1. Record Nr. UNINA9910253976803321

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Titolo	Compact Heat Exchangers [[electronic resource]] : Selection, Application, Design and Evaluation / / by Bahman Zohuri
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2017
ISBN	3-319-29835-6
Edizione	[1st ed. 2017.]
Descrizione fisica	1 online resource (XXII, 559 p. 81 illus., 66 illus. in color.)
Disciplina	621.042
Soggetti	Energy systems Thermodynamics Heat engineering Heat transfer Mass transfer Nuclear energy Energy Systems Engineering Thermodynamics, Heat and Mass Transfer Nuclear Energy
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Definitions And Basic Principles Of Thermodynamics -- Heat Exchangers Types And Classifications -- Compact Heat Exchangers Design For The Process Industry -- Thermodynamics Cycles -- Compact Heat Exchangers Application In NGNP -- Compact Heat Exchangers Application In New Generation Of CSP -- Compact Heat Exchangers Driven Hydrogen Production Plants -- Appendices.
Sommario/riassunto	This book: · Discusses the types of compact heat exchanger surfaces, suggesting novel designs that can be considered for optimal cost effectiveness and maximum energy production · Undertakes the thermal analysis of these compact heat exchangers throughout the life cycle, from the design perspective through operational and safety assurance stages · Focuses on alternative energy applications including Concentrated Solar Power and Nuclear Plants This book describes the

fundamentals and applications of compact heat exchangers in energy generation. The text focuses on their efficiency impacts on power systems, particularly emphasizing alternative energy sources such as Concentrated Solar Power and nuclear plants. The various types of compact heat exchanger surfaces and designs are given thorough consideration before the author turns his attention to describing how these compact heat exchangers can be applied to innovative plant designs, and how to conduct operational and safety analyses to optimize thermal efficiency. The book is written at an undergraduate level, but will be useful to practicing engineers and scientists as well. .