

PROGRAM MSW '98

MARCH 24 (TUESDAY)

8.15-9.00 *Registration*

9.00 Introduction

9.10 Wind, sound, smell, and intrusion detected by micromachined thermal CMOS sensors (Invited)
Henry Baltes, Oliver Brand and Andreas Koll (ETH Zürich, Switzerland)

9.55 Medical applications of microsystems

J. Malcolm Wilkinson and David Hitchings (Technology For Industry Ltd, Great Britain)

10.15 NORMIC – Nordic Microsystems Manufacturing

Stein Ivar Hansen¹, Edvard Kälvesten², Joan Bausells³, Ralph W. Bernstein⁴, Jaako Salonen⁵ and Ole Steensen⁶ (¹SensoNor, ²IMC, ³CNM, ⁴Sintef, ⁵VTT, ⁶MIC)

10.35 ☕

11.05 Microprocessing – an armchair approach (in Swedish)

Greger Thornell and Stefan Johansson (Uppsala Univ.)

11.30 Bonded wafers for use in MEMS manufacturing

Karin Hermansson and Scott Blackstone (BCO Technologies, Great Britain)

11.50 Research of permanent magnet microfabrication technology

and electromagnetic microdevices at Tallinn Technical University
Arvi Kruusing and Vitali Podgurski (Tallinn Technical Univ., Estland)

12.10 Three dimensional microstructures based on polyimide joints

Thorbjörn Ebefors, Edvard Kälvesten, Johan Mattsson and Göran Stemme (KTH)

12.30 ✕

13.30 Novel SPM probes – fabrication and characterization (Invited)

Anja Boisen (MIC, Denmark)

14.20 Creation and development of latent microstructures (in Swedish)

Greger Thornell and Klas Hjort (Uppsala Univ.)

14.40 Further development of an electron tunneling accelerometer

Patrick Scheeper (Brüel & Kjær, Denmark)

15.00 ☕

15.30 Micro propulsion thrusters for space applications

Mats Jönsson¹, Johan Köhler¹, Kajsa Larsson¹, Urban Simu¹ and Lars Stenmark²
(¹Uppsala Univ., ²ACR Electronic)

15.50 A shear mode piezo printhead – manufactured in Sweden

Gerhard Beurer¹ and Joachim Kretschmer² (¹Modular Ink Technology, ²Pelikan Produktions AG)

16.10 Micro fluidic components in diamond

Henrik Björkman, Pelle Rangsten, Urban Simu, Joakim Karlsson, Patrik Hollman and Klas Hjort (Uppsala Univ.)

16.30 MST at Industrial Microelectronics Center (in Swedish)

Christian Vieider (IMC)

17.00 Poster presentations

3 minute presentations of posters that have an underlined author in the poster list

17.15 Poster session with refreshments

18.30 ✕ *Dinner*

PROGRAM MSW '98

MARCH 25 (WEDNESDAY)

- 8.45 Simulations – a tool that opens design possibilities
Jan Söderkvist (Colibri Pro Development)
- 9.00 Laser to fiber alignment using microstructured silicon carriers
Bernt Sundström¹, Henrik Åhlfeldt², Johan Holm², Stefan Lindgren², Christian Vieider²
(¹Ericsson Components, ²IMC)
- 9.20 A large micromachined resonant scanning mirror (in Swedish)
Mattias Vangbo, Staffan Karlsson and Ylva Bäcklund (Uppsala Univ.)
- 9.40 An optical IR-source and CO₂-chamber system for CO₂ measurements
Edvard Kälvesten¹, Thierry Corman¹, Matti Huiku², Pekka Meriläinen² and Göran Stemme¹
(¹KTH, ²Datex-Engström, Finland)
- 10.00 InP based micro opto electro mechanics
Donato Pasquariello, Mikael Karlsson, Staffan Greek and Klas Hjort (Uppsala Univ.)
- 10.20 ☕
- 10.50 From research lab to MEMS fab: case Vaisala – VTI Hamlin (invited)
Heikki Kuisma (VTI Hamlin Oy, Finland)
- 11.40 Surface micromachined pressure sensors for cardiovascular pressure measurements
Edvard Kälvesten¹, Leif Smith², Lars Tenez² and Göran Stemme¹ (¹KTH, ²Radi Medical Systems)
- 12.00 Is the MEMS-commercialization micromachining or system-driven
Jan Söderkvist (Colibri Pro Development)
- 12.15 *Open discussion about industrialization issues*
- 12.25 X
- 13.25 Liliputian reflections (in Swedish)
Greger Thornell (Uppsala Univ.)
- 13.45 A low impedance sensing technique for vibrating structures
Anke Weinert, Mats Berggren and Gert I. Andersson (Chalmers)
- 14.05 Polymer microactuators for cell biology and nanoliter chemistry
Edwin W. Jager¹, Elisabeth Smela², Olle Inganäs¹ and Ingemar Lundström¹ (¹Linköpings Univ., ²Risø National Lab.)
- 14.25 Miniaturized X-ray sources
Leif Smith (Radi Medical Systems)
- 14.45 Update on Summit and AME
Jan-Åke Schweitz (Uppsala Univ.)
- 15.15 ☕
- 15.45 - ~16.30 Tour of the Ångström Laboratory, Ylva Bäcklund (Uppsala Univ.)

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.

Poster contributions (listed alphabetically):

- Encapsulation of silicon resonant structures (Thierry Corman, Peter Enoksson and Göran Stemme, KTH)
- Fabrication of a micro-electromagnet (Kajsa Larsson and Mats Boman, Uppsala Univ.)
- Flow-through piezo-electric picoliter dispenser (Johan Nilsson, Thomas Laurell, Lars Wallman, Staffan Nilsson and Jonas Johansson, LTH)
- IMC – Industriellt MikroelektronikCentrum (Christian Vieider *et al*, IMC)
- Micro Structure Technology at the Ångström Laboratory (Uppsala Univ.)
- Optically excited microresonator for force measurements (Niklas Johnsson, Hans Sohlström, Peter Enoksson and Göran Stemme, KTH)
- Packaging of micromachined components (Outi Rusanen, VTT Electronics, Finland)
- Polymer microactuators for cell biology and nanoliter chemistry (Edwin W. Jager¹, Elisabeth Smela², Olle Inganäs¹ and Ingemar Lundström¹, ¹Linköpings Univ., ²Risø National Lab.)
- Progress update on gyro industrialization (Jan Söderkvist, Colibri Pro Development)
- Sensors and microsystems at Chalmers (Henrik Malmquist, Anke Weinert, David Westberg and Gert Andersson, Chalmers)
- Some recent advances in micromachining technology (Greger Thornell and Stefan Johansson, Uppsala Univ.)
- Tallinn Technical University (Arvi Kruusing *et al*, Tallinn Technical Univ., Estland)
- The many faces of MITE (Greger Thornell *et al*, Uppsala Univ.)