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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Adsorption Working Pairs -- Mechanism and Thermodynamic Properties of Physical Adsorption -- Mechanism and Thermodynamic Properties of Chemical Adsorption -- Adsorption mechanism and thermodynamic characteristics of composite adsorbents -- Adsorption Refrigeration Cycles -- Technology of Adsorption Bed and Adsorption Refrigeration System -- Design and Performance of the Adsorption Refrigeration System -- Adsorption Refrigeration Driven by Solar Energy and Waste Heat.
Sommario/riassunto	"Gives readers a detailed understanding of adsorption refrigeration technology, with a focus on practical applications and environmental concerns. Systematically covering the technology of adsorption refrigeration, this book provides readers with a technical understanding of the topic as well as detailed information on the state-of-the-art from leading researchers in the field. Introducing readers to background on the development of adsorption refrigeration, the authors also cover the development of adsorbents, various thermodynamic theories, the design of adsorption systems and adsorption refrigeration cycles. The book guides readers through the

research process, covering key aspects such as: the principle of adsorption refrigeration; choosing adsorbents according to different characteristics; thermodynamic equations; methods for the design of heat exchangers for adsorbers; and the advanced adsorption cycles needed. It is also valuable as a reference for professionals working in these areas. Covers state-of-the art of adsorption research and technologies for relevant applications, working from adsorption working pairs through to the application of adsorption refrigeration technology for low grade heat recovery. Assesses sustainable alternatives to traditional refrigeration methods, such as the application of adsorption refrigeration systems for solar energy and waste heat Includes a key chapter on the design of adsorption refrigeration systems as a tutorial for readers new to the topic; the calculation models for different components and working processes are also included. Takes real-world examples giving an insight into existing products and installations and enabling readers to apply the knowledge to their own work. Target audience: Academics researching low grade energy utilization and refrigeration; Graduate students of refrigeration and low grade energy utilization; Experienced engineers wanting to renew knowledge of adsorption technology; Engineers working at companies developing adsorption chillers; Graduate students working on thermally driven systems; Advanced undergraduates for the Refrigeration Principle as a part of thermal driven refrigeration technology"--