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Current Scenario of Building-Integrated Photovoltaics (BIPVs)

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Abstract

The Building-incorporated photovoltaics (BIPVs) are photovoltaic (PV) materials that are used to supplant traditional/conventional building materials that are being used in construction of building covering, for instance, the roof tiles, front windows, or veneers. Further, they represent a strong, versatile and eco-friendly means for attaining the goal of ever increasing power demand for zero energy and zero emission buildings of the adjacent future. In this regard, BIPVs may offer an aesthetically pleasing, costeffective and real-world solution, to integrate photovoltaic solar cells (BIPVs) reaping solar radiationto produce electricity along with climate protection of the buildings. This research work précises thecurrent stage of the development in the Building-integrated Photovoltaic systems and the scope of future research in building integration of photovoltaics, incorporating the latest and innovational ideas and features of BIPVs which include BIPV tiles& modules, BIPV foils,and solar power cell glazing products.

Keyword: Building-integrated photovoltaic, Eco-friendly, Zero energy, Zero emission, BIPVs, Solar cell,, Recent development