

**International Vacuum Insulation Symposium 2021 | 11<sup>th</sup> April 2022**

<b>Symposium Registration and refreshments</b>	<b>08:15 – 09:00</b>
<b>Housekeeping instructions</b>	<b>09:00 – 09:05</b>
<b>Inaugural by Prof. Geoff Rodgers</b>	<b>09:05 – 09:15</b>
<b>Chair's Welcome and Introduction by Dr. Harjit Singh</b>	<b>09:15 – 09:30</b>
Opportunities for VIPs in the UK building stock <b>Prof Phil Eames</b>	<b>09:30 – 09:50</b>
Update on VIPA International <b>Sebastian Baars</b>	<b>09:50 – 10:10</b>
Review of 40 years of vacuum insulation research in Würzburg, Germany <b>Roland Caps</b>	<b>10:10 – 10:30</b>
<b>Break + Posters + Exhibition</b>	<b>10:30 – 10:45</b>
<b>Presentation session 1</b>	<b>10:45 – 12:20</b>
<i>Chair: Roland Caps</i>	
Determination of the coupling effect and the thermal accommodation coefficient to describe heat transfer in nanoporous silica for vacuum insulation panels <b>Sebastian Sonnick</b>	<b>10:45 – 11:05</b>
Mechanical optimization of super-insulating silica aerogel composites <b>Genevieve Foray</b>	<b>11:05 – 11:25</b>
Life Cycle Assessment of Vacuum Insulation Panels: Which Core Material Offers the Lowest Environmental Impact? <b>Shahaboddin Resalati</b>	<b>11:25 – 11:45</b>
Novel Low-Cost High-Barrier Laminates for Vacuum Insulation Panels (VIPs) <b>Esra Kucukpinar</b>	<b>11:45 – 12:05</b>
<b>Symposium group photograph</b>	<b>12:05 – 12:20</b>
<b>Lunch + Posters + Exhibition</b>	<b>12:20 – 13:00</b>
<b>Presentation session 2</b>	<b>13:00 – 15:20</b>
<i>Chair: Shahaboddin Resalati</i>	
Comparative energy and cost assessment of Vacuum Insulation Panels (VIPs) for energy retrofitting of office buildings in different climatic conditions <b>Mahmood Alam</b>	<b>13:00 – 13:20</b>
Controllable thermal insulation <b>Jonina Felbinger</b>	<b>13:20 – 13:40</b>
Impact of aeration and deaeration of switchable vacuum insulations on the overall heat conductivity using different core materials and filling gases <b>Lars Erlbeck</b>	<b>13:40 – 14:00</b>
Nanocellular polymers: fabrication techniques and characterization of the thermal conductivity <b>Victoria Bernardo</b>	<b>14:00 – 14:20</b>
Development of Vacuum Insulation Panels based on Date Palm Fibre as core material <b>Tarek Raad</b>	<b>14:20 – 14:40</b>
Energy consumption analysis of thermal insulation walls based on vacuum insulation panels <b>Zongjin Du</b>	<b>14:40 – 15:00</b>

Numerical calculation on thermal performance of glass fibers fumed silica composite core materials vacuum insulation panels <b>Qiong Wu</b>	15:00 – 15:20
<b>Life Time Achievement Awards Presentation</b>	15:45 – 16:00
<b>Break + Posters + Exhibition</b>	15:20 – 15:45
<b>VIPA International Session</b>	16:00 – 17:30
VIPs as super insulation in urban spaces using the example of the "Grand Tower" in Frankfurt/Germany <b>Ronald Ellebrecht</b>	
Development of a new Vacuum Insulated Case for temperature-controlled transportation of pharmaceuticals <b>Hideji Kawarazaki</b>	
VIPs for terrace insulation - Marina Apartments – Regensburg <b>Sebastian Baars</b>	
<b>Discussion among VIPA panel and audience</b>	
<b>Symposium Dinner</b>	19:00

### International Vacuum Insulation Symposium 2021 | 12<sup>th</sup> April 2022

The Latest Developments of VIP in China in Last 2 Years <b>Prof. Zhaofeng Chen</b>	09:00 – 09:20
Super insulation: some R&D contributions to solving industrial problems <b>Prof. Bernard Yrieix</b>	09:20 – 09:40
<b>Presentation session 3</b> <i>Chair: Anshul Paneri</i>	09:40 – 10:20
Simulation of the thermal conductivity $\lambda$ vs moisture content $X_w$ of VIPs with silica core using an Excel recursion tool <b>Özgür Düdükçü</b>	09:40 – 10:00
Long-term hygrothermal monitoring of glass fiber Vacuum Insulation Panels for roof application <b>Stefano Fantucci</b>	10:00 – 10:20
<b>Break + Posters + Exhibition</b>	10:20 – 10:45
<b>Presentation session 4A</b> <i>Chair: Mahmood Alam</i>	<b>Presentation session 4B</b> <i>Chair: Samuel Brunner</i>
Thermal performance of nanostructured insulation materials – a comparison <b>Akos Lakatos</b>	Long-term performance of hydrophobic silica-based advanced porous materials in building applications <b>Gabriele Gartner</b>
Switchable Thermal Insulation for Energy Efficient Building Façades <b>Bastian Buettner</b>	Integrated Vacuum Insulation Panels in Aircraft Industry <b>Vakhtang Latsuzbaya</b>
Experimental testing of the hygrothermal performance of an ETICS with vacuum insulation panels <b>Marcio Paulo Ferreira Goncalves</b>	Opacifying properties of carbon black on perlites tested at 10-70 °C <b>Antony Sara</b>
Long term performance of vacuum insulation panels integrated into building components <b>Antonio J Aldykiewicz Jr</b>	Mechanical properties and thermal conductivity of Nextel™ 720 reinforced porous Al2O3

	composite prepared by sol-gel method <b>Fei Wang</b>	
<b>Lunch + Posters + Exhibition</b>		<b>12:05 – 13:00</b>
<b>Presentation session 5A</b> <i>Chair: Stefano Fantucci</i>	<b>Presentation session 5B</b> <i>Chair: Genevieve Foray</i>	<b>13:00 – 15:00</b>
High temperature thermal insulation aerogels combined with inorganic fibers and aerogels <b>Le Lu</b>	The Critical Impact of Desiccants on the Ageing Rate of Fiberglass VIPs <b>Yoash Carmi</b>	<b>13:00 – 13:20</b>
Thermal conductivity of unidirectional laminated hybrid SiC–Nextel™ 720 fiber-reinforced oxide matrix composites <b>Lixia Yang</b>	Retrofitting balcony doors from the 1950s: feasibility study of VIPs <b>Pär Johansson</b>	<b>13:20 – 13:40</b>
Novel barrier technology of VM-EVOH <b>Hisahi Ishihara</b>	Development of an opacified core material by pyrolysis and investigation of the radiation thermal conductivity by infrared spectroscopy <b>Gamze Unsal-Peter</b>	<b>13:40 – 14:00</b>
Application of vacuum insulation panel for thermal management of electronics under harsh environment <b>Midhun V. C</b>	Analysis of the suitability of using powdered micro and nanocellular polymers as core materials for VIP <b>Ismael Sanchez-Calderon</b>	<b>14:00 – 14:20</b>
Next generation of pressure sensor transponders for quality control in vacuum insulation panel <b>Christian Walk</b>	Short-term thermal performance evaluation of sawdust based vacuum insulation panel core material <b>Mahmood Alam</b>	<b>14:20 – 14:40</b>
Evaluation of condensation characteristics of detached house using Vacuum insulation Panel for building <b>Shohei Sato</b>	TRNSYS modelling of vacuum insulated cold storage for bananas <b>Anshul Paneri</b>	<b>14:40 – 15:00</b>
<b>Break + Posters + Exhibition</b>		<b>15:00 – 15:15</b>
<b>Presentation session 6</b> <i>Chair: Mahmood Alam</i>		<b>15:15 – 16:25</b>
Impacts of Air and/or Vapor Diffusion on Aging of Vacuum Insulation Panel (VIP) <b>Phalguni Mukhopadhyaya</b>		<b>15:15 – 15:35</b>
The effect of barrier films and exposure on the aging of vacuum insulation panels with fumed silica cores <b>Antonio J Aldykiewicz Jr</b>		<b>15:35 – 15:55</b>
Lifetime assessment of VIP at high temperatures <b>Pär Johansson</b>		<b>15:55 – 16:05</b>
VIPs in a cooling application and their monitoring over 14 years with the va-Q-perm method <b>Samuel Brunner</b>		<b>16:05 – 16:25</b>
<b>15<sup>th</sup> IVIS Closing Ceremony</b>		<b>16:25 – 17:00</b>