



UNSW
SYDNEY



Bringing Material Change to the Way Buildings Consume Energy

Developing advanced reflective cool materials for buildings and cities that significantly decrease the demand for cooling buildings and counterbalance the impact of urban overheating.

Competitive advantage

- The knowledge and expertise to improve environmental quality in deprived urban zones and enhance the sustainability and survivability of low-income households
- A successful track record of:
 - Reducing the surface temperature of materials by up to 15°C
 - Decreasing ambient temperatures by up to 2°C
 - Lowering the cooling energy consumption of buildings by up to 40 per cent

Impact

- High efficiency and low-cost materials reduce the cooling demand of buildings and cities and improve their environmental conditions
- Improving building efficiency reduces the cost to cool buildings and contributes to the reduction of heat-related mortality and morbidity

Successful applications

- Industrial products have been commercialised all around the world
- Collaboration and testing of advanced products with many major industrial companies, like Daikin Chemicals and Isomat

Capabilities and facilities

- A fully-equipped laboratory able to perform any kind of energy and environmental measurements for the development and testing of building materials
- The lab includes a spectrophotometer to measure the spectral characteristics of materials
- An accelerating ageing chamber to perform ageing studies
- Equipment to measure emissivity, thermal conductivity and many other optical and thermal parameters of materials
- Thermal cameras and other thermal measuring equipment

Our partners

- Several construction companies, and companies producing energy systems for buildings.

More Information

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