Living with Thermal Management: Applications in Harsh Environments

Photonics & Electronics Seminar and Roadmapping Event

Thursday 29 January 2009

Begbroke Science Park, Sandy Lane, Yarnton, Oxford, OX5 1PF

Thermal Management of electronic and photonic devices has become one of the most critical factors in device design, performance and reliability.

Specific issues include:

Photonic devices:

- Higher power/density optical (eg LED's and laser diodes) systems.
- Increasing control electronic complexities.

Electronic devices:

- Increasing levels of integration and clock speeds.

Environment/Applications:

- Shrinking size, weight and costs.
- Increasing ambient temperatures (eg 150-400ºC).

If Thermal Management is inadequate it can lead to direct failure of the semiconductor or the progressive accumulation of thermomechanical damage and eventual cracking of the interconnect structures.

The Photonics and Materials KTN's, recognising the significance of the thermal management problems are organising a one-day workshop to formulate ideas, discuss possible solutions and generate a strategy to help UK based companies address this issue.

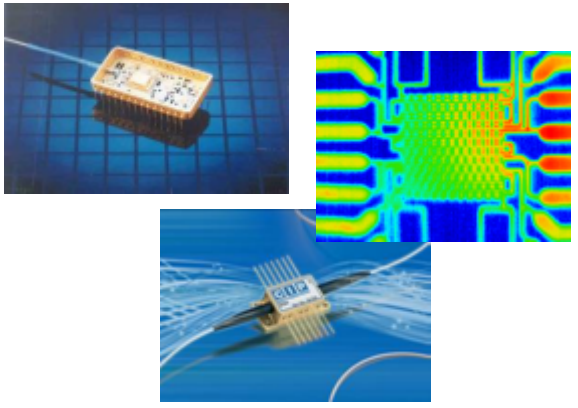
Objectives of the event:

- Look at technological developments in thermal management and understand where the UK's strengths and weaknesses are.
- Determine the market trends and drivers, and how the UK can position itself to be competitive.
- Feed back to the TSB on needs for funding.
- Establish where KTNs could provide support with further seminars, workshops or training activities

This workshop will be of interest to engineers and designers who are working in photonics and electronics design and implementation. The roadmapping discussion groups will form the basis of PKTN Thermal Management roadmap, which will be circulated to attendees following completion.

Event Agenda

09.30	Registration and coffee
09.45	Introduction to the day
10.00	Roadmapping
10.20	Advanced thermal management solutions
10.40	Telecommunications
11.00	*Coffee*
11.20	Aerospace and defence
11.40	Power Lasers
12.00	*Lunch*
12.50	Traction
13.10	Extreme environments
13.30	Discussion Group: The future of thermal management
14.15	*Tea*
14.30	Discussion Group: The path to the future
15.30	Report back
15.45	Summary and closing remarks
16.00	Close



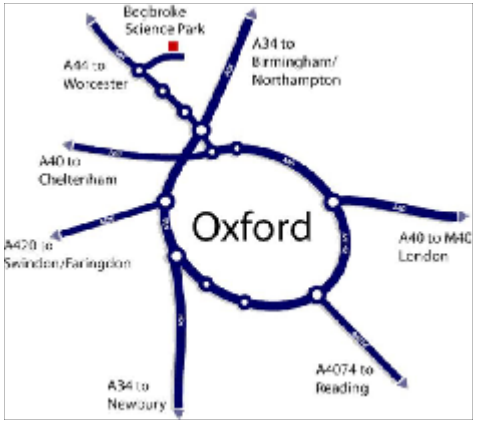
Location

Living with Thermal Management: Applications in Harsh Environments

Thursday 29 January 2009

The Blenheim Conference Room
Oxford University
Begbroke Science Park
Sandy Lane, Yarnton
Oxford OX5 1PF

Parking is available on site.
Nearest Rail station: Oxford



This event is organised by The Faraday Advance and the Materials and Photonics KTN's.

Registration

Cost: £25 (inc VAT), including lunch and refreshments

Name:……

Email:……

Position:……

Organisation:……

Address:……

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There is an opportunity for posters and table-top exhibitions in the entrance area. There is **no charge** for these, but space is limited, so if you are interested please email Jan Pearson (faraday@materials.ox.ac.uk) ASAP.

Please post or fax your registration to:

Jan Pearson
Faraday Advance
Begbroke Science Park
Sandy Lane, Yarnton
Oxford OX5 1PF

Email: faraday@materials.ox.ac.uk
Tel: 01865 283703
Fax: 01865 848785

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Method of payment

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Data Protection Act
Faraday Advance will hold and use the data supplied on the registration form for administrative purposes and to keep you informed of future events or relevant information. If you would prefer not to receive further mailings from Faraday Advance, please tick the following box: ☐