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Research Papers

Computational Study of the Effect of Governing Parameters on a Polymer Injection Molding Process for Single-Cavity and Multicavity Mold Systems

M. Tutar and A. Karakus

J. Manuf. Sci.

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The Effect of Laser Beam Geometry on Cut Path

Deviation in Diode Laser Chip-Free Cutting of Glass

Salman Nisar, M. A. Sheikh, Lin Li, Andrew J. Pinkerton and Shakeel Safdar

J. Manuf. Sci.

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Experimental Study on Viscosity and Phase

Segregation of Al–Si Powders in Microsemisolid Powder Forming

Yufeng Wu, Gap-Yong Kim, Iver E. Anderson and Thomas A. Lograsso

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Polymer Film Production: Modeling and Control of the

Forward Draw

C. R. MacLaine, P. Acarnley, J. Shanahan, P. Mousalli and M. Deighton

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Focused Ion-Beam Based Nanohole Modeling,

Simulation, Fabrication, and Application

Jack Zhou and Guoliang Yang

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The Impact of Surface Forces on Particle Flow and

Membrane Fouling in the Microfiltration of Metalworking Fluids

Seounghyun Ham, Shiv G. Kapoor, Richard E. DeVor and John Wentz

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Printing (3DP) Material Systems

Ben R. Utela, Duane Storti, Rhonda L. Anderson and Mark Ganter

Development Process for Custom Three-Dimensional

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Picosecond Laser Ablation

Wenqian Hu, Yung C. Shin and Galen B. King

Micromachining of Metals, Alloys, and Ceramics by

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Deposition Processes—Part I: Online Temperature Control

Lie Tang and Robert G. Landers

Melt Pool Temperature Control for Laser Metal

J. Manuf. Sci.
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Deposition Processes—Part II: Layer-to-Layer Temperature Control

Lie Tang and Robert G. Landers

Melt Pool Temperature Control for Laser Metal

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Titanium Alloy: A Parametric Evaluation

Alex Chillman, M. Ramulu and M. Hashish

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of Borosilicate Glass Sheet

Dongjiang Wu, Guangyi Ma, Fangyong Niu and Dongming Guo

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New Models and Global Stability Charts to Avoid

Principal Instabilities and Constraints in Throughfeed Centerless Grinding

D. Barrenetxea, J. Álvarez, J. I. Marquínez, J. Madariaga, I. Gallego and I. Muguerza Perelló

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Adaptive Control of
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Polishing Process

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Local Thinning at a Die
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Pressure Forming of an AA5083 Sheet

Eric M. Taleff, Louis G. Hector, John R. Bradley, Ravi Verma and Paul E. Krajewski

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Droplet Behavior on a
Rotating Surface for

Atomization-Based Cutting Fluid Application in Micromachining

Isha Ghai, John Wentz, Richard E. DeVor, Shiv G. Kapoor and Johnson Samuel

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Deformation Size Effects
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Size in Microbending

Sunal Ahmet Parasiz, Reid VanBenthysen and Brad L. Kinsey

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A New Method for Discharge State Prediction of Micro-EDM Using Empirical Mode Decomposition

Zhenyuan Jia, Lingxuan Zhang, Fuji Wang and Wei Liu

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Develop a Robot-Aided
Area Sensing System for 3D

Shape Inspection

Quan Shi, Ning Xi and Chi Zhang

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Simulation of a Refill
Friction Stir Spot Welding

Process Using a Fully Coupled Thermo-Mechanical FEM Model

Karim H. Muci-Küchler, Sindhura Kalagara and William J. Arbegast

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Study on Spinning Process of a Thin-Walled Aluminum

Alloy Vessel Head With Small Ratio of Thickness to Diameter

Yanqiu Zhang, Debin Shan, Wenchen Xu and Yan Lv

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Modeling of the Thread Milling Operation in a

Combined Thread/Drilling Operation: Thrilling

Martin B. G. Jun and Anna Carla Araujo

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