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March 10 – 11, 2016
Arcotel Wimberger
Neubaugürtel 34 - 36, 1070 Vienna (AT)



Upper Austrian Research GmbH



Austrian Ministry
for Transport,
Innovation and Technology

PROGRAM

March 10, 2016

12:30 Opening, welcome & agenda

- M. Mühlberger, PROFACTOR
- G. Grützner, micro resist technology
- A. Pogany, bmvit

12:40 What's new?

- 12:40 Stamps for nanoimprint lithography: R&D at Fraunhofer IISB
- M. Rommel, Fraunhofer IISB
- 13:00 Fabrication of functional nano-structures using nanoimprint lithography for highly efficient optoelectronic devices
- H. Lee, Korea University
- 13:20 Nanoimprinted plasmonic color metasurfaces for flexible decoration of plastic consumer products
- A. Kirstensen, DTU Nanotech
- 13:40 Soft photomask lithography for manufacturing patterned sapphire substrate (PSS) in LED industry
- Y. C. Lee, Natl. Cheng-Kung, Taiwan University
- 14:00 20 Years of Nanoimprint
- S. Chou, Princeton University

14:20 Break

15:00 Imprint and Functional Materials

- 15:00 Functional imprint materials for industrial manufacturing of micro optics and complex 3D patterns
- M. Vogler, micro resist technology
- 15:15 Imprinted polymer waveguides and integrated optics for photonic interconnects and sensors
- M. Karppinen, VTT Technical Research Centre of Finland
- 15:30 Direct imprinting 2-D and 3-D nanoparticle/polymer hybrid and crystalline metal oxide structures for optical, electronic, and energy devices
- J. Watkins, University of Massachusetts
- 15:45 Materials - Advanced micro- and nanomanufacturing of large area organic electronics and functional surfaces
- B. Stadlober, Joanneum Research
- 16:00 Imprinting of high refractive index material for optical applications
- K. Munehika, aBeam Technologies
- 16:15 Production capabilities for seamless micro- and nanostructured sleeves used for Roll-to-Roll processes
- T. Ruhl, temicon

16:30 Break

17:15 Industrial Implementation/Foundries

- 17:15 Transition of NIL to high volume manufacturing
- H. Zaglmayr, EVG Group
- 17:30 SCIL nanoimprint solutions; high volume soft NIL
- M. Verschuren, Philips Group Innovation, Intellectual Property & Standards
- 17:45 To be announced
- T. Nielsen, NIL Technology ApS
- 18:00 Industrial use of nanolmprint in life science
- B. Heidari, Obducat
- 18:15 Nanoimprinting and nanojection molding – Accessing nanoscale on three-dimensional free-form products
- K. Chong, IMRE - A*STAR

18:30 Closing Day 1

- 18:45 Meeting Point Tram-Station Urban Loritz Platz (We walk together to the tram station)
- 19:30 Ride with The Vienna Giant Ferris Wheel
- 20:00 Dinner at restaurant „Stadtgasthof Eisvogel“, Riesenradplatz 1, 1020 Vienna

March 11, 2016

08:25 Opening, welcome & agenda

- M. Mühlberger, PROFACTOR
- A. Pichler, PROFACTOR

08:30 3D / Additive Manufacturing

- 08:30 Diamond like carbon (DLC) leaky waveguide sensors using a simplified SiPol transfer process
- H. Schift, Paul Scherrer Institute
- 08:45 µCP4.1 - platform for the automated contact printing and nano-imprint lithography process
- S. Howitz, GeSiM
- 09:00 Nanoimprinting and additive manufacturing - An interesting combination?
- M. Mühlberger, PROFACTOR
- 09:15 Flat, highly flexible composite stamps for nanoimprint
- M. Papenheim, University Wuppertal
- 09:30 Advanced optimization method for grayscale direct lithography
- D. Colle, Heidelberg Instruments
- 09:45 3D stamp fabrication with 1 nm vertical resolution using the NanoFrazor
- F. Holzner, SwissLitho
- 10:00 Novel fabrication process for free-formed mould inserts in steel nanostructured by Imprint lithography and nickel up-plating
- M. Guttmann, Karlsruhe Institute of Technology

10:15 Break

10:45 Discussion Sessions (parallel)

Nanostructures for life sciences	NIL on curved surfaces
10:45 Microfluidic cartridge for the new generation of rapid and cost-effective diagnostic biomarker analysis - I. Bergmair, Sony DADC Biosciences	10:45 Nanoimprinting on 3D printed surfaces - M. Haslinger, PROFACTOR
10:55 Roll-to-Roll pilot line for large-scale manufacturing of microfluidic devices - S. Köstler, Joanneum Research	10:55 2.5D imprinting with SCIL - R. van Brakel, Philips Group Innovation, Intellectual Property & Standard
11:05 Magnetic lab-on-a-bead - H. Brückl, Donau-Universität Krems	11:05 Nanoimprinting on curved substrate via an elastic bilayer mold - H. Yee Low, Singapore University
11:15 Plasmonically enhanced fluorescence biosensors - J. Dostalek, Austrian Institute of Technology	11:15 Modelling the flexible stamp deformations during NIL on curved surfaces - M. Sonne, Technical University of Denmark
11:25 Additional time for discussion	11:25 Durable nanostructured tools for plastic injection moulding - G. Kofod, Inmold
	11:35 Additional time for discussion

11:45 Buffet lunch

13:00 What's New? (Part II / Outlook)

- 13:00 Dark reactions in photopolymers
- L. Lindvold, Stensborg
- 13:15 NIL industrial platform assessment within INSPIRE
- S. Landis, CEA
- 13:30 Closing Day 2