



SDI Review Form 1.6

Journal Name:	Advances in Research
Manuscript Number:	Ms_AIR_20496
Title of the Manuscript:	A testing procedure to analyse the effect of window coverings
Type of the Article	Original Research Article

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound.

To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)



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PART 1: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
<u>Compulsory</u> REVISION comments		The authors appreciate the valuable comments and suggestions in regards to the submitted paper and considering those comments, have made appropriate changes and additions.
<u>Minor</u> REVISION comments	Page 4, line 76. The author should state the accuracy of heat flux sensors used for sensing heat flux in the test.	The details added in Section 2. “... the heat flux sensors 100x100mm with sensitivities 25μV/W/m2 installed on an aluminium plates, “
<u>Optional/General</u> comments	Could the U value of the complex glazing system combined the glass, frame and window covering be calculated by the testing procedure proposed in this manuscript?	Thank you very much for the great comment. We considered the calculation of U-values during the study as it is often given when heat transfer through the glass is analyzed. And yes, it can yield accurate results once experimentally measured. However, the window shutters consisting of several blades, tighten over test but still with small gaps, were examined as the window coverings. These gaps allowed the air circulation between the glass pane and space of the testing chamber affecting energy transferred and measured by a heat flux sensor. The heat flux sensor captured the effect of heat transfer (conduction and convection) and air circulation. This allowed us to compare the heat process involved with the high accuracy, in contrast to calculating U-values for the systems along. We also do not have the facilities to measure experimentally R-values (thermal resistance) of



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		<p>windows coverings and wanted to avoid an inaccurate calculation of U-values. Certainly, this can be easily calculated for a glass pane only.</p> <p>In addition, the paper compares the response of various window coverings under exactly the same conditions considering the temperature differences between testing and control chambers as well as energy measured by a heat flux sensor.</p>
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