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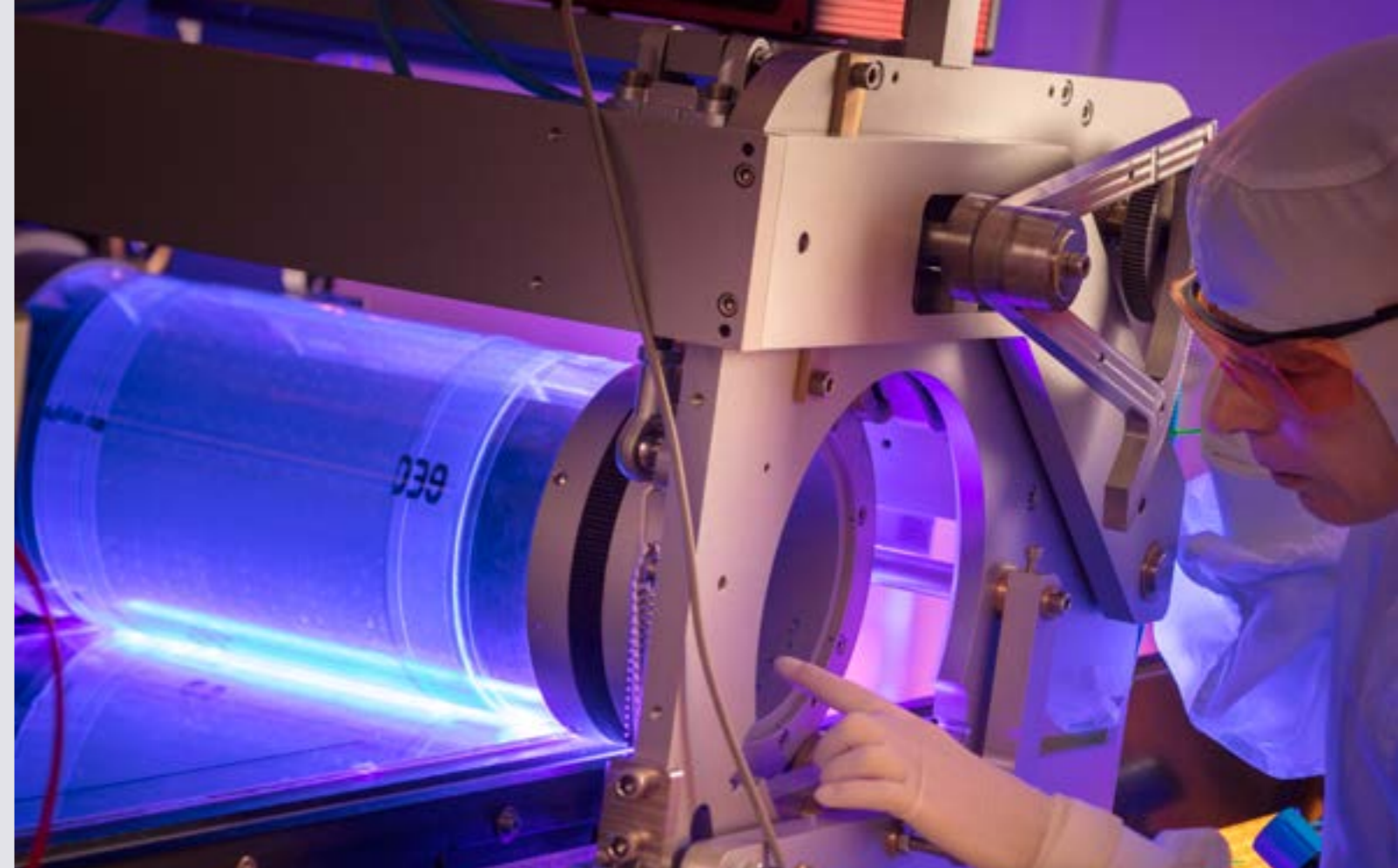
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## NIL Industrialday

March 08 – 09, 2018

Parkhotel Schönbrunn

Hietzinger Hauptstraße 10-16, 1130 Vienna (AT)



# PROGRAM

March 08, 2018

**12:30 Opening, welcome & agenda**

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

**12:40 NIL Applications**

- 12:40 **High Performance Microbatteries and Biosensors via Nanoimprinting of 3-D Metal Oxide Electrodes**  
- James Watkins, University of Massachusetts Amherst
- 13:00 **High-Speed Roll-to-Roll Hot Embossing of Micrometer and Sub Micrometer Structures Using Seamless Direct Laser Interference Patterning treated Sleeves for the Fabrication**  
- Andreas Rank, TU Dresden, Institute of manufacturing technology
- 13:20 **Nanoimprint lithography for advanced light trapping in photovoltaics**  
- Hubert Hauser, Fraunhofer Institute for Solar Energy Systems ISE
- 13:40 **Smart Combination of Nanoimprint Lithography, Nickel Up-plating and Injection Molding for the Manufacturing of Superhydrophobic Plastic Lenses**  
- Markus Guttman, KIT; Institute of Microstructure Technology
- 14:00 **Safe by design bactericidal surfaces via nanoimprinting of surface nanocomposite**  
- Isabel Rodriguez Fernandez, IMDEA Nanociencia

**14:20 Networking & Exhibition**

**15:00 NIL Applications & 3D/Mastering**

- 15:00 **High hardness and anti-fouling moth-eye structures made by UV-NIL**  
- Prof. Jun Taniguchi, Tokyo University of Science
- 15:20 **tba**  
- Markus Rossi, Heptagon Advanced Micro Optics
- 15:40 **Towards industrial scaling of non-CMOS applications using 5keV multi-ebeam lithography**  
- Marcel van Kervinck, Mapper
- 16:00 **Electron Multi-Beam Mask Writing for leading-edge 193, EUV and NIL Masks**  
- Hans Löscher, IMS Nanofabrication

**16:20 Networking & Exhibition**

**16:45 Equipment**

- 16:45 **Challenges and solutions for the industrial production of micro- and nanostructured films and rigid material**  
- Wilfried Schipper, temicon GmbH
- 17:05 **High fidelity replication of complex surface structures by SmartNIL**  
- Martin Eibelhuber, EVG Group
- 17:25 **AutoSCIL: status update on tooling, materials and processes**  
- Marc Verschuren, SCIL Nanoimprint Solutions

17:45 Closing Day 1

18:00 Walk to the Metro-Station „Hietzing“: Transport to the City Centre for Sightseeing Tours

- 18:30 *Sightseeing Tours*
- Imperial Crypt
  - Stephansdom
  - Imperial Treasury

20:00 *Dinner at restaurant „Labstelle“, (Lugeck 6, 1010 Vienna) in cooperation with*



March 09, 2018

**08:00 Networking and Exhibition**

**08:40 Opening, welcome & agenda**

- M. Mühlberger, PROFACTOR

**08:45 Processes and Materials**

- 08:45 **Step&Repeat UV-NIL for polymer shim fabrication and R2R imprinting of micro-optical structures**  
- Ursula Palfinger, Joanneum Research
- 09:05 **Nanoimprint replication of complex and undercut bioinspired nanostructures**  
- Michael Mühlberger, PROFACTOR GmbH
- 09:20 **A novel large area NIL concept for superior surface-patterned optics and automotive applications**  
- Florian Schlachter, AMO GmbH
- 09:40 **Latest Highlights of Materials and Replication Processes for Industrial Micro-Optics Manufacture**  
- Markus Vogler, micro resist Technology GmbH
- 10:00 **tba**  
- Lars Lindvold, Stensborg A/S

**10:20 Networking & Exhibition**

**11:00 3D/Mastering**

- 11:00 **3D grayscale lithography with single nanometer accuracy using the NanoFrazor and its application for Nanoimprint mastering**  
- F. Holzner, SwissLitho
- 11:20 **3D Greytone Lithography Using E-Beam and Laser Direct Write for Master Making**  
- Holger Sailer, Institut fuer Mikroelektronik Stuttgart (IMS CHIPS)
- 11:40 **Structural colour master stamp (fast and cheap, low-tech high-yield) from Morpho peleides butterfly wings**  
- Ille C. Gebeshuber, TU Wien

**12:00 Buffet lunch, Networking & Exhibition**

**13:20 Industrial Applications**

- 13:20 **Fabrication of shallow hydrophobic surfaces using high-resolution grayscale lithography and soft-mold imprint**  
- Robert Kirchner, TU Dresden
- 13:40 **Metasurface Optical Solar Reflectors Using AZO Transparent Conducting Oxides for Radiative Cooling of Spacecraft**  
- Maksim Zalkovskij, NIL Technology ApS
- 14:00 **Aurora: High volume production of micro- and nanostructured glass sheets for display applications**  
- Bram Titulaer, Morphotonics B.V.

14:20 Closing Day 2

Register now: [www.nil-industrialday.org](http://www.nil-industrialday.org)