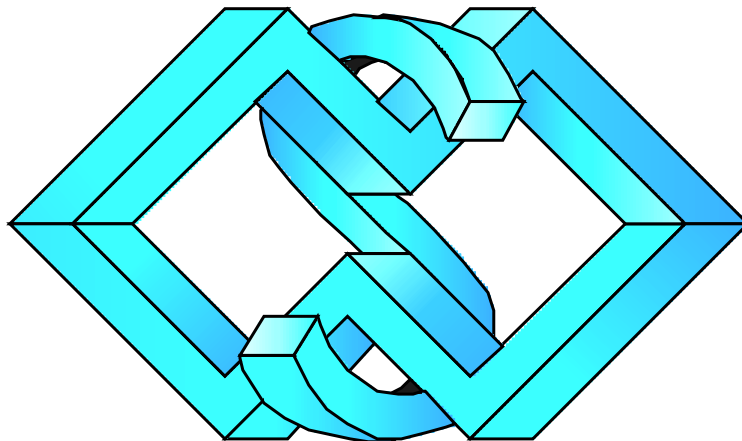


note
Feb. 28 deadline
registration fee

FINAL PROGRAM

MICRO STRUCTURE WORKSHOP

**YESTERDAY'S IMAGINATION
TODAY'S INNOVATIONS
TOMORROW'S INDUSTRIAL SUCCESS**



Aronsborg, Bålsta, Sweden
March 20-21, 2002

MSW '02 is a forum for those interested in micro-opportunities, micro-devices, micromechanics, MEMS and MST. It is a complement to scientific conferences, which primarily are forums for the latest scientific results. The purposes of *MSW* are ...

- ... to bring together in an informal way those interested in MEMS/MST
- ... to stimulate the (industrial) use of MEMS/MST and micromechanics
- ... to increase the awareness of resources, competence and challenges

MSW '02 is a platform for information exchange, and its informal atmosphere will create many opportunities to form new and to strengthen old contacts. *MSW* is held with the participants in focus.

MSW '02 is intended not only for those working actively in the area, but equally well for those in both industry and academy that have a general interest in MEMS/MST. More than one third of the participants at previous *MSW*s came from industry.

You are welcome to attend the 4th *MSW*. The target is to meet the high expectations generated by the previous workshops.

Welcome !

PROGRAM MSW '02

MARCH 20 (WEDNESDAY)

8.30-9.15 Registration

9.15 Welcome and opening of the workshop
Jan Söderkvist², Pelle Rangsten², Patrik Hollman³ (¹Colibri Pro Dev. AB, ²Silex Microsystems AB, ³Ämic AB)

9.30 INVITED: Microsystems in automotive applications
Helmut Seidel (Conti Temic microelectronic GmbH, Germany)

10.10 Silicon sensors for high pressure and high temperature applications
Martin Nese (PreSens A/S)

10.30 ☕ Coffee

11.00 INVITED: MIC start-ups – current and future business models of commercialization of research
Anders Larsen (Yole Development & MIC)

11.40 Microsystems in wireless communication
Anders Olsson (Acreo AB)

11.55 3-D micromachined devices based on the polymer V-groove (PVG) technology
Thorbjörn Ebefors^{1,2}, Edvard Kälvesten², Göran Stemme¹ (¹KTH, ²Silex)

12.10 Poster presentations

12.40 ✕ Lunch

13.50 Microsystem activities in Oslo
Liv Furuberg (SINTEF-Oslo)

14.10 Acreo – a presentation
Anders Olsson (Acreo AB)

14.25 Imego a research institute –
in step with the times
Gert Andersson (Imego AB)

14.40 Summit – The VINNOVA Competence Center
of Surface and Microstructure Technology
Klas Hjort (UU)

14.55 Design and development support –
a look behind the scene
Jari Hyvärinen¹, Jan Söderkvist² (¹Anker-Zemer
Engineering AB, ²Colibri Pro Development AB)

15.15 ☕ Coffee and Poster Session

15.45 INVITED: Electronics manufacturing
learning factory
Ari Lehto (Espoo-Vantaa Inst. of Tech.)

16.15 Microglow: A microsystems laboratory course
Sami Franssila, Ilkka Tittonen,
Kestutis Grigoras, Tuuli Juvonen,
Kaisa Nera, Paula Heikkilä (HUT)

16.30 Increasing interest for MEMS in
telecommunication
Katarina Boustedt¹, Kåre Gustafsson²
(¹Ericsson Mobile Communications AB,
²Ericsson Radio Systems AB)

16.50 Summary of who are active in the
Nordic region + MSx update
Jan Söderkvist (Colibri Pro Development AB)

17.05 Discussion on
Nordic MEMS strategies and support

18.30 ✕ Dinner

POSTERS & EXHIBITORS

- High power Q-switched Nd:YAG laser mounted in a microstructure silicon carrier
Jacob Rydholm, David Evekull, Maria Kindlundh, Stefan Bjurshagen, Leif Kjellberg, Lennart Bäcklin, Ralf Koch, Magnus Olson (Acreo AB)
- Homogeneous porous layers in high aspect ratio enzyme microreactors improves performance
Martin Bengtsson¹, Simon Ekström¹, György Marko-Varga², Thomas Laurell¹ (¹LTH, ²LU)
- Injection molded subwavelength gratings as low-cost antireflection surfaces
Fredrik Nikolajeff (UU)
- Integration of micro-optics with semiconductor lasers
Mikael Karlsson, Fredrik Nikolajeff (UU)
- Notch mechanics for silicon microstructures
Zhiliang Zhang (SINTEF-Trondheim)
- Ultraminiaturized leverage beam pressure sensors
Patrik Melvås, Edvard Kälvesten, Göran Stemme (KTH)
- Spiked biopotential electrodes
Patrick Griss¹, Pekka Meriläinen² (¹KTH, ²Datex-Ohmeda)
- Acreo AB
- Anker-Zemer Engineering AB
- Colibri Pro Development AB
- Comsol AB
- Ericsson Microelectronics AB
- EV Group
- Megatel AB
- Silex Microsystems AB
- Ämic AB

PROGRAM MSW '02

MARCH 21 (THURSDAY)

- 8.50 Cleanroom and vibration control for MEMS manufacturing
Romain Haettel (ABB Airtech)
- 9.10 Quartz direct bonding for increased resonator stability
Örjan Vallin (UU)
- 9.25 Double sided bulk micromachining of SOI films using room temperature oxygen plasma assisted bonding
Anke Sanz-Velasco¹, Henrik Rödjegård², Gert I. Andersson² (¹CTH, ²Imego AB)
- 9.40 Electrospray ionization mass spectrometry using a plastic chip
Malin Svedberg, Fredrik Nikolajeff (UU)
- 9.55 Micromechanics in <111> silicon
Tuuli Juvonen, Jenny Poulsen, Sami Franssila (HUT)
- 10.10 ☕ *Coffee and Poster Session*
- 10.40 INVITED: Microsystem in biotechnology – a commercial perspective
Björn Ekström (Pyrosequencing AB)
- 11.10 Microfluidic devices for biotechnology
Aman Russom, Wouter van der Wijngaart, Helene Andersson, Göran Stemme (KTH)
- 11.25 Development of multisite microelectrodes for neuroscience
Maria Kindlundh (Acreo AB)
- 11.40 ✂ *Lunch*
- 12.55 Simulation of simultaneous flow, diffusion and reaction
Gunnar Kylberg (Gyros Microlab AB)
- 13.15 Piezo-driven inkjet
Mats Ottoson (XaarJet AB)
- 13.35 Microdispensing using the compound method
Johan Nilsson, Jonas Bergkvist, Simon Ekström, Thomas Laurell (LTH)
- 13.50 Microcombustion / PowerMEMS
Nina Bjerkebo et al (Telemark University College)
- 14.10 ☕ *Coffee and Poster Session*
- 14.40 MOEMS for biomedical applications
Fredrik Nikolajeff (UU)
- 15.00 Functional testing and calibration of microsystems at wafer level
Mette Brunbjerg Olesen, Jesper Bay, Jens Branebjerg, DELTA Danish Electronics, Light & Acoustics
- 15.20 The design of a bistable micro-switch
Britta Ottoson (Imego AB)
- 15.35 Diamond – optic's best friend
Mikael Karlsson, Fredrik Nikolajeff (UU)
- 15.50 – ~16.00 Open discussion on prototyping, industrialization, and the steps thereafter

Late News Posters

The conference site still permits the acceptance of one or two additional Late News posters.

Please contact the MSW-organizer for more information.

- ✂ -----
- I register to MSW '02 (March 20-21) I register to only one of the days, namely March
- I wish to participate in the dinner (included in the registration fee) I am a student
- I wish to book a hotel room at the conference site (20-21 mars)

Name: _____

Company / Institute: _____

Address: _____

Phone: _____ Fax: _____ E-mail: _____

Background: *MSW* is one of several activities aimed at stimulating the development and use of MEMS/MST. These '*MSx*'-activities, which are run on a non-profit basis, include activities such as *MSW*, *MSB* and *MSK*. *MSW* is the first of these activities to restart after a longer time-out. The intention is to let *MSW* appear every other year, to rotate it between main MEMS-locations, and to have an industrial-oriented advisory board. The initial coordinator of *MSx* is Jan Söderkvist at Colibri Pro Development AB in collaboration with VINNOVA.

Local organizers for *MSW* '02 are Åmic AB and Silex Microsystems AB in collaboration with Colibri Pro Development AB.

Conference site: Aronsborg conference center (www.aronsborg.se) is located on the shores of Lake Mälaren, 35 km from Arlanda Airport, 45 km from the center of Stockholm, and 2 km from Bålsta Center. There is a bus service between Arlanda Airport and Bålsta Center. Bålsta Center can also be reached by the Stockholm commuter trains (pendeltåg) and by several bus lines. A map is available via *MSW*'s website.

Registration to *MSW* '02 can be made on the enclosed coupon, via e-mail (patrik.hollman@amic.se), or fax (+46-(0)18-14 32 50). An invoice will be sent out together with the confirmation. Half the registration fee will be refunded for cancellations made after Feb. 28, but no refund will be made for cancellations made after March 5.

Registration fee: 2900 SEK (3600 SEK after Feb. 28) including lunches, coffee, dinner and conference material. A 25% VAT (moms) will be added for Swedish participants, as well as for EU-participants whose affiliation is not VAT-registered. There will be a 35% discount to students, and a quantity discount when three or more participants from the same address register at the same time.

Lodging: Accommodation can be offered for the conference night (March 20-21) at the conference hotel for an additional 600 SEK for a single room.

Language: All speakers have been encouraged to keep their presentation and all written material in English.

More info is available at *MSW* '02's website <http://www.colibri.se/MSW02>

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MSW '02



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