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Nota di contenuto	Advances in Abrasive Technology XVII; Preface, Committees and Sponsors; Table of Contents; Chapter 1: Abrasive Machining; On the Profile and Microstructure Variations of Grinding-Induced Hardening Layer in A Cylindrical Workpiece; Study on Grinding Force Distribution on Cup Type Electroplated Diamond Wheel in Face Grinding of Cemented Carbide; Investigations on Belt Grinding of GH4169 Nickel-Based Superalloy; Basic Study on High Efficiency Ultra-Precision Grinding of the Optical Glass Lens; Studies on Grinding Conditions Affecting the Quality of Soft Magnetic Powder Cores Effect of Coolant Supplied through Grinding Wheel on Residual Stress of Grinding Surface Multi-Hole Drilling Method by Abrasive Blasting for CFRP and Composite Materials: Investigation of a Processing Model Based on Abrasive Erosion Phenomenon; A Controllable Material Removal Strategy Considering Force-Geometry Model in Marine Propeller Five-Axis Belt Grinding; Form Accuracy of Internal Grinding of Small and Deep Holes with Coolant Supplied from Inner Side of Grinding Wheel; An Experimental Study on Grinding Fir-Tree Root Forms Using Vitrified CBN Wheels

Deformation and Removal Characteristics of Multilayered Thin Film Structures in Nanoscratching and Diamond LappingInfluence of Work Speed on Surface Quality with Rapid Rotation Mirror-Like Surface Grinding; Estimation of Grinding Cycle Time Taking into Account Specific Grinding Force; Study on the Shape Error in the Cylindrical Traverse Grinding of a Workpiece with High Aspect Ratio; Research on Material Removal Mechanism of Single Grit Cutting Based on FEM Simulation; A Preliminary Study of Surface Integrity and Wheel Wear in the Grinding of Multilayered Thin Film Structures

Experiment Research on ZrO₂ Engineering Ceramics with Abrasive Belt GrindingResearch on Grinding of Silicon Particles Reinforced Aluminum Matrix Composites with High Volume Fraction; Investigation of Grinding Characteristics of Cemented Carbides YL10.2 and YF06; Optimization of Grinding Conditions in Non-Axisymmetric Aspherical Grinding; Study on the Grinding Machinability of 9Mn2V under Different Heat Treatment Processes; Study on Force Characteristics of Ultrasonic Vibration-Assisted Sawing Ceramics with Diamond Blade; Chapter 2: Surface Quality

Investigation of Glass Polishing Motion Based on Micro-Oscillating Pressing Force with a Compact Robot and Fine Diamond

StoneDevelopment of Non-Destructive Inspection System for Grinding Burn-in-Process Detection of Grinding Burn; Feature Extraction Based 3D Model Registration for Surface Finish Quality Evaluation; Dry Sliding Wear Behaviour of Full Pearlite Obtained by Cladding Low Carbon Steel to Hypoeutectoid Steel; Material Properties of a New PCD Made of Boron Doped Diamond Particles; Dynamic Friction Polishing of Diamond Utilizing High Reactive Metallic Tools

Evaluation and ANN-Based Prediction on Functional Parameters of Surface Roughness in Precision Grinding of Cast Iron

Sommario/riassunto

Collection of selected, peer reviewed papers from the 17th International Symposium on Advances in Abrasive Technology (ISAAT 2014), September 22-25, 2014, Hawaii, USA. The 138 papers are grouped as follows: Chapter 1: Abrasive Machining, Chapter 2: Surface Quality, Chapter 3: Brittle Material Machining, Chapter 4: Grinding Wheel, Chapter 5: High Efficiency Machining, Chapter 6: Cutting Technology, Chapter 7: Tribology in Manufacturing, Chapter 8: Micro/Nano Machining, Chapter 9: Finishing/Lapping/Polishing, Chapter 10: System Development, Chapter 11: Monitoring & Analysis, Chapter 12: Metrology
