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**Theme:** Cubic boron nitride (cBN) curvilinear micro-textured cutting tool surfaces for high performance machining

## Related Presentation/Publication


K. Jarosz, E. Ukar, A. Krödel, T. Özel, "Laser ablation and processing of polycrystalline cubic boron nitride cutting tool material," International Journal of Advanced Manufacturing Technology, DOI: 10.1007/s00170-021-07996-2, Published: 08 September 2021.

K.V. Patel, K. Jarosz, T. Özel, "Physics-Based Simulations of Chip Flow over Micro-Textured Cutting Tool in Orthogonal Cutting of Alloy Steel," Journal of Manufacturing and Materials Processing, Vol. 5, Issue 3, (2021) p. 65 (1-16) DOI: 10.3390/jmmp5030065.

L. Yang, Z. Deng, B. He, T. Özel, "An experimental investigation on laser surface texturing of AISI D2 tool steel using nanosecond fiber laser," Lasers in Manufacturing and Materials Processing, Vol. 8, (2021), pp. 140–156 [CS:2.5] DOI: 10.1007/s40516-021-00144-4.

K. Patel, G. Liu, S.R. Shah, T. Özel, "Effect of Micro-Textured Tool Parameters on Forces, Stresses, Wear Rate and Variable Friction in Titanium Alloy Machining," Journal of Manufacturing Science and Engineering, (2020) Vol. 142, Issue 2, 021007 (17 pages) DOI:10.1115/1.4045554.

G. Liu, C. Huang, R. Su, T. Özel, Y. Liu, L. Xu "3D FEM Simulation of The Turning Process of Stainless Steel 17-4PH with Differently Texturized Cutting Tools," International Journal of Mechanical Sciences Vol. 155, (2019), pp. 417-429.

K. Patel, S.R. Shah, T. Özel, "Orthogonal cutting of alloy steel 4340 with micro-grooved cutting tools," Procedia CIRP, 2019, Vol. 82, pp. 178-183. 17th CIRP Conference on Modelling of Machining Operations, June 13-14, 2019, Sheffield, United Kingdom