

OS07 Micro/Nano machining and figurings

**OS07-01** Thermal effect on the mechanical properties of monocrystalline silicon under nanoindentation: a molecular dynamics analysis

Yifan Li, Liangchi Zhang

Southern University of Science and Technology

**OS07-02** Deformation and cracking mechanisms of single crystal indium phosphide induced by nanoscratch

Xuliang Li, Mingyuan Lu and Han Huang

The University of Queensland

**OS07-03** Elliptical vibration ruling of pixelated blazed gratings for the fabrication of anti-counterfeiting structural colors

Mengying Luan, Jinhui Yu, Pingfa Feng, Feng Feng and Jianjian Wang

Tsinghua University

**OS07-04** High-efficiency real-time digital twin-driven slow- tool-servo freeform diamond turning

Qi Liu, Xichun Luo, Wenkun Xie, P. M. Abhilash, Charles Walker and Rajeshkumar Madarkar

University of Strathclyde

**OS07-05** Fabrication of membrane optics by diamond turning combined with spin molding

Zhiyu Zhang, Ruoqi Wang, Chengli Guo, Xuejun Zhang and Jiwang Yan

Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences

**OS07-06** Experimental Investigation on Ultrasonic-assisted Ultraprecision Turning of Zinc Selenide

Spherical Surface with Straight-nosed Diamond Tools

Minghan Chen, Linhe Sun, Hongqiang Qi, Hanqiang Wu and Yongbo Wu

Southern University of Science and Technology

**OS07-07** Investigation on the surface integrity and subsurface damage of SiCp/Al by in-situ laser assisted diamond cutting

Mao Wang, Zongpu Wu, Yunxiang Zheng, Kai Huang, Jianguo Zhang and Jianfeng Xu

Huazhong University of Science and Technology

**OS07-08** Laser-assisted fabrication of micro-structured surface with hierarchical roughness on single-crystal silicon

Changlin Liu, Wai Sze Yip and Suet To

**OS07-09** One-step dry etching of engraved silica nanocones with plasma-induced film-dewetted masks  
Jin Hu and Shaolin Xu  
Southern University of Science and Technology

**OS07-10** Investigating the effects of crystallography on subsurface damage during ultra-precision machining of sapphire  
Aditya nagaraj, Suk Bum Kwon, Dalei xi, Yiyang Du, Woo Kyun Kim and Sangkee Min  
University of Wisconsin-Madison

**OS07-11** Comparative Study about Various Ultraprecision Machine Tools in Mid-Spatial-Frequency Waviness Generation on Optical surface  
Yan Wei, Masahiro Takeda, Takuya Hosobata, Yutaka Yamagata and Shinya Morita  
Tokyo Denki University

**OS07-12** GRA-RSM Analysis of Surface Features Fusion for Micro-Milling UD-CF/PEEK Composites  
Da Qu, Qiwei Wu, Zhihang Li, Xiaoyu Ma, Jianwei Ji, Yang Song and Yong Ma  
Chongqing University of Technology

**OS07-13** Effects of crystal plane and crystal direction in elliptical-vibration-assisted cutting of single crystal magnesium fluoride  
Hiraku Kodama, Ryomei Takabayashi, Shun Fujii, Takasumi Tanabe and Yasuhiro Kakinuma  
Keio University

**OS07-14** Study on Ductile Mode Cutting in Micro Machining of Glass  
Ji Hyo Lee, Ja Yeon Kim and Bo Hyun Kim  
Soongsil University