1. Record Nr. UNINA990003972020403321

Autore	Incropera, Frank P.
Titolo	Fundamentals of Heat and Mass Transfer : 2ed. / Incropera F. P. , De Witt D. P.
Pubbl/distr/stampa	Singapore : John Wiley & sons, 1985
Edizione	[2]
Disciplina	536
Locazione	DETEC
Collocazione	00 A1216
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia

2. Record Nr. UNINA9910437889403321

Titolo	Smart materials-based actuators at the micro/nano-scale : characterization, control, and applications / / Micky Rakotondrabe, editor
Pubbl/distr/stampa	New York, : Springer, 2013
ISBN	1-4614-6684-9
Edizione	[1st ed. 2013.]
Descrizione fisica	1 online resource (xii, 271 pages) : illustrations (some color)
Collana	Gale eBooks
Altri autori (Persone)	RakotondrabeMicky
Disciplina	620 620.1/1 620.11 620.5
Soggetti	Actuators - Materials
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 index.

Nota di contenuto	Introduction: Smart Materials as Essential Base for Actuators in Micro/Nanopositioning -- Characterization and Dynamics of Polymer Microactuators -- Design of Piezoelectric Actuators with Guaranteed Performances using the Performances Inclusion Theorem and Interval Tools -- Modeling and Robust H Control of a Nonlinear and Oscillating 2-dof multimorph cantilevered piezoelectric actuator -- A Hybrid Control Approach to nanopositioning -- Interval modeling and robust feedback control of Piezoelectric-Based Microactuators -- Kalman Filtering and State-Feedback Control of a Nonliear Piezoelectric Cantilevered Actuator -- Intelligent Hysteresis Modeling and Control of Piezoelectric Ac-tuators -- Compensation of Rate-Dependent Hysteresis in a Piezomicropositioning Actuator -- Feedforward Control of Flexible and Nonlinear Piezoelectric Actuators -- Micro/Nanorobotic Manufacturing Thin-film NEMS Force Sensor -- Human Sperm Tracking, Analysis, and Manipulation.
Sommario/riassunto	Smart Materials-Based Actuators at the Micro/Nano-Scale: Characterization, Control, and Applications gives a state of the art of emerging techniques to the characterization and control of actuators based on smart materials working at the micro/nano scale. The book aims to characterize some commonly used structures based on piezoelectric and electroactive polymeric actuators and also focuses on various and emerging techniques employed to control them. This book also includes two of the most emerging topics and applications: nanorobotics and cells micro/nano-manipulation. This book: Provides both theoretical and experimental results Contains complete information from characterization, modeling, identification, control to final applications for researchers and engineers that would like to model, characterize, control and apply their own micro/nano-systems Discusses applications such as microrobotics and their control, design and fabrication of microsystems, microassembly and its automation, nanorobotics and their characterization Smart Materials-Based Actuators at the Micro/Nano-Scale: Characterization, Control, and Applications is ideal for industry professionals, researchers, and undergraduate, Master’s or Ph.D. students interested in the characterization and control of actuators at the micro/nano scale.