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Nota di bibliografia	Includes bibliographical references at the end of each chapters.
Nota di contenuto	In Silico Search for Alternative Green Solvents -- Solvent Free Extraction: Myth or Reality ? -- Supercritical fluid extraction: a global perspective of the fundamental concepts of this eco-friendly extraction technique -- Subcritical Water as a Green Solvent for Plant Extraction -- Liquefied dimethyl ether: an energy-saving, green extraction solvent -- Ethyl lactate : main properties, production processes and applications -- Ionic liquids as alternative solvents for extraction of natural products -- Enzymatic Aqueous extraction (E.A.E) -- Terpenes as Green Solvents for Natural Products Extraction -- Emulsion extraction of bio-products: influence of bio-diluents on extraction of gallic acid -- Gluconic acid as a new green solvent for recovery of polysaccharides by clean technologies -- 2-Methyltetrahydrofuran : main properties, production processes, and application in extraction of natural products -- Innovative Technologies Used at Pilot Plant and Industrial Scales in Water-extraction Processes.

Sommario/riassunto

This book presents a complete picture of the current state-of-the-art in alternative and green solvents used for laboratory and industrial natural product extraction in terms of the latest innovations, original methods and safe products. It provides the necessary theoretical background and details on extraction, techniques, mechanisms, protocols, industrial applications, safety precautions and environmental impacts. This book is aimed at professionals from industry, academicians engaged in extraction engineering or natural product chemistry research, and graduate level students. The individual chapters complement one another, were written by respected international researchers and recognized professionals from the industry, and address the latest efforts in the field. It is also the first sourcebook to focus on the rapid developments in this field. Farid Chemat is a Professor of Chemistry at the University of Avignon, France. Maryline Abert Vian is an Assistant Professor of Chemistry at the University of Avignon, France.