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Descrizione fisica	1 online resource (512 p.)
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Soggetti	Heat engineering - Computer simulation
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Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Preface -- Plant simulation modules and functional groups -- Numerical methods -- Thermodynamic and transport properties of materials -- Conservation equations for flow systems -- Static components -- Turbomachines -- Heat transfer -- Heat exchangers -- Temperatures through component walls -- Furnaces, fuels and heat release -- Boiler circuits and steam generation -- Two-phase effects in steam flows -- Steam turbines -- Steam condensation -- Deaerators and feedwater heaters -- Simulation of complex networks.
Sommario/riassunto	Computer Simulation of Thermal Plant Operations provides an in-depth discussion of thermal plant simulation: dynamic simulation of plants which produce, exchange and otherwise utilize heat as their working medium. The book adopts a fundamental approach to the subject, providing an overview of simulation concepts, descriptions of suitable computer environments, reviews of relevant computation methods and fundamental thermodynamics, detailed examinations of basic conservation equations, and in-depth developments of specific simulation models. Illustrated with photographs of equipment and numerical examples based on real plant operations, Computer Simulation of Thermal Plant Operations is an essential volume for all chemical, mechanical and control engineers involved with operations, control and optimization, and operator training.

