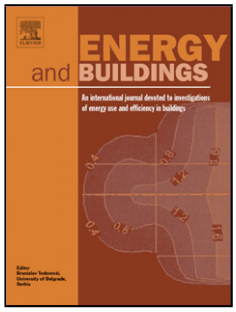

Title: Special Issue on Built Environment Design for Health and Comfort with Energy Efficiency

Author: Jingjing Pei Yuexia Sun

PII: S0378-7788(16)30810-6
DOI: http://dx.doi.org/doi:10.1016/j.enbuild.2016.09.010
Reference: ENB 6999

To appear in: *ENB*

Please cite this article as: Jingjing Pei, Yuexia Sun, Special Issue on Built Environment Design for Health and Comfort with Energy Efficiency, Energy and Buildings http://dx.doi.org/10.1016/j.enbuild.2016.09.010

Editorial –Special Issue on
Built Environment Design for Health and Comfort with Energy Efficiency

Buildings consume significant amount of energy in today's world, to create suitable indoor environments where people spend most of their time. Indoor environments significantly affect people's comfort, health and wellbeing. However, good indoor environment is normally companied with higher energy consumption. Researchers have been doing tremendous work trying to understand the building energy consumption, reduce the building energy consumption without the sacrifice of indoor thermal comfort and air quality.

This special issue (BE Design) summarize the latest research results on thermal comfort and indoor air quality in built environment from the 9th International Symposium on Heating, Ventilation and Air Conditioning and the 3rd International Conference on Building Energy and Environment (ISHVAC-COBEE 2015), held in Tianjin, China on 12–15 July. The topics of this special issue include thermal comfort, and indoor air quality in buildings and cabins.

Aircraft cabin environment is a special indoor environment. Although it owns some special properties such as confined space, high occupancy density and low pressure, the cabin environment research have many similar points with building indoor environment, such as the indoor environment measurement, air pollution source characterization, and air quality control methodology. Therefore, this special issue also includes some papers on the aircraft cabin research progress mainly from a National Basic Research Program of China (The 973 Program).

In this Special Issue, 14 papers on built environment thermal comfort and IAQ are selected, which hopefully provide a snapshot of current research and development interests, including the following subjects:

- Ventilation and indoor air quality, 6 papers
- Indoor thermal comfort and energy, 5papers
- Cabin environment: airflow field, pollutant source and transport, 3 papers

We would like to thank all the authors and reviewers of this special issue, and hope it can give the readers some new thoughts.

Jingjing Pei, Yuexia Sun