



**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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