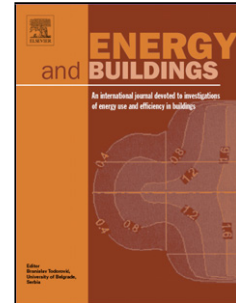


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G-value indoor characterization of semi-transparent photovoltaic elements for building integration: new equipment and methodology

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Abstract

Whereas the modern architecture trends to an extensive use of glazing elements, buildings are increasingly required to minimize the external energy demand, cutting down the energy needed and covering the residual demand using local energy generation solutions. In this context, the integration of optimized Semi-Transparent Photovoltaic (STPV) elements seems to present a promising energy saving potential, leading to significant reductions of the heating, cooling and lighting loads while the on-site electricity generation is supplied.

In mild climate areas, building glazings are required to perform as solar control systems with a low solar factor in order to avoid overheating. However, g-value is frequently unavailable in the data sheet of the

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