

EMRP: THERMO

Metrology for Thermal Protection Materials

Project Lead : NPL

Project Partners : LNE, PTB, CMI, MKEH



Jiyu Wu, Technical Coordinator

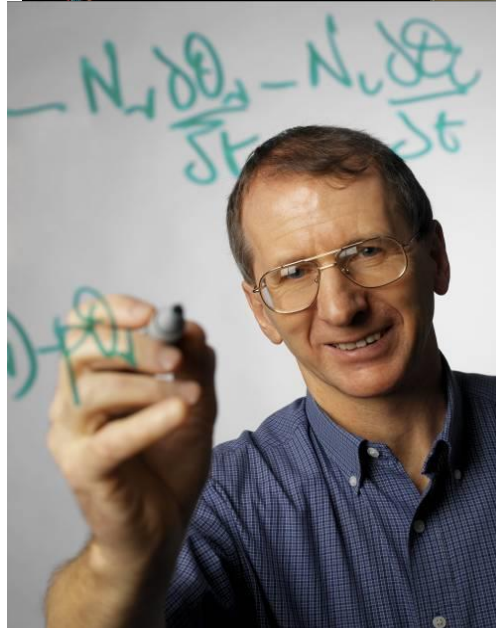
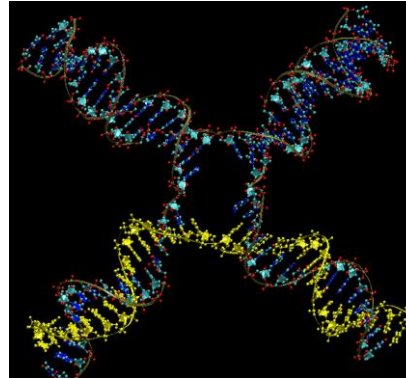
Graham Baker, Project Management Support

Materials Division, NPL



About NPL ...

- The UK's national standards laboratory
- Founded in **1900**
- UK **National Measurement Institute**
- 650+ specialists in **Measurement Science**
- State-of-the-art standards facilities



NPL has 6 Science Divisions:

Science Divisions

Materials

Engineering Measurement

**Time, Quantum and
Electromagnetic**

Acoustics and Ionising Radiation

Analytical Science

Environment

NPL Materials team

- 100+ Scientists, Engineers and Technicians
- Expertise and facilities in materials measurements
- Develop new measurement techniques
- Adapt existing techniques to new materials
- Close to industry
 - ◆ Over 120 companies on Industrial Advisory Groups



Materials Team: 5 Sub-groups

Materials Processing and Performance

Dynamic Thermal Evaluation

Composites

Thermal Properties of Materials and Structures

Polymeric Materials

Nanocomposites

Advanced Engineered Materials:

Residual Stress and Strain

SHM

Tribology

Microscopy

High Temperature Degradation

Nano Mechanics

Powder Route Materials (PRM)

Electrochemistry

Environment Induced Cracking (EIC)

Photovoltaics

Fuel cells

Nanoscale EC

Mathematics & Modelling

Materials Modelling

FE

Circuit cleanliness (SIR, SEC)

Component mounting

Thermodynamics (MTDATA)

FD & Genetic Modelling

Solder reliability

Functional Materials

Piezoelectric Materials

Ferroelectric, Electrocaloric and Multiferroic Materials

Dielectric Materials

Thermoelectric Materials

Magnetic Materials

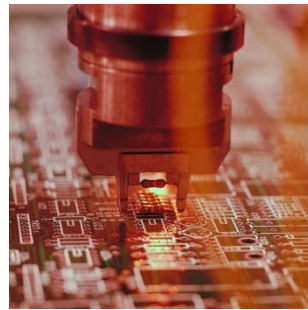
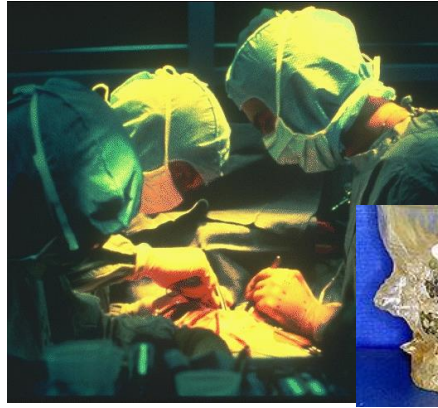
Materials are critical to the infrastructure, and prosperity of the UK

Aero



Recreation

Medical



Electronics

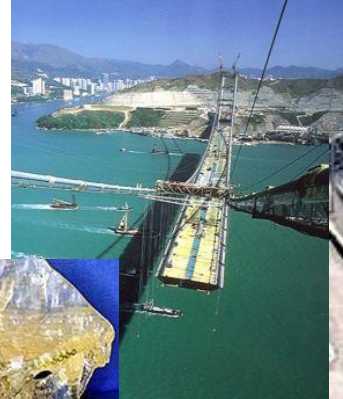


Automotive



Chemicals

Civil engineering



Rail networks



Power generation



Defence

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