Record Nr. UNINA9910484332603321 Autore Ng Xian Wen Titolo Concise guide to heat exchanger network design: a problem-based test prep for students / / Xian Wen Ng Cham, Switzerland: ,: Springer International Publishing, , [2020] Pubbl/distr/stampa ©2020 **ISBN** 3-030-53498-7 Edizione [1st edition 2021.] Descrizione fisica 1 online resource (XI, 148 p. 150 illus., 123 illus. in color.) Disciplina 660 Soggetti Chemical engineering Heat - Transmission Fluid mechanics Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Fundamentals of Heat Integration -- Energy Cascade and Pinch Analysis -- Euler's Theorem and Grand Composite Curves -- Complex HEN design problems. This book serves as an extensive practice manual for the understanding Sommario/riassunto and practice of heat exchanger design fundamentals and principles. It also provides a useful resource to upper undergraduate students, who are required to complete final year design projects as part of graduation. The book complements other key topics in science and engineering courses well, such as the branch of thermodynamics which relates closely to the core design principles for heat exchanger networks (FThis book serves as an extensive practice manual for the understanding and practice of heat exchanger design fundamentals and principles. It also provides a useful resource to upper undergraduate students, who are required to complete final year design projects as part of graduation. The book complements other key topics in science and engineering courses well, such as the branch of thermodynamics which relates closely to the core design principles for heat exchanger networks (First and Second Laws of Thermodynamics).

> Provides balanced content with numerical and open-ended problems; Tailored to the needs of students and teachers; Concise yet rigorous

treatment of concepts; Incorporates use of visuals to aid learning; Reinforces engineering concepts in real-life applications.