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Titolo	Ultra-precision machining process and surface finishing technology : selected, peer reviewed papers fromt he 10th CHINA-JAPAN International Conference on Ultra-Precision Machining Process (10th CJUMP) and 2014 International Conference on Surface Finishing Technology (ICSFT 2014), October 17-19, 2014, Jiaozuo, China / / edited by Bo Zhao [and three others]
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Nota di bibliografia	Includes bibliographical references at the end of each chapters and indexes.
Nota di contenuto	Ultra-Precision Machining Process and Surface Finishing Technology; Preface, Organization and Sponsors; Table of Contents; Chapter 1: Ultra-Precision Machining Process and Instrumentation; Effects of Processing Parameters of Oxide Layer in Ultrasonic Vibration and Electrolytic In-Process Dressing Combined Grinding; An Experimental Investigation of Temperatures in Grinding of Ceramics with a Brazed Diamond Tool; Analysis and Simulation of Air Flow Field Surrounding Grinding Wheel; Design and Test of Piezoelectric Tool Actuator on Ultra-Precision Machine Tool for KDP Crystals An Optimal Method of Tool Path Generation for Radial Sinusoidal SurfaceDesign Method of Gear Form Grinding Machine Based on QFD and AHP; Analysis of Temperature and Thermal Stress Distribution on KDP Crystal Wire Saw Slicing; Diamond Tool Wear Reduction by Combining Ultrasonic Elliptical Vibration with Graphite Particle Atmosphere; Tool Wear Properties of Diamond-Cutting Ferrous Metal; The Research and Development on the Material Removal Mechanism of the Ultrasonic Cutting; The Pressure Field Radiated by Cavitation Bubble

in the Grinding Area of Power Ultrasonic Honing
 Study on Grinding Force of High Volume Fraction SiCp/Al Composites
 with Rotary Ultrasonic Vibration Grinding Study on Polishing Technology
 for Hard-Brittle Materials by a Micro Abrasive Water Jet; Study on
 Process Parameters in CMP Ultra-Thin Stainless Steel Sheet; The Finite
 Element Analysis for Ultra-Precision Single-Plane Lapping Machine Bed;
 Lapping and Polishing of Sapphire Wafer with Fixed Abrasive Pad;
 Machining Mechanism of Fresnel Lens Mold; Optimization of Milling
 Parameters of CFRP for Surface Roughness Using Taguchi Design
 Method
 Oxidant for Chemical Mechanical Polishing of Single Crystal
 Diamond Performance of Brazed Diamond Tool for Machining Dental
 Ceramic; Process Experiment Research and Equipment Development of
 ELID Lapping; Design of Lapping Paste in Lapping 304 Ultra-Thin
 Stainless Steel Sheet; Research on Cylindrical Precision Machining
 Adopting ELID Grinding Technology; Research on Elastic-Plastic
 Transition and Hardening Effect for Monocrystalline Silicon Surfaces;
 Research on ELID Grinding Efficient Surface Forming Mechanism of
 SiCp/Al Composites
 Research on the Laws of Wear Rate of Grinding Block in Grinding
 SiC Simulation of Ground Surface Residual Stress for Surface Integrity in
 Small Depth of Cut; Influence of Grinding Parameters on Residual Stress
 of Nano-ZrO₂ Ceramics; Experimental Study on Removal
 Characteristics of Ceramic Materials in Ultrasonic Aided High Efficiency
 Lapping; Experimental Investigation on Grinding Temperature of
 Titanium Alloy; Study on the Effect of Vibration Amplitude in Two-
 Dimension Ultrasonic Vibration Cutting; In Situ Measurement and
 Compensation Turning Technique of Deep MgF₂ Conformal Dome
 Investigation of Surface Integrity on TC4-DT in High Speed Grinding
 with CBN Wheel

Sommario/riassunto

Collection of selected, peer reviewed papers from the 10 th CHINA-JAPAN International Conference on Ultra-Precision Machining Process (10th CJUMP) and 2014 International Conference on Surface Finishing Technology (ICSFT 2014), October 17-19, 2014, Jiaozuo, China. The 76 papers are grouped as follows: Chapter 1: Ultra-Precision Machining Process and Instrumentation, Chapter 2: Surface Finishing Technology, Chapter 3: Design, Fabrication and Analysis of Devices and Materials for the Applications of Machining Technologies.
