

PROGRAMME

High Power Diode Lasers & Systems

A ONE AND A HALF DAY PROGRAMME

Date: **Wednesday 14th & Thursday 15th October 2015**

Venue: **Ricoh Arena, Coventry, CV6 6GE, UK**



THE CONFERENCE & EXHIBITION ARE FREE TO ATTEND

SPONSORS



Wednesday 14th October 2015

Exhibition registration from 08:30 and is open: 10:00 to 17:00

12:15 - registration & coffee -

12:55 **Introduction to meeting**

SESSION 1: Novel high brightness laser diodes

13:00 **KEYNOTE ADDRESS**

Progress in nonpolar and semipolar laser diodes

Dan Cohen, *University of California, Santa Barbara, USA*

13:40 **High power picosecond and nanosecond diode laser sources in the wavelength range 650nm to 1100nm.**

Andreas Klehr, *Ferdinand-Braun-Institute, Germany*

14:00 **High-power THz quantum cascade lasers.**

Karl Unterrainer, *Vienna University of Technology Photonics Institute, Austria*

14:20-15:00 - refreshment break in the exhibition hall -

SESSION 2: Laser diodes with high power conversion efficiency & poster session

15:00 **Performance and reliability of high power, high brightness 8xx-9xxnm semiconductor laser diodes.**

Yuji Yamagata, *OPTOENERGY Inc, Japan*

15:20 **Theory and modelling of the power conversion efficiency (or electrical performance) of LOC laser diodes.**

Eugene Avrutin, *University of York, UK*

15:40 Poster Introductions (2 minutes per poster)

POSTER SESSION

16:00 Poster Session in the Exhibition Hall

17:05 Networking and drinks.

SUPPORTED BY:



Thursday 15th October 2015

Exhibition registration from 08:30 and is open: 10:00 to 16:00

09:15 - coffee on arrival -

SESSION 3: Power scaling for kW-class diode laser systems

09:35 **Welcome back**

09:40 **Recent progress on high-brightness kW-class direct diode lasers.**

Bryce Samson, *Teradiode Inc., USA*

10:00 **Spectrally stabilized and combined diode lasers.**

Hagen Zimer, *Trumpf Laser GmbH, Germany*

10:20 **kW Class diode laser technology and beam quality converters.**

Andre Eltze, *Laserline, Germany*

10:40-11:20 - refreshment break in the exhibition hall -

11:20 **High power, high brightness diode lasers for kW laser systems.**

Victor Rossin, *Lumentum, USA*

11:40 **Extra bright high power laser bars.**

Christian Lauer, *OSRAM Opto Semiconductors, Germany*

12:00 -13:30 - Break & exhibition -

SESSION 4: High-power laser diode applications and degradation performance

13:30 **KEYNOTE ADDRESS**

Selective laser melting for additive manufacturing: perspectives for diode Lasers.

Christian Hinke, *Rapid Manufacturing Group, Fraunhofer Institute for Laser Technology, Germany*

14:10 **Fiber coupled laser diode reliability: Impact of feedback on diode lifetime and failure modes.**

Heiko Kissel, *DILAS Diodenlaser, Germany*

14:30 **Failure mechanisms in high power diode lasers: Wide -vs- narrow band gap materials.**

Martin Hempel, *Max-Born-Institute, Germany*

14:50 **Concluding comments**

14:55 - end of meeting, visit to the exhibition - (closes at 16:00pm)

15:20 **Coach leaves to visit MTC (see over).**

MEETING ADMINISTRATION

Brenda Hargreaves, Enlighten Meetings/Xmark Media Ltd

T: +44 (0)1372 750555 Email: info@enlightenmeetings.com

More details at:

www.hpdl.org

High Power Diode Lasers & Systems

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ABOUT

Advances in diode lasers and diode pumped lasers continue unabated as the range of applications increases. These advances are reflected in the current drive to develop kW-class direct diode laser systems. At the same time, advances in diode pump lasers continue to contribute to advances in solid state and fibre lasers.

The Conference includes an international programme of invited speakers, who are well positioned to discuss recent advances and current challenges in the field. The Committee has created a balanced programme covering advances in scientific research, technological development and application challenges for high-power diode lasers.

The objective is to establish a forward-looking programme to inspire participants and encourage cross-sectorial scientific/technological exchanges.

This meeting, the 8th in the series, enjoys a reputation for showcasing the most significant recent advances in both the technology and the applications of high power diode laser systems - and for stimulating cross-sectorial and cross-disciplinary technical exchanges.

The importance of this event is also reflected in the continued growth in attendance and in the participation of international leaders in the field (both from industry and from research institutes/academia).

The meeting comprises a programme of invited speakers, a poster session of contributed papers and time will be allowed for networking with other delegates. An evening dinner opportunity will be offered to all delegates on the Wednesday.

TOUR ON THURSDAY

At the end of the technical programme on Thursday afternoon there will be the offer of a tour of the workshops at the Manufacturing Technology Centre. Challenging the boundaries of manufacturing: The Manufacturing Technology Centre (MTC) develops and proves innovative manufacturing processes, including laser based Additive Manufacturing, and operates some of the most advanced manufacturing equipment in the world - <http://www.the-mtc.org/>.



Details of how to book your place to follow.

15:20 **Coach leaves Ricoh to visit The Manufacturing Technology Centre**

15:35 **Arrive at MTC, tour of workshops**

16:50 **End of visit**

17:20 **Coach to Ricoh Arena via Coventry Station.**

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PROGRAMME ORGANISATION

Prof Eric Larkins (Co-chair)

Professor of Optoelectronics,
University of Nottingham,
T: +44 (0)115 951 5534

Email: eric.larkins@nottingham.ac.uk

TECHNICAL PROGRAMME COMMITTEE

Prof John Marsh (Co-chair)

University of Glasgow, UK

Dr. Berthold Schmidt (Co-chair)

TRUMPF Laser Marking Systems AG,
Switzerland

Martin Traub

Fraunhofer Institute for Laser
Technology, Germany

Dr Thomas Brand

DILAS Diodenlaser GmbH, Germany

Dr Paul Crump

Ferdinand-Braun-Institut, Germany

Dr Robin Huang

TeraDiode Inc., USA

Dr Marc Sorel

University of Glasgow, UK

Erik Zucker

Lumentum, USA

A MEETING FROM

Scottish Chapter of the IEEE Photonics
Society

More details at:

www.hpdl.org

Quality Meetings. Quality Event.

FREE-OF-CHARGE FOR ALL ATTENDEES
ADVANCE REGISTRATION REQUESTED



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