs emission. These GHGs ultimately causing environmental vulnerability such as climate change, stratospheric ozone depletion, acid rain, flooding, and air toxicity which threatening to survive all living being on Earth. Therefore, the mechanism of photophysical transformation by the acting PV panel of the building exterior skin in response to solar radiation shall indeed would be a cutting-edge technology to console the global energy demand and mitigate the climate change perplexity dramatically.

Keywords: Global environmental vulnerability, solar radiation, PV panel acting build skin, Clean energy production, and Climate change mitigation