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Descrizione fisica	1 online resource (441 p.)
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Soggetti	Thermodynamics Heat engineering Heat transfer Mass transfer Electronic circuits Power electronics Engineering Thermodynamics, Heat and Mass Transfer Electronic Circuits and Devices Power Electronics, Electrical Machines and Networks
Lingua di pubblicazione	Inglese
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Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Introduction -- Fundamentals -- Oscillating Flow and Heat Transfer of Single Phase in Capillary Tubes -- Oscillating Motion and Heat Transfer Mechanics of Oscillating Heat Pipes -- Factors Affecting Oscillating Motion and Heat Transfer in an OHP -- Visualization of Oscillating Heat Pipes -- Nanofluid Oscillating Heat Pipe -- Experiment and Manufacturing Considerations -- Conventional Heat Pipes.
Sommario/riassunto	This book presents the fundamental fluid flow and heat transfer principles occurring in oscillating heat pipes and also provides updated developments and recent innovations in research and applications of heat pipes. Starting with fundamental presentation of heat pipes, the

focus is on oscillating motions and its heat transfer enhancement in a two-phase heat transfer system. The book covers thermodynamic analysis, interfacial phenomenon, thin film evaporation, theoretical models of oscillating motion and heat transfer of single phase and two-phase flows, primary factors affecting oscillating motions and heat transfer, neutron imaging study of oscillating motions in an oscillating heat pipes, and nanofluid's effect on the heat transfer performance in oscillating heat pipes. The importance of thermally-excited oscillating motion combined with phase change heat transfer to a wide variety of applications is emphasized. This book is an essential resource and learning tool for senior undergraduate, graduate students, practicing engineers, researchers, and scientists working in the area of heat pipes. This book also . Includes detailed descriptions on how an oscillating heat pipe is fabricated, tested, and utilized . Covers fundamentals of oscillating flow and heat transfer in an oscillating heat pipe . Provides general presentation of conventional heat pipes .
