Experimental Simulations of Ventilation Modes in Double-Skin Envelopes

Author(s): Cătălin-Viorel Popa • Nelu-Cristian Cherecheş • Guillaume Polidori • Stéphane Stephane

Tomme: LII (LVI) | **Fascicle:** 1-2 | 2006
Pages: 125-132

Abstract text:
An experimental study of a heated vertical plane channel, representative of double-skin envelopes, was undertaken. The study was focused on the dynamics of the natural convection flow resulting from the uniform heating of one of the walls on its central part. Only the convective aspects related to natural ventilation are studied by carrying out the experiments in water in order to neglect radiation. Flow visualization techniques made it possible to show the strongly unsteady and three-dimensional character of the resulting flow and to observe the presence of a reverse flow of variable length on the studied range of modified Rayleigh numbers $106 \leq Ra^* \leq 2 \times 107$.

Key Words:
-

View full text PDF

Author(s) Information

Cătălin-Viorel Popa
Affiliation: University of Reims, Champagne-Ardenne, France, Laboratoire de Termomecanique.
Email: -

Nelu-Cristian Cherecheş
Affiliation: „Gheorghe Asachi" Technical University, Jassy, Department of Building Equipment Engineering.
Email: -

Guillaume Polidori
Affiliation: University of Reims, Champagne-Ardenne, France, Laboratoire de Termomecanique.
Email: -

Stéphane Stephane
Affiliation: University of Reims, Champagne-Ardenne, France, Laboratoire de Termomecanique.
Email: -

All documents with a icon require Adobe Acrobat installed on your computer

Current Issue
T. LVI (LX), Fasc. 3, 2010

Browse
by Issues
by Authors

For Authors
Preparing Artworks
Manuscript Submission
Manuscript Template
Journals Name Abbreviation
Copyright Transfer Statement

Abstracted & Indexed
The Bulletin of the Polytechnic Institute of Jassy, Construction. Architecture Section is indexed and abstracted in:
Index Copernicus, ProQuest, Ebsco, DOAJ, BASE, Scientific Commons, DRIVER, WorldWideScience.org, getCITED, ResearchGATE, Ovid LinkSolver, Genamics Journalseek, Electronic Journals Library, WorldCat, Intute.

Ranking
The journal is ranked by the National University Research Council as a B+ quality journal (CNCSIS Code 44).

Search in:
Authors
Search Term >>