



Final announcement of

European Semiconductor Laser Workshop 2002
Copenhagen, Sep. 6-7, 2002

Dear colleague

It is again time to meet for informal and stimulating discussions on semiconductor lasers.

We have the pleasure to invite you to the European Semiconductor Laser Workshop 2002

Following the tradition of having the workshop in connection with ECOC, it will this year be in **Copenhagen, Denmark on September 6 and 7**. ECOC is held September 8-12. The workshop is hosted by COM – Education & Research Center, Technical University of Denmark. The venue for the workshop is the neo-renaissance palace

The Royal Danish Academy of Sciences
H.C. Andersens Boulevard 35
DK-1553 Copenhagen V
Denmark

which has been the seat of the Danish Academy of Sciences since 1899. It is located in the centre of Copenhagen close to Tivoli, the Central Station and the main pedestrian streets of Copenhagen.

We expect you to meet fellow laser experts from universities, companies and research centres all over Europe, and to have the opportunity to discuss new materials, new structures, new applications, new insights into basic laser physics – you name it.

The workshop dinner will be at **Kronborg Castle in Elsinore**– the castle of Hamlet according to Shakespeare.

Workshop details and application form can be found on the following pages.

Please forward this invitation to colleagues at your institute/ company.

See you in Wonderful Copenhagen

The organising committee at COM:
Bjarne Tromborg
Jesper Mørk
Jørn M. Hvam
Lone Bjørnstjerne (secretary)

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Registration

Please fill out the attached application form (pages 4 and 5) and fax or e-mail it to

Bjarne Tromborg
Research Center COM
Bldg. 345V
Technical University of Denmark
DK-2800 Lyngby, Denmark
Tel.: +45 45 25 38 02 Fax: +45 45 93 65 81
E-mail: bt@com.dtu.dk

Workshop fee: Unfortunately, we have not been able to find local sponsors that could cover all the expenses. We therefore have to request a workshop fee of **75 euro**. The fee covers the expenses for lunches, coffee breaks, the workshop dinner, and the bus to the workshop dinner.

The **deadline** for using our hotel booking is **AUGUST 5**. We have extended the **deadline** for registration to the workshop till **AUGUST 16**.

General Workshop Information

The content of the workshop is given by your contributions. In the application form we ask you to supply a short abstract of your presentation, which will then appear in a short Advance Program. We hope to be able to make room for all contributions. In order to ensure that our meeting has the character of a workshop we remind you that your presentation should be short, of the order of 5 minutes, to leave about 10 minutes for discussions. The program will be sent to all participants around August 20.

In line with previous years we suggest the following topics:

- **Novel laser structures, materials and technologies** (nanostructure technology, quantum wells and dots, photonic crystals, microcavity devices, quantum cascade lasers, N-based laser materials, etc.)
- **Laser physics** (theory and experiments on noise, static and dynamic properties, quantum effects, optical gain, strained materials, carrier dynamics, feedback phenomena, nonlinear effects, etc.)
- **High power lasers** (pump lasers, laser arrays, MOPA, etc.)
- **VCSELs** (long and short wavelength devices, laser arrays, etc.)
- **Long and short wavelength lasers** (quantum cascade lasers, violet, blue, green lasers, etc.)
- **Lasers and amplifiers for short pulse generation and all optical signal processing** (short pulse generation, optical signal (2R,3R) regeneration, time domain demultiplexing, wavelength conversion, etc.)
- **Laser fabrication for commercial applications** (yield, reproducibility, reliability, temperature sensitivity, feedback sensitivity, cost)
- **Lasers for WDM applications** (λ -tunable lasers, arrays, fiber grating lasers, etc.)
- **Laser integrated devices** (hybrid and/versus monolithic approaches, cross-talk, etc.)

There has been a boom of new innovative ideas over the last couple of years. We look forward to see this confirmed at the workshop.



Accommodation

We encourage workshop participants to book hotel rooms as fast as possible. For those of you who plan to attend ECOC there is the possibility to book the hotel together with the ECOC registration on <http://www.ecoc.dk>. You may also find a hotel yourself on www.woco.dk.

We have made a block booking of 25 rooms for workshop participants for Sep. 5 and Sep. 6 at

The Mayfair Hotel
Helgolandsgade 3
DK-1653 Copenhagen V
Tel: 33 31 48 01, Fax: 33 23 96 86, e-mail: info@themayfairhotel.dk

The hotel is about 10 minutes walk from the site of the workshop. (see www.themayfairhotel.dk). You should book the room yourself with reference to “**Laser Workshop 2002**” either by phone, fax or e-mail. The block booking includes

15 rooms, standard (DKK 805, including breakfast)
10 rooms, superior (DKK 1005, including breakfast)

The reservations are only guaranteed until **August 5**. Notice, that the hotel requests credit card information at arrival later than 4 pm.

Program

The tentative plan is to have the technical part of the program on Friday, Sep. 6, 9:00 – 17:00, and Saturday, Sep. 7, 9:00 – 14:00.

On Friday, Sep. 6 at 17:00 a buss will bring us to Kronborg, Elsinore about 30 km north of Copenhagen for sightseeing and the workshop dinner. The bus will bring you back to Copenhagen around 22:00.

How to get there

The Royal Academy of Sciences is located within walking distance from Tivoli, the town hall square, and the central railway station. See www.royalacademy.dk.



Workshop Application Form

Please fill out and return to:

Bjarne Tromborg
Research Center COM
Bldg. 345V
Technical University of Denmark
DK-2800 Lyngby, Denmark
Tel.: +45 45 25 38 02 Fax: +45 45 93 65 81
E-mail: bt@com.dtu.dk

Name:

Company or Organisation:

Address:

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Telephone:

Fax:

E-mail:

Authors and title of contribution :

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**Short (!) abstract (not more than 100 words and no figures !),
to be included in a short Advance Program.**

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I would like to participate but without a contribution :

My organisation will not participate in the laser workshop this year:.....

I suggest the following persons/organisations to be invited to the workshop :

The workshop fee of 75 euro covers the expenses for lunches and coffee on Sep. 6-7, the workshop dinner and transport to Kronborg.

Method of payment:

- Bank transfer to Den Danske Bank, Nytorv-Branch, DK-1012 København K.
Swift Code: **DABADKKK**, Reg. No.: **4180**, Acc. No.: **4263972007** with following reference: (COM-70190-your name)
- American Express, 15 digits
- Eurocard/MasterCard/VISA/JCB, 16 digits
- Diners, 14 digits

Card #: _____ , Expiry date: __/ __
Security code: ___

Date: __/ __/ __ , Authorised signature:

Cardholders name and address if different from above:

Name:
Address:
.....
.....



*European Semiconductor Laser Workshop 2002
Programme*

Friday, September 6

9:00 – 9:20 Welcome and announcements.

9:20 – 11:00. Session 1

Modelocking

Chair: Jesper Mørk

H. Lamela, R. Santos, G. Carpintero, J.P. Vilcot,
“Recent experimental results in lateral mode locking semiconductor lasers”.

S. Fidorra, H. Heidrich, E. Hilliger, B. Hüttl, R. Kaiser, M. Kroh, L. Küller, R. Ludwig, V. Marembert,
W. Rehbein, S. Ritter,
“Characterisation of ion-implanted 1.55 μm Fabry-Perot lasers for application as mode-locked pulse sources”.

K. Yvind, T. Jørgensen, D. Birkedal, J. Mørk, J. Hanberg,
“External cavity mode-locked lasers employing reverse biased saturable absorbers”.

J. Lasri, A. Bilenca, D. Dahan, V. Sidorov, G. Eisenstein, D. Ritter, K. Yvind,
“Self starting ultra low jitter optical pulse source”.

K.A. Williams and I.H. White,
“Mode-locked laser design for optical time division multiplexing applications”.

11:00 – 11:30. Coffee Break

11:30 – 12:50. Session 2

VCSELs

Chair: Jens Buus

A. Larsson, C. Carlsson, and J. Halonen,
“Vertical cavity surface emitting lasers for microwave applications”.

C. Lauer,
“Investigation of tunnel junction resistance in BTJ-VCSELs”.

N. Xiang, P. Leinonen, J. Lyytikäinen, L. Rajala, A. Vainionpää, S. Suomalainen, M. Pessa,
“1.02 μm vertical-cavity surface-emitting laser for POF applications”.

D. Birkedal,
“Mode control of VCSELs”

12:50 – 13:50. Lunch

13:50 – 15:30. Session 3

External cavity lasers; Noise.

Chair: Daan Lenstra

P.M. Petersen,
“Nonlinear Guided Modes in a High-Power Semiconductor Laser”.

N. Dubreuil, A. Godard, S. Maerten, V. Reboud, G. Paullat and G. Roosen, “Extended-cavity semiconductor lasers with an intra-cavity photorefractive filter”.

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M. Yousefi, D. Lenstra, G. Vemuri,
“Shot noise has important influence on the dynamics of semiconductor lasers”.

G. Morthier,
“Noise characteristics of laser diodes integrated with semiconductor optical amplifiers”.

F. Öhman, S. Bischoff, B. Tromborg, and J. Mørk,
”Noise and regenerative properties of SOA-EA regenerators”.

15:30 – 16:00. Coffee Break

16:00 – 17:00. Session 4

Laser dynamics

Chair: Gadi Eisenstein

J.M. Rorison, J.C. Yong and M. Othman,
“GaInNAs gain and carrier modulation speed”.

D. Lenstra, M. Yousefi, A Barsella, G. Morthier, R. Baets,
“Multi-longitudinal-mode dynamics in twin-stripe lasers”.

B. Stegmüller and C. Hanke,
“Comparison of 1.55 μm and 1.3 μm electroabsorption modulators integrated with DFB lasers based on identical MQW-double stack active layer”.

17:00 Transport to Elsinore

18:00 Guided tour at Kronborg

19:00 Dinner at Kronborg

22:00 Transport back to Copenhagen

Saturday, September 7

9:00 – 10:20 Session 5

Quantum dots and dashes

Chair: Ivo Montrosset

D.R. Matthews, H.D. Summers, and P.M. Smowton,
“The effect of wetting layer states on the gain-current characteristics of quantum dot lasers”.

Ch. Ribbat, I. Kaiander, R. Sellin and D. Bimberg,
“Superior beam quality and filamentation suppression of narrow stripe quantum-dot lasers”.

R. Alizon, A. Bilenca, V. Mikhelashvili, G. Eisenstein, R. Schwertberger, D. Gold, J.P. Reithmaier, A. Forchel,
“InAs / InP Quantum-dash SOA’s operating at 1550 nm”.

T.W. Berg and J. Mørk,
“Physics of semiconductor quantum dot amplifiers under strong inversion”.

10:20 – 10:50. Coffee Break

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10:50 – 12:30. Session 6

Tunable lasers, pump lasers

Chair: Geert Morthier

O. Lavrova, N. O’Gorman, R. O’Dowd, U. O’Raghallaigh,
“Close-Grid™ to calibrate widely tuneable lasers”.

V. Feies and I. Montrosset,
“Tunable two section DBR laser design for operation at ITU frequencies without temperature tuning”.

J. Buus and M. Parker,
“Unified approach to gratings and general reflectors”.

G. Busico, N.D. Whitbread, P.J. Williams, D.J. Robbins, A.J. Ward, D.C.J. Reid,
“Phase grating reflectors in DS-DBR broadband tunable lasers”.

C. Larat, M. Krakowski, M. Calligaro, S.C. Auzanneau, O. Parillaud, B. Boulant, A. Laugustin, T. Fillardet, Ph. Bousselet, F. Leplingard, and D. Bayart,
“5W 100 μm fibre-coupled 977 nm pump source. +29.2 dBm EDFA output demonstration”.

12:30 – 13:30. Lunch

End of workshop