

## Accepted Manuscript

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

Author: Amaia Zuazua-Ros Juan Carlos Ramos César  
Martín-Gómez Tomás Gómez-Acebo



PII: S0378-7788(17)30705-3  
DOI: <http://dx.doi.org/doi:10.1016/j.enbuild.2017.02.062>  
Reference: ENB 7423

To appear in: *ENB*

Received date: 28-9-2016  
Revised date: 23-11-2016  
Accepted date: 27-2-2017

Please cite this article as: A. Zuazua-Ros, J.C. Ramos, C. Martín-Gómez, T. Gómez-Acebo, Experimental assessment and model validation of a vertical cooling panel, *Energy and Buildings* (2017), <http://dx.doi.org/10.1016/j.enbuild.2017.02.062>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

1 Experimental assessment and model validation of a vertical cooling  
2 panel

3

4

5

6 **List of authors and affiliations:**

7

8 **Amaia Zuazua-Ros**

9 **Department of Construction, Building Services and Structures. University of Navarra.**  
10 **Pamplona, Spain**

11

12 **Juan Carlos Ramos**

13 **Department of Mechanical Engineering, Thermal and Fluids Division. Tecnun, University of**  
14 **Navarra. San Sebastian, Spain.**

15

16 **César Martín-Gómez**

17 **Department of Construction, Building Services and Structures. University of Navarra.**  
18 **Pamplona, Spain**

19

20 **Tomás Gómez-Acebo**

21 **Department of Mechanical Engineering, Thermal and Fluids Division. Tecnun, University of**  
22 **Navarra. San Sebastian, Spain.**

23

24 **Keywords:**

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

26

27

28

29 **Highlights:**

30

31

▪ Novel use of a passive vertical cooling panel is tested.

32

▪ The relation of ambient temperature with the panel outlet temperature is assessed.

33

▪ A mathematical model of the cooling panel has been developed and validated with  
34 experimental data.

35

▪ The viability of using north façades for cooling panels is confirmed.

36

37

38

39 **Abstract**

40

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

متن کامل مقاله

دریافت فوری ←

**ISI**Articles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات