

Table of Contents

Preface

| | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| Microstructure of Built Part Obtained by Powder Bed Fusion Process with Metal T. Furumoto, K. Egashira, S. Matsuura, M. Nikawa, M. Okada, T. Koyano, Y. Hashimoto and A. Hosokawa | 1 |
| Thermo-Mechanical Analysis of Laser Additive Manufacturing for Metals H.H. Shih and C.K. Lin | 7 |
| Influence of Tool Feed Conditions on Surface Integrity in Roller Burnishing with Rolling and Sliding Effects M. Okada, M. Shinke, T. Kitagawa, T. Inoue, S. Yasutani, T. Miura and M. Otsu | 13 |
| Design Modification of Additive Manufacturing Parts Using Texture Information of 3D Model T.C. Wu, J.Y. Lai, Y.W. Tseng, C.Y. Liao and J.Y. Lee | 19 |
| Effect of Pick Feed on Machining Characteristic of Up Cutting in the High-Efficient Machining by Small Diameter Radius End Mill H. Nakai, T. Sawa and M. Anzai | 31 |
| Study on High Quality Thermal Stress Cleavage of Thick Sapphire Wafer T. Kawabe, T. Furumoto, Y. Hashimoto, T. Koyano, Y. Ochi, K. Oguchi, Y. Chino and A. Hosokawa | 39 |
| Effects of Preheating Temperature at Primary Shear Zone in Laser Assisted Milling Process K. Jamkamon, K. Yamada, K. Sekiya and R. Tanaka | 45 |
| Decorative Film Formation by Inkjet Printing with Gold Nanoparticles for Synthetic Resin Crafts M. Yamaguchi, S. Kambayashi, S. Sakamoto, Y. Kondo and K. Yamaguchi | 51 |
| Effect of Face-Milling Process Parameters on Deformation of AISI304 H. Masahiro, I. Kouji, U. Hiroshi and I. Takashi | 56 |
| Surface Roughening of Silicon Wafer Solar Cell by Using ECDM Method H.P. Tsui, K.H. Chang and B.H. Yan | 62 |
| Synthesizing Cubic Diamond Crystal Using DC Plasma Jet CVD H. Toyota, X. Zhu, R. Shiraishi, K. Nakajima, Y. Iwamoto and S. Nomura | 71 |
| Simultaneous Synthesis of Diamond and Hydrogen R. Shiraishi, H. Toyota, S. Nomura, K. Nakajima, X. Zhu and Y. Iwamoto | 77 |
| Surface Characteristics with Curved Grinding of a Titanium Alloy with Coolant Supplied from the Inner Side of the Grinding Wheel S. Toyokawa, N. Nagatoshi, A. Kusakabe and H. Sasahara | 84 |
| Effect of the Type of Grinding Wheel on the Surface Characteristics of a Titanium Alloy with Internal Coolant Supply N. Nagatoshi, S. Toyokawa, A. Kusakabe, S. Nakatsukasa and H. Sasahara | 92 |
| Effect of Amorphous Silicon Carbide Interlayer on Diamond-Like Carbon Film Structure and Film Hardness Y. Kimura, X. Zhu, H. Toyota, R. Shiraishi, Y. Iwamoto and S. Nomura | 99 |
| Manufacturing of Cycloid Tooth Profile for RV and Cyclo Drives by Threaded Wheel Hobbing and Grinding L.C. Chang, S.J. Tsai, J.S. Wei and P.C. Chen | 106 |
| The Influence of Magnetic Fiber Orientation on the Electric Properties of Conductive Polymer Composite Material by Using Magnetic-Assisted Injection Molding C.Y. Chung, S.C. Chen and K.J. Lin | 114 |
| Cutting Force Changes during One Cut in End Milling with a Throw-Away Insert - Difference between Up-Cut and Down-Cut - K. Matsuda, R. Tanaka, K. Sekiya and K. Yamada | 123 |
| Analytical Computing Stresses and Strains in Single Point Incremental Forming L.K. Dien, L.K. Tan, V.T. Nguyen, H.B. Nguyen and T.N. Nguyen | 129 |
| Combined Cyclic-Static Bending Effect on the Encapsulation Properties of a Barrier Thin Film for Flexible Organic Optoelectronic Devices D.P. Tran, C.K. Lin and B.D. To | 140 |