1. Record Nr. UNINA9910254211703321

Autore	Cotta Renato M
Titolo	Analytical Heat and Fluid Flow in Microchannels and Microsystems / / by Renato M. Cotta, Diego C. Knupp, Carolina P. Naveira-Cotta
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2016
ISBN	3-319-23312-2
Edizione	[1st ed. 2016.]
Descrizione fisica	1 online resource (175 p.)
Collana	Mechanical Engineering Series, , 0941-5122
Disciplina	532.05
Soggetti	Thermodynamics Heat engineering Heat - Transmission Mass transfer Fluid mechanics Nanotechnology Engineering Thermodynamics, Heat and Mass Transfer Engineering Fluid Dynamics Nanotechnology and Microengineering
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.
Nota di contenuto	Fundamentals and Methodologies -- Heat and Fluid Flow in Single Microchannels -- Heat and Fluid Flow in Microsystems.
Sommario/riassunto	This book focuses on the modeling and analysis of heat and fluid flow in microchannels and micro-systems, compiling a number of analytical and hybrid numerical-analytical solutions for models that account for the relevant micro-scale effects, with the corresponding experimental analysis validation when applicable. The volume stands as the only available compilation of easy to use analytically-based solutions for micro-scale heat and fluid flow problems, that systematically incorporates the most relevant micro-scale effects into the mathematical models, followed by their physical interpretation on the micro-system behavior.