

1. Record Nr.	UNINA9910299716803321
Titolo	Proceedings of the 8th International Symposium on Heating, Ventilation and Air Conditioning . Volume 1 Indoor and outdoor environment // Angui Li, Yingxin Zhu, Yuguo Li, editors
Pubbl/distr/stampa	Heidelberg, Germany : , : Springer, , 2014
ISBN	3-642-39584-8
Edizione	[1st ed. 2014.]
Descrizione fisica	1 online resource (xviii, 663 pages) : illustrations (some color)
Collana	Lecture Notes in Electrical Engineering, , 1876-1100 ; ; 261
Disciplina	621.042
Soggetti	Heating Ventilation Air conditioning
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	"ISSN: 1876-1100."
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	""Preface""; ""International Scientific Committee""; ""Organizing Committee""; ""Contents""; ""Part IIndoor Environment""; ""1 Development of a Building Energy a€?Sensitivitya€? Tool to Inform Early-Stage Design Decisions and its Application in China""; ""Abstract""; ""1.1a€?Introduction""; ""1.2a€?Multi-Parameter Single Building Modelling""; ""1.3a€?The Sensitivity Tool""; ""1.4a€?Sensitivity Analysis for Other Chinese Locations""; ""1.5a€?Conclusions""; ""References""; ""2 Evaporative Losses from Retail Gasoline Outlets and Their Potential Impact on Ambient and Indoor Air Quality"" ""Abstract""; ""2.1a€?Introduction""; ""2.2a€?Sources of Evaporative Emissions from Your Corner Gas Station""; ""2.2.1 Working and Breathing Losses""; ""2.2.2 Monitoring and Spill Losses (Residual Loss)""; ""2.2.3 Vehicle Refuelling Loss""; ""2.3a€?Data Sources""; ""2.4a€?Evaporative Loss Algorithm""; ""2.5a€?Results""; ""2.6a€?Implications""; ""References""; ""3 Leverage of Behavioural Patterns of Window Opening and Heating Set Point Adjustments on Energy Consumption and Thermal Comfort in Residential Buildings""; ""Abstract""; ""3.1a€?Introduction""; ""3.2a€?Method"" ""3.2.1 Window Opening and Closing""; ""3.2.2 Thermostat Adjustments""; ""3.2.3 Hybrid Modelling""; ""3.3a€?Results""; ""3.3.1 Window Opening""; ""3.3.2 Energy-Related User Profiles""; ""3.4a€?

Discussion and Conclusion"; ""References""; ""4 Influence of Scattering Pattern on the Insulation Performance of VIP Filler Materials""; ""Abstract""; ""4.1a€?Introduction""; ""4.2a€?Analysis""; ""4.3a€?Results and Discussion""; ""4.3.1 Isotropic Scattering Medium""; ""4.3.2 Backward-Scattering Medium""; ""4.4a€?Conclusions""; ""Acknowledgments""; ""References""
""5 Analysis of Combined Heat Transfer Through Interstitial Materials of VIPs""""Abstract""; ""5.1a€?Introduction""; ""5.2a€?Numerical Scheme""; ""5.3a€?Results and Discussion""; ""5.3.1 Effects of tau L and epsilon w""; ""5.3.2 Effects of Contact Resistance""; ""5.3.3 Effects of Scattering Phase Functions""; ""5.4a€?Conclusion""; ""Acknowledgments""; ""References""; ""6 Experimental and Theoretical Study on the Thermal Environment Based on Simultaneously Model in a Room""; ""Abstract""; ""6.1a€?Introduction""; ""6.2a€?Surface Radiation Heat Transfer Analysis""
""6.2.1 Surface Heat Transfer Analysis by Direct Radiation Absorption""""6.2.2 Surface Heat Transfer Analysis by Gebhart Absorption Coefficient""; ""6.3a€?Establish Simultaneously Solving Mode""; ""6.4a€?Experiment and Analysis of Calculation Example""; ""6.4.1 Model Calculation and Experimental Verification of Different Heat Fluxes""; ""6.4.2 Model Calculation and Experimental Verification of Different Air Volume""; ""6.4.3 Comparison and Analysis Based on Two Kinds of Simultaneously Solving Model""; ""6.5a€?Conclusions""; ""Acknowledgments""; ""References""
""7 Air Distribution and Ventilation Effectiveness in a Room with Floor/Ceiling Heating and Mixing/Displacement Ventilation""

Sommario/riassunto

Proceedings of the 8th International Symposium on Heating, Ventilation and Air Conditioning is based on the 8th International Symposium of the same name (ISHVAC2013), which took place in Xi'an on October 19-21, 2013. The conference series was initiated at Tsinghua University in 1991 and has since become the premier international HVAC conference initiated in China, playing a significant part in the development of HVAC and indoor environmental research and industry around the world. This international conference provided an exclusive opportunity for policy-makers, designers, researchers, engineers and managers to share their experience. Considering the recent attention on building energy consumption and indoor environments, ISHVAC2013 provided a global platform for discussing recent research on and developments in different aspects of HVAC systems and components, with a focus on building energy consumption, energy efficiency and indoor environments. These categories span a broad range of topics, and the proceedings provide readers with a good general overview of recent advances in different aspects of HVAC systems and related research. As such, they offer a unique resource for further research and a valuable source of information for those interested in the subject. The proceedings are intended for researchers, engineers and graduate students in the fields of Heating, Ventilation and Air Conditioning (HVAC), indoor environments, energy systems, and building information and management. Angui Li works at Xi'an University of Architecture and Technology, Yingxin Zhu works at Tsinghua University and Yugu Li works at The University of Hong Kong.
