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Autore	Reay David G
Titolo	Process Intensification [[electronic resource]] : engineering for efficiency, sustainability and flexibility // David Reay, Colin Ramshaw, Adam Harvey
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Collana	Isotopes in organic chemistry
Altri autori (Persone)	RamshawC (Colin) HarveyAdam
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Soggetti	Environmental chemistry - Industrial applications Chemical processes Sustainable engineering Electronic books.
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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	1. A Brief History of Process Intensification; 2. Process Intensification - An Overview; 3. The Mechanisms Involved in Process Intensification; 4. Compact and Micro-heat Exchangers; 5. Reactors; 6. Intensification of Separation Processes; 7. Intensified Mixing; 8. Application Areas - Petrochemicals and Fine Chemicals; 9. Application Areas - Offshore Processing; 10. Application Areas - Miscellaneous Process Industries; 11. Application Areas - the Built Environment, Electronics, and the Home; 12. Specifying, Manufacturing and Operating PI Plant; Appendix 1 - Abbreviations Used; Appendix 2 - Nomenclature; Appendix 3 - Equipment Suppliers; Appendix 4 - R&D Organisations, Consultants and Miscellaneous Groups Active in PI; Appendix 5 - A Selection of Other Useful Contact Points, Including Networks and Websites; Index.
Sommario/riassunto	Process Intensification: Engineering for Efficiency, Sustainability and Flexibility is the first book to provide a practical working guide to understanding process intensification (PI) and developing successful PI solutions and applications in chemical process, civil, environmental, energy, pharmaceutical, biological, and biochemical systems. Process intensification is a chemical and process design approach that leads to

substantially smaller, cleaner, safer, and more energy efficient process technology. It improves process flexibility, product quality, speed to market and inherent safety, with a reduced environmental footprint. This book represents a valuable resource for engineers working with leading-edge process technologies, and those involved research and development of chemical, process, environmental, pharmaceutical, and bioscience systems.
