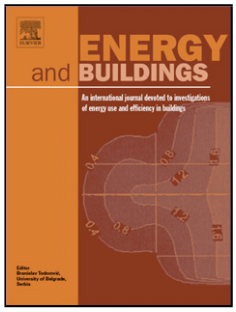

Title: Experimental assessment and model validation of a vertical cooling panel

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Experimental assessment and model validation of a vertical cooling panel

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Keywords:

Heat dissipation, model validation, building integration, energy, architecture

Highlights:

- Novel use of a passive vertical cooling panel is tested.
- The relation of ambient temperature with the panel outlet temperature is assessed.
- A mathematical model of the cooling panel has been developed and validated with experimental data.
- The viability of using north façades for cooling panels is confirmed.

Abstract

The energy used for cooling has increased in recent decades and the predicted future rise in consumption is driving a pressing need for more efficient technologies. Some technologies use