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Nota di contenuto	Frontmatter -- Preface -- Content -- Acronyms, abbreviations and symbols -- 1. Process Integration and Intensification: an introduction -- 2. Setting energy targets and Heat Integration -- 3. Synthesis of Heat Exchanger Networks -- 4. Total Site Integration -- 5. Introduction to Water Pinch Analysis -- 6. Setting the maximum water recovery targets -- 7. Water network design/retrofit -- 8. Design of Cost-Effective Minimum Water Network (CEMWN) -- 9. Conclusions and sources of further information -- Index
Sommario/riassunto	"The authors have provided all the elements required for complete understanding of the basic concepts in heat recovery and water

minimization in chemical and related processes, and followed these with carefully selected and developed problems and solutions in order to ensure that the concepts delivered can be applied." Simon Perry, The University of Manchester. This graduate textbook covers fundamentals of the key areas of Process Integration and Intensification for intra-process heat recovery (Heat Integration), inter-process heat recovery and cogeneration (Total Site) as well as water conservation. Step by step working sessions are illustrated for deeper understanding of the taught materials.The textbook also provides a wealth of pointers as well as further information for readers to acquire more extensive materials on the diverse industrial applications and the latest development trends in Process Integration and Intensification. It is addressed to graduate students as well as professionals to help the effectively application of Process Integration and Intensification in plant design and operation.