1. Record Nr. UNINA9910688418803321

Titolo	Micro/Nano Manufacturing / / edited by Guido Tosello and Hans Hansen
Pubbl/distr/stampa	Basel, Switzerland : , : MDPI - Multidisciplinary Digital Publishing Institute, , 2017
ISBN	3-03842-605-9
Descrizione fisica	1 online resource (190 pages) : illustrations
Disciplina	620.115
Soggetti	Nanostructured materials
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Sommario/riassunto	Micro- and nano-scale manufacturing has been the subject of ever more research and industrial focus over the past 10 years. Traditional lithography-based technology forms the basis of micro-electro-mechanical systems (MEMS) manufacturing, but also precision manufacturing technologies have been developed to cover micro-scale dimensions and accuracies. Furthermore, these fundamentally different technology platforms are currently combined in order to exploit the strengths of both platforms. One example is the use of lithography-based technologies to establish nanostructures that are subsequently transferred to 3D geometries via injection molding. Manufacturing processes at the micro-scale are the key-enabling technologies to bridge the gap between the nano- and the macro-worlds to increase the accuracy of micro/nano-precision production technologies, and to integrate different dimensional scales in mass-manufacturing processes. Accordingly, this Special Issue seeks to showcase research papers, short communications, and review articles that focus on novel methodological developments in micro- and nano-scale manufacturing, i.e., on novel process chains including process optimization, quality assurance approaches and metrology.