Record Nr. UNINA9910253984203321 Autore Dincer Ibrahim Titolo Integrated Absorption Refrigeration Systems: Comparative Energy and Exergy Analyses / / by Ibrahim Dincer, Tahir Abdul Hussain Ratlamwala Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2016 **ISBN** 3-319-33658-4 Edizione [1st ed. 2016.] Descrizione fisica 1 online resource (XVII, 270 p. 108 illus., 34 illus. in color.) Collana Green Energy and Technology, , 1865-3529 Disciplina 621.56 Soggetti Thermodynamics Renewable energy resources Heat engineering Heat - Transmission Mass transfer Fluid mechanics Renewable and Green Energy Engineering Thermodynamics, Heat and Mass Transfer **Engineering Fluid Dynamics** Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Fundamentals of Absorption Refrigeration Systems -- Thermodynamic Analysis -- Single Effect Absorption Refrigeration System -- Double Effect Absorption Refrigeration System -- Triple Effect Absorption Refrigeration System -- Quadruple Effect Absorption Refrigeration System -- Integrated Absorption Refrigeration Systems: Case Studies -- Developments in Absorption Refrigeration Systems. This book provides a detailed analysis of absorption refrigeration Sommario/riassunto systems, covering single effect to multi-effect systems and their applications. Both the first and second laws of thermodynamics are discussed in relation to refrigeration systems to show how system performance differs from one law to another. Comparative energy and exergy analyses and assessments of single effect, double effect, triple effect and quadruple effect absorption refrigeration system are

performed to illustrate the impact of an increase in the number of

effects on system performance. In particular, the second law (exergy) formulation for absorption refrigeration systems, rarely discussed by other works, is covered in detail. Integrated Absorption Refrigeration Systems will help researchers, students and instructors in the formulation of energy and exergy efficiency equations for absorption refrigeration systems.