

1. Record Nr.	UNINA9910674380403321
Autore	Tosello Guido
Titolo	Latest Advancements in Micro Nano Molding Technologies : Process Developments and Optimization, Materials, Applications, Key Enabling Technologies // Guido Tosello
Pubbl/distr/stampa	Basel, Switzerland : , : MDPI - Multidisciplinary Digital Publishing Institute, , 2022
Descrizione fisica	1 online resource (150 pages)
Disciplina	620.5
Soggetti	Nanotechnology Nanostructured materials Technological innovations
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Sommario/riassunto	<p>Micro- and nano-molding technologies are continuously being developed due to enduring trends like increasing miniaturization and higher functional integration of products, devices, and systems. Furthermore, with the introduction of higher performance polymers, feedstocks, and composites, new opportunities in terms of material properties can be exploited, and, consequently, more micro-products and micro/nano-structured surfaces are currently being designed and manufactured. Innovations in micro- and nano-molding techniques are seen in the different processes employed in production (injection molding, micro injection molding, etc.); on the use of new and functional materials; for an ever-increasing number of applications (health-care devices, micro-implants, mobility, and communications products, optical elements, micro-electromechanical systems, sensors, etc.); in several key enabling technologies that support the successful realization of micro and nano molding processes (micro- and nano-tooling technologies, process monitoring techniques, micro- and nanometrology methods for quality control, simulation, etc.) and their integration into new manufacturing process chains. This Special Issue</p>

reprint showcases research papers and review articles that focus on the latest developments in micro-manufacturing and key enabling technologies for the production of both micro-products and micro-structured surfaces.
