**DESCRIPTION**

This book is the first of its kind to collectively address design-based and mechanical micro-manufacturing topics in one place. It focuses on design and materials selection, as well as the manufacturing of micro-products using mechanical-based micro-manufacturing process technologies. After addressing the fundamentals and *non-metallic-based* micro-manufacturing processes in the semiconductor industry, it goes on to address specific *metallic-based* micro-manufacturing processes, such as: micro-forming, micro-machining, micro-molding, micro-laser processing, micro-layered manufacturing, micro-joining, micro-assembly and materials handling, and microEDM and ECM. The book provides an in-depth understanding of materials behavior at micro-scales and under different micro-scale processing conditions, while also including a wide variety of emerging micro-scale manufacturing issues and examples.

**ABOUT THE AUTHOR**

*Muammer Koç, PhD*, is the Director of National Science Foundation (NSF)-Industry/University Cooperative Research Center (I/UCRC) on Precision Forming (CPF), Associate Professor in the Department of Mechanical Engineering at Virginia Commonwealth University; and Associate Professor of Department of Industrial Engineering at Istanbul Sehir University. His research interests include manufacturing processes and systems, micro-manufacturing, design of nano/micro-scale functional surface structures, and product innovation.
Tu# rul Özel, PhD, is the Director of Manufacturing Automation Research Laboratory and Associate Professor in the Department of Industrial and Systems Engineering at Rutgers University in New Jersey. His research interests include manufacturing processes and automated systems, computational modeling of machining processes, laser-based micro/nano processing, and design and manufacturing of micro-products.

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