

## Room 7

### Session 3-7-1: OS08 Nano-scale surface finishing I

OS08-02 Development of a 3-DOF topology- optimized compliant mechanism for shear-thickening fluid polishing

Airi Umezawa, Ashwani Pratap and Anthony Beaucamp

OS08-06 Fluid jet polishing of stainless-steel optical molding inserts

Ashish Kumar, Ashwani Pratap and Anthony Beaucamp

OS08-07 Optimization of oscillation control by simulation for uniform polishing amount in ECMP processing of SiC wafers

Aoi Kaneko, Rongyan Sun, Yuji Ohkubo and Kazuya Yamamura

OS08-08 Surface polishing of YAG ceramics using catalyst-referred etching

Yusuke Yoshida, Kiyoto Kayao, Daisetsu Toh, Jumpei Yamada, Kazuto Yamauchi and Yasuhisa Sano

OS08-09 High-efficiency Polishing of GaN(0001) Substrates Using Catalyst-referred Etching Assisted by Photoelectrochemical Reaction

Kiyoto Kayao, T. Fukagawa, D. Toh, J. Yamada, K. Yamauchi and Y. Sano

### Session 3-7-2: OS08 Nano-scale surface finishing II

OS08-10 Magnetic Field-assisted Mass Polishing of Optical Glasses

Yee Man Loh, Chunjin Wang, Rui Gao, Lai Ting Ho and Chi Fai Cheung

OS08-11 Correction of Mid- and Low-Spatial Frequency Errors in Silicon Mirrors via Dehydration Polishing

Bing Wu, Shengnan Zhang and Hui Deng

OS08-12 Mechanism Study on Polishing of Single-Crystal Silicon with Gas Cluster Ion Beam

Yuan Xie and Hui Deng

OS08-13 Microwave plasma-assisted polishing of poly-crystalline diamond

Xinyu Li and Hui Deng

OS08-14 Study on the conformal polishing process of NiP grating microstructures based on SiO<sub>2</sub>/ Al<sub>2</sub>O<sub>3</sub> composite abrasives

Chuhong He and Hui Deng

### Session 3-7-3: OS08 Nano-scale surface finishing III

OS08-15 Chemical-Assisted Magnetic Compound Fluid Polishing of TA1 Capillary Inner Surface

Wentao zhang, Yufen Xue, Yangke Zheng, Hanqiang Wu and Yongbo Wu

OS08-16 Atomic-Level Smoothing of Silicon Surfaces Using a PMMA Plate in Water: Understanding the Chemical Mechanism

Jianli Guo, Satoru Egawa, Hiroto Motoyama and Hidekazu Mimura

OS08-17 Synthesis of nano-sized cerium oxide particles for chemical mechanical polishing of quartz glass and evaluation of their polishing properties

Xianglong Liu, Akihisa kubota, Makoto Tokuda and Tsutomu Mashimo

OS08-18 Tip-based nanofabrication on a hydrogen-terminated diamond surface by electrochemistry

Jinyan Tang, Mao Peng, Yangyang Li and Yuan-Liu Chen

OS08-19 Planarization of substrate with metal wiring using catalyst-referred etching - Etching characteristic of wiring metal-

Hiroto Yamasaki, K. Kayao, D. Toh, J. Yamada, K. Yamauchi and Y. Sano

### Session 3-7-4: OS08 Nano-scale surface finishing IV

OS08-20 Highly Efficient Etching of GaN (0001) Substrate by Photoelectrochemical Etching

Tatsuya Fukagawa, K. Kayao, T. Daisetsu, J. Yamada, K. Yamauchi and Y. Sano

OS08-22 Electrochemical shear thickening polishing of single crystal silicon carbide

Mengmeng Shen, Wei Hang, Hongyu Chen, Binghai Lyu and Yunxiao Han

OS08-23 Fixed-abrasive electrochemical mechanical polishing of single-crystal silicon

Xiaoze Yang, Shenglong Zhang, Xu Yang, Kazuya Tamamura and Zhuangde Jiang