## Photomask Japan 2017 Poster Presentation

**Date:** April 6  
**Time:** 16:20-17:50

### Session 9a: Materials of and for Photomasks
- **Program No. 9a-1:** Quartz 9-inch size Mask Blanks for ArF PSM (Phase Shift Mask)  
  **Presenter:** Noriyuki Harashima  
  **Affiliation:** ULVAC COATING CORPORATION

### Session 9b: Process
- **Program No. 9b-1:** Mask crosstalk defect between develop to etch process  
  **Presenter:** Yuan Hsu  
  **Affiliation:** Photronics DNP Mask Corp.
- **Program No. 9b-2:** Stabilize OMOG photomask post-repair CD variation by cleaning strategy and post-repair treatment  
  **Presenter:** Vincent Shen  
  **Affiliation:** Photronics DNP Mask Corp.

### Session 9c: Metrology Tools and Technologies
- **Program No. 9c-1:** Old and new techniques mixed up into optical photomask measurement method  
  **Presenter:** Jumpei Fukui  
  **Affiliation:** Nikon Engineering Co., Ltd.
- **Program No. 9c-2:** Quickly Identifying and Resolving Particle Issues in Photolithographic Scanners  
  **Presenter:** Yukinobu Hayashi  
  **Affiliation:** CyberOptics Corporation
- **Program No. 9c-3:** Best Practices for Monitoring Humidity in Emersion Scanner Reticle Environments to Reduce Reticle Haze Effects  
  **Presenter:** Yukinobu Hayashi  
  **Affiliation:** CyberOptics Corporation
- **Program No. 9c-4:** LMS IPRO: enabling accurate registration metrology on SiN-based Phase-Shift Masks  
  **Presenter:** Hendrik Steigerwald  
  **Affiliation:** KLA-Tencor MIE GmbH

### Session 9d: Inspection Tools and Technologies
- **Program No. 9d-1:** Development of Photomask In-situ Inspection system for 1Xnm lithography mask and beyond  
  **Presenter:** Shingo Yoshikawa  
  **Affiliation:** Dai Nippon Printing Co., Ltd.

### Session 9e: Repairing Tools and Technologies
- **Program No. 9e-1:** How Smart is your BEOL? Productivity Improvement through Intelligent Automation  
  **Presenter:** Kristian Schulz  
  **Affiliation:** Carl Zeiss SMT

### Session 9f: EDA & MDP
- **Program No. 9f-1:** Physical Model based Mask Registration Correction  
  **Presenter:** Rivan Li  
  **Affiliation:** Semiconductor Manufacturing International Corp.
- **Program No. 9f-2:** Resolution and Writing Time Improvement by MBMDP Evaluation on Advanced node  
  **Presenter:** SHANG FENG WENG  
  **Affiliation:** United Microelectronics Corporation

### Session 9g: NIL
- **Program No. 9g-1:** The capabilities of measuring cross-sectional profile for hole patterns in nanoimprint templates using small-angle X-ray scattering  
  **Presenter:** Kazuki Hagihara  
  **Affiliation:** Toshiba corporation

### Session 9h: FPD Photomasks Material and Process
- **Program No. 9h-1:** Application of Advanced Structure to Multi-Tone Mask for FPD Process  
  **Presenter:** Jin-Han Song  
  **Affiliation:** PKL Company

### Session 9s: Mask/Lithography Related Technologies in Academia
- **Program No. 9s-1:** Fabrication of Cylindrical Micro-Parts Using Synchronous Scan-Projection Lithography and Chemical Etching  
  **Presenter:** Kaiki Ito  
  **Affiliation:** Tokyo Denki University
- **Program No. 9s-2:** Laser-Scan Lithography and Electrolytic Etching of Fine Pipes with a Diameter of 100 micro-meter  
  **Presenter:** Hiroshi Takahashi  
  **Affiliation:** Tokyo Denki University
- **Program No. 9s-3:** Basic Research on Fabrication of Resist Mold patterns for Electroplating  
  **Presenter:** Kouta Shimizu  
  **Affiliation:** Tokyo Denki University
- **Program No. 9s-4:** Observation of EUVL Mask Using Coherent EUV Scatterometry Microscope with High-Harmonic-Generation EUV Source  
  **Presenter:** Daiki Mamezaki  
  **Affiliation:** University of Hyogo
- **Program No. 9s-5:** Development of Polarization Control Unit with Broadband Mo/Si Multilayer for Accurate EUV Reflectometry  
  **Presenter:** Masanori Watanabe  
  **Affiliation:** University of Hyogo
- **Program No. 9s-6:** Enormous lateral distribution of electrons generated by electron beam in a scanning electron microscope  
  **Presenter:** Shota Nishimura  
  **Affiliation:** Osaka Institute of Technology
- **Program No. 9s-7:** Exposure characteristics of positive tone electron beam resist containing p-chloro-a-methylstyrene  
  **Presenter:** Shunsuke Ochiai  
  **Affiliation:** Yamaguchi University