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Nota di contenuto	Advances in Materials Manufacturing Science and Technology XIII Volume I; Preface; Sponsors; Table of Contents; I. Advanced Manufacturing Technology and Equipment; Reclamation of Polymer PET Substrate Using T-Form Tool ; Tool Wear Monitoring: An Automated System Based on Multiple Cutting Force Parameters and Machine Vision Technique; The Predictive Model of Surface Roughness and Searching System in Database for Cutting Tool Grinding; Experimental Study of Tangential-Feed Centerless Grinding Process Performed on Surface Grinder Simulation Investigation of Tangential-Feed Centerless Grinding Process Performed on Surface GrinderDamaged Layer Analysis for AFM- Based Mechanical Modifications on (100) Si Surface; A Two- Dimensional Ultrasonically Assisted Grinding Technique for High Efficiency Machining of Sapphire Substrate; Analysis of Factors Effecting Profile Accuracy of Metal-Bonded Ball-Headed Diamond Wheel in Electrical Discharge Dressing Process; Study on the Machinability of Glass Soda-Lime in Diamond Cutting Process; Research on Deliquescent Polishing Fluid for KDP Crystals

Axiomatic Design of High Speed Milling Cutter and Fuzzy Object Element Evaluation for Dynamic Cutting Performance; Effect of Cutting Speed on Chip Fracture Strain in High Speed Cutting; Influence of Chip Curl on Tool-Chip Contact Length in High Speed Machining; Theoretical Model of Grinding Force in Quick-Point Grinding; Modeling and Simulation of Control System for Power Magnetic Bearings; High Precision Timing of the Copying Control System Based on Windows 2000; Investigation on Unitary Piezoelectric Four-Component Cutting Dynamometer

Effect of Cutting Parameters on Diamond Tool Life during Cutting Stainless Steel; Calculating of the Temperature Distribution of Primary Shear Zone in Orthogonal High Speed Cutting Based on the Non-Uniform Volume Moving Heat Source; A Novel Design of Calibration Equipment for 6-Component Huge Force Sensor and Coupling Modification; Tool-Life Optimization in High-Speed Milling of Aeronautical Aluminum Alloy 7050-T7451; Experimental Research on Surface Roughness in High Speed Milling of Complex Surface Mold Steel

Design Optimization of Cutting Parameters Using Taguchi Method and ANOVA during High-Speed Machining Hardened H13 Steel; Research on Thermal Error Modeling of NC Machine Tool Based on BP Neural Networks; Folding Method and Controlling Tactics of the Tire Building Hub Based on the Parallel Mechanism; The Study on the Surface Abrasion about Wafer Final Polishing; Study on the AE Signal Based Grinding Contact Detection Method for Thin-Walled Ceramic Materials; Analysis and Measurement of Effective Flow-Rate in Flood Grinding CBN Slipstone Super-Accurate Grinding Theoretical Analysis and Application

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#### Sommario/riassunto

This special volume comprises a collection of 139 papers chosen, from among 510 submissions from universities and industries all over the world, on the basis of their quality and relevance to the central topic. All of the papers were peer-reviewed by selected experts and mirror the latest developments in the field of materials manufacturing technology; ranging from the fundamentals, to new technologies and applications. The papers specifically cover the topics of advanced manufacturing technology and equipment, and manufacturing systems and automation. This book therefore constitutes a valuable

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