

Micro and nano machining of engineering materials: Recent developments

Deskripsi Lengkap: <https://lib.ui.ac.id/detail?id=9999920521612&lokasi=lokal>

Abstrak

This book covers the recent developments in the production of micro and nano size products, which cater to the needs of the industry. The processes to produce the miniature sized products with unique characteristics are addressed. Moreover, their application in areas such as micro-engines, micro-heat exchangers, micro-pumps, micro-channels, printing heads and medical implants are also highlighted. The book presents such microsystem-based products as important contributors to a sustainable economy.

The recent research in this book focuses on the development of new micro and nano manufacturing platforms while integrating the different technologies to manufacture the micro and nano components in a high throughput and cost effective manner. The chapters contain original theoretical and applied research in the areas of micro- and nano-manufacturing that are related to process innovation, accuracy, and precision, throughput enhancement, material utilization, compact equipment development, environmental and life-cycle analysis, and predictive modeling of manufacturing processes with feature sizes less than one hundred micrometers.