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ISBN	3-031-20924-9
Edizione	[1st ed. 2023.]
Descrizione fisica	1 online resource (501 pages)
Disciplina	620.106
Soggetti	Fluid mechanics Fluid mechanics - Data processing
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Introduction to Two Phase Flow - Flow Patterns and Maps -- Two Phase Flow- Pressure Drop and Flow Friction -- Thermodynamics of Phase Change -- Nucleation and Bubble Dynamics -- Cavitation -- Types of Boiling-The Pool Boiling Curve -- Heat Transfer Mechanisms and Correlations in Nucleate Pool Boiling -- Pool Boiling Crisis and Film Boiling -- Flow Boiling Heat Transfer -- Flow Boiling Crisis and Post Dryout Heat Transfer -- Boiling of Mixtures -- Boiling in Mini and Micro Channel -- Condensation: Nusselt Theory and External Condensation -- In-Tube and Dropwise Condensation -- Computational Techniques for Boiling and Condensation -- Equipment for boiling, evaporation and condensation.
Sommario/riassunto	This comprehensive textbook highlights features of two phase flows and introduces the readers to flow patterns and flow maps. It covers a wide range of fundamental and complex subjects focusing on phase change processes like boiling, condensation or cavitation, and boiling phenomenon starting from pool boiling curves to heat transfer under nucleate boiling, film, and flow boiling. It also discusses themes such as numerical techniques for solving boiling and condensation as well as equipment used in industry for evaporation, boiling, and condensation. It includes pedagogical aspects such as end-of-chapter problems and worked examples to augment learning and self-testing. This book is a valuable addition for students, researchers, and practicing engineers.

