



# 4th International Nanotechnology Conference & Expo

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## Nanotechnology and the Next Step towards the High-Performance Thermal Insulation Materials of Tomorrow

### Bjorn Petter Jelle

Norwegian University of Science and Technology, Norway  
SINTEF Building and Infrastructure, Norway

### Brief Content List and Topics to be discussed:

- Thermal insulation, where are we now and where do we go?
- Introduction
- Thermal background
- Traditional thermal insulation
- State-of-the-art thermal insulation
- Nanotechnology and thermal insulation
- Possible pathways towards the future thermal insulation
- Is the Knudsen effect the holy grail of thermal insulation?
- Miscellaneous functions and corresponding properties
- Discussions and comparisons of weaknesses and strengths
- Ending remarks

### Biography:

Bjorn Petter Jelle is a professor at the Norwegian University of Science and Technology (NTNU) and a chief scientist at SINTEF Building and Infrastructure. Dr. Jelle's background is as a physicist, chemist and material scientist and examples of current work fields include building physics, materials science, solar radiation, thermal radiation, climate exposure, accelerated climate ageing, solar cells, building integrated photovoltaics, high performance thermal insulation materials, nano materials and electrochromic materials for energy-efficient windows.