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Nota di contenuto	Industrial Scale Natural Products Extraction; Contents; Preface; List of Contributors; 1 Extraction of Natural Products from Plants - An Introduction; 1.1 Introduction; 1.2 Cultivation; 1.3 Extraction; 1.3.1 Solvents; 1.4 Extraction Techniques; 1.5 Purification; 1.5.1 Chromatography; 1.5.1.1 Adsorption Chromatography; 1.5.1.2 Partition Chromatography; 1.5.1.3 Ion Exchange Chromatography; 1.5.1.4 Gel Chromatography; 1.5.1.5 (Bio-) Affinity Chromatography; 1.5.2 Continuous Techniques; 1.5.2.1 True Moving Bed (TMB) Chromatography; 1.5.2.2 Simulated Moving Bed (SMB) Chromatography 1.5.2.3 Annular Chromatography1.5.2.4 Carrousel Adsorbers; References; 2 Solubility of Complex Natural and Pharmaceutical Substances; 2.1 Introduction; 2.2 Solubility Calculations; 2.2.1

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 2.4.1 Solubility of Estradiol, Estrone, and Sitosterol in Different Solvents
 2.4.2 Solubility of Beta-carotene in Supercritical Carbon Dioxide; 2.4.3 Solubility of Paracetamol in Pure Solvents and Solvent Mixtures; 2.4.4 Solubility of dl-Methionine as Function of pH; 2.4.5 Solubility of Mandelic Acid Enantiomers and Racemic Mandelic Acid in Water; 2.5 Summary; Symbols; Latin Symbols; Greek Symbols and Special Characters; Superscripts; Subscripts; Appendix; Hard-chain Reference Contribution; Dispersion Contribution; Association Contribution; References; 3 Alternative Solvents in Plant Extraction
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Sommario/riassunto

Covering the latest technologies in process engineering, this handbook and ready reference features high pressure processing, alternative solvents and processes, extraction technologies and biotransformations -- describing greener, more efficient and sustainable techniques. The result is an expert account of engineering details from lab-scale experiments to large-scale industrial design. The major focus is on the engineering aspects of extraction with organic and supercritical solvents, ionic liquids or surfactant solutions, and is supplemented by aspects of both up- and downstream process
