

OS06 Advanced grinding technologies

**OS06-01** Crystallographic Analyzations of Subsurface Damaged Layers in Wide-bandgap Semiconductor Wafers Using High-Resolution Micro-Raman Tomographic Imaging

Teppei Onuki, Kyo-ichiro Shiba, Yusuke Mogaki, Libo Zhou, Hirotaka Ojima and Jun Shimizu

**OS06-02** Physics informed generative neural network of multireflection interference fringes for optical thickness gauge

Teppei Onuki, Takeshi Mochizuki, Yuta Toshima, Hirotaka Ojima, Jun Shimizu and Libo Zhou

**OS06-03** Wear State Identification of Ordered Grinding Wheel for C/SiC Composites Based on DBO-ELM

Bing Chen and Ye Guo  
Hunan University of Science and Technology

**OS06-04** Application of coarse grained grinding wheels for precision grinding of glassy carbon

Bernhard Karpuschewski, Carsten Heinzl, Oltmann Riemer, Kai Rickens and Barnabas Adam  
Bremen University, Leibniz-IWT

**OS06-05** Creep Feed Grinding Characteristics of Maraging Steel Using Porous Vitrified cBN Wheel

Masakazu Fujimoto and Haruya Tanaka  
Ashikaga University

**OS06-06** Investigation of the Wheel Vibration and Surface Integrity by In-situ Magnetic Field Assisted Parallel Ultra-Precision Grinding of Inconel 718

Te Zhao, Tengfei Yin, Yi Tan, Denghui Li and Suet To  
The Hong Kong polytechnic university

**OS06-07** Experimental investigation of the impact of machining conditions on AE signal in grinding process

Zongwei Ren and Hayato Yoshioka  
The University of Tokyo

**OS06-08** Towards Uniformity and Efficiency: Managing the Free-Form Surface Polishing through Kinematic Analysis and Trajectory Planning

Zipu Yan and Liangchi Zhang  
Southern University of Science and Technology

**OS06-09** Exploration of grinding heat diffusion pattern within Ti-6Al-4V workpieces

Yujun Wu and Weimin Lin  
Gunma University

<p><b>OS06-10</b> Study of surface integrity on high-speed grinding of iron metal  Juan Chen, Bi Zhang and Suet To  The Hong Kong Polytechnic University</p>
<p><b>OS06-12</b> Deformation and Material Removal Mechanisms in Nano-Scratching of Single-Crystal Aluminum Nitride  Haoxiang Wang, xiaoguang Guo, Zhigang Dong, Renke Kang and Shang Gao</p>
<p><b>OS06-13</b> Possibilities of Reduction in Sliding Friction by Addition of Ultra Fine Bubbles to Coolant  Koju Hiraki, Ryuta Isizumi, Renma Sumiyoshi, Takeshi Watanabe, Yuki Hara, Nobuyuki Izuhara, shigeru Taniguchi, Shoko Yamada and Ryoichi Yagami  Kyushu Institute of Technology</p>
<p><b>OS06-14</b> Development of abrasive grain detection system by machine learning  Kunon Hayashi, Atsuhiko Sawada, Hirotaka Ojima, Libo Zhou and Teppei Onuki  Ibaraki University</p>
<p><b>OS06-15</b> Effect of Ultra-fine bubbles coolant on SF truing of resin bonded coarse diamond wheel  Muzhi Li, Shinichi Nimomiya, Satoshi Anzai, Tetsuo Nomura and Manabu Iwai  NIPPON INSTITUTE OF TECHNOLOGY</p>
<p><b>OS06-16</b> Evaluation on fine cutting edges of PCD grinding tool and mirror finishing surface on SiC substrates  Haruto Konishi, Takashi Fujita, Ryota Fukunaga, Yuki Izutani, Yasuo Izumi and Junji Watanabe</p>
<p><b>OS06-17</b> Ionic conductivity and mechanical properties of electrolytic grinding tool consisting of diamond/PEO solid polymer electrolyte  Taiyo Nakamura, Tsunehisa Suzuki, Tatsuya Fujii, Mitsuyoshi Nomura and Takashi Mineta  Akita Prefectural University</p>
<p><b>OS06-18</b> Experimentally backed simulation of textured CBN grinding wheels for an enhanced performance  Vahid Mousavi, Suzan Behrouzbaraghi and Erhan Budak</p>

**OS06-19** Effect of CNT addition on the curing process in molding of CNT composite phenolic resin bonded grinding tools

Ryoga Tsuiki, Tsunehisa Suzuki, Tatsuya Fujii, Mitsuyoshi Nomura and Tomoya Abe  
Akita Prefectural University

**OS06-20** Direct observation of the clogging development during the grinding process

Haonan Ren, Toru Kizaki, Hiroyuki Kamura, Takayuki Nishizawa, Chao Wang and Naohiko Sugita  
University of Tokyo

**OS06-21** Fretting wear mechanism of DZ125 surface created by WEDM

Haohan Zhang, Jing Ni and Zhen Zhang  
Hangzhou Dianzi University