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Titolo	Plant Based “Green Chemistry 2.0” : Moving from Evolutionary to Revolutionary / / edited by Ying Li, Farid Chemat
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Descrizione fisica	1 online resource (XII, 375 p. 172 illus., 53 illus. in color.)
Collana	Green Chemistry and Sustainable Technology, , 2196-6982
Disciplina	660
Soggetti	Green chemistry Renewable energy resources Chemical engineering Food—Biotechnology Organic chemistry Medicinal chemistry Green Chemistry Renewable and Green Energy Industrial Chemistry/Chemical Engineering Food Science Organic Chemistry Medicinal Chemistry
Lingua di pubblicazione	Inglese
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Nota di contenuto	PART GREEN or SUSTAINABLITY CONCEPT EVOLUTION -- Plant based green chemistry: moving towards petroleum free chemistry -- Biorefinery concept as a key for sustainable future of plant based green chemistry -- From Petroleum to Bio-based solvents: from academia to industry -- PART DEVELOPED STRATEGIES and SUCCESS STORIES WORLDWIDE -- Plant based chemicals extraction and isolation – how to get from biological material to pure compounds -- Phytoextraction to promote sustainable development -- Bioactives from agriculture and food processing wastes: Green approaches to valuable chemicals -- Natural terpenes as building blocks for green chemistry -- Polyphenols as natural antioxidants: sources, extraction and applications in food,

cosmetics and drugs -- Proteins from pulses and oleaginous meals as industrial sources for food and feed -- Carob: a unique source for sustainable materials and products -- PART REVOLUTIONARY APPLICATIONS in VARIOUS FIELDS -- Green extraction from Chinese medicinal plants as bio-source of drugs -- Vegetable oils: sources, extraction, valorization and sustainability -- Sustainable Biomaterials: Current Trends, Challenges and Applications -- Sustainable Biofuels: emergence, developments, and prospects -- Sustainability aspects of biobased products.

Sommario/riassunto

This book provides practical information on obtaining and using a wide variety of plant based reagents for different sectors, addressing the needs and challenges in a single resource. The chapters complement each other seamlessly and present contributions from reputed international researchers and renowned professionals from industry, covering the latest efforts in the field. The book serves as the starting point for future collaborations in the new area “Plant Based Green Chemistry” between research, industry, and education, covering large ecologic and economic applications: perfume, cosmetic, pharmaceutical, food ingredients, nutraceuticals, biofuels, or fine chemicals industries. This book is aimed at professionals from industries, academicians engaged in plant based green chemistry, researchers and graduate level students, but will also be useful to food technologists and students and researchers involved in natural products chemistry.