1.	Record Nr.	UNINA9910144117503321
	Titolo	Microengineering of metals and ceramics . Part I Design, tooling and injection molding [[electronic resource] /] / volume editors, Detlef Lohe and Jurgen Haubelt
	Pubbl/distr/stampa	Weinheim, : Wiley-VCH, c2005
	ISBN	1-281-84298-2 9786611842987 3-527-61672-1 3-527-61694-2
	Descrizione fisica	1 online resource (394 p.)
	Collana	Advanced micro & nanosystems ; ; v. 3
	Altri autori (Persone)	LoheDetlef HausseltJurgen
	Disciplina	620.14
	Soggetti	Micromechanics Ceramic materials - Microstructure Metals - Microstructure Microtechnology Injection molding of ceramics Injection molding of metals Electronic books.
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Note generali	Description based upon print version of record.
	Nota di bibliografia	Includes bibliographical references and indexes.
	Nota di contenuto	Advanced Micro & Nanosystems Volume 3 Microengineering of Metals and Ceramics; Preface; Foreword; Contents; List of Contributors; Subject Index; I Design; 1 Design Environment and Design Flow; 2 Modeling and Validation in Design; 3 Modeling Micro PIM; II Tooling; 4 Strategies for the Manufacture of Mold Inserts; 5 Micro End Milling of Hardened Steel; 6 3D Microstructuring of Mold Inserts by Laser-based Removal; 7 Micro-EDM for Mold Inserts; 8 Lithographic Fabrication of Mold Inserts; 9 Material States and Surface Conditioning for Mold Inserts III Replication Techniques - Microinjection Molding10 Microinjection Molding - Principles and Challenges; 11 Micro Metal Injection Molding;

	12 Micro Ceramic Injection Molding
Sommario/riassunto	Microstructures, electronics, nanotechnology - these vast fields of research are growing together as the size gap narrows and many different materials are combined. Current research, engineering sucesses and newly commercialized products hint at the immense innovative potentials and future applications that open up once mankind controls shape and function from the atomic level right up to the visible world without any gaps.In this volume, authors from three major competence centres for microengineering illustrate step by step the process from designing and simulating microcomponents of