1. Record Nr. UNINA9910131029803321

Titolo	Industrial scale natural products extraction [[electronic resource] /] / edited by Hans-Jorg Bart and Stephan Pilz
Pubbl/distr/stampa	Weinheim, Germany, : Wiley-VCH, 2011
ISBN	3-527-63513-0 1-283-30249-7 9786613302496 3-527-63514-9 3-527-63512-2
Descrizione fisica	1 online resource (316 p.)
Altri autori (Persone)	BartHans-Jorg <1954-> PilzStephan
Disciplina	622.2
Soggetti	Extraction (Chemistry) Natural products Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
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 Solubility of a Pure Solute in Solvents and Solvent Mixtures; 2.2.2 pH-Dependence of Solubility; 2.2.3 Solubility of Racemic Compounds; 2.3 Thermodynamic Modeling; 2.3.1 PC-SAFT Equation of State; 2.3.1.1 Hard-Chain Contribution Ahc; 2.3.1.2 Dispersion Contribution Adisp;

2.3.1.3 Association Contribution Assoc; 2.3.2 Estimation of PC-SAFT Parameters; 2.4 Examples
2.4.1 Solubility of Estriol, Estrone, and Sitosterol in Different Solvents2.4.2 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
3.1 Introduction3.2 Ionic Liquids in the Extraction of Natural Compounds from Plant and Fungi; 3.2.1 Characteristics of Ionic Liquids; 3.2.1.1 Physicochemical Properties; 3.2.1.2 Environmental and Safety Aspects; 3.2.2 Application of Ionic Liquids in Plant Extraction; 3.2.2.1 Application of ILs in Extraction; 3.2.2.2 Removal of Target Substance from Extract and Separation of Solvent from Spent Biomass; 3.2.2.3 Example 1: Extraction of Artemisinin; 3.2.2.4 Example 2: Extraction of Lignin; 3.3 Surfactants and Aqueous Two-Phase Systems in Plant Extraction
3.3.1 Characteristics of Surfactant-Water Mixtures3.3.2 Behavior of Nonionic Surfactants in Aqueous Solution; 3.3.3 Micellar Extraction and Cloud Point Extraction; 3.3.4 Reversed Micellar Extraction; 3.3.5 Equilibrium Partition of Target Substances in Aqueous Surfactant Solutions; 3.3.6 Examples for the Use of Surfactants in Plant Extraction; 3.3.6.1 Plant Extraction Using Micellar and Cloud Point Extraction; 3.3.6.2 Plant Extraction Using Reverse Micelles; 3.4 Summary; References; 4 High Pressure Processing; 4.1 Introduction; 4.2 Supercritical Fluids; 4.2.1 General; 4.2.2 Physical Properties
4.2.3 Solvent Power and Solubility

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

2. Record Nr. UNINA9910553068103321

Autore	Halsey Mike
Titolo	The green IT guide : ten steps toward sustainable and carbon-neutral IT infrastructure / / Mike Halsey
Pubbl/distr/stampa	Berkeley, California : , : Apress L. P., , [2022] ©2022
ISBN	1-4842-8057-1
Edizione	[First edition.]
Descrizione fisica	1 online resource (199 pages)
Disciplina	004.0286
Soggetti	Green technology Information technology - Environmental aspects Information technology - Energy conservation Human-computer interaction
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di contenuto	Chapter 1: Understanding your Place on Planet Earth Chapter 2: Knowing the Impact your IT Systems Have Chapter 3: Making Smarter Usage of IT Equipment Chapter 4: Appraising Cloud Services and Climate Change Chapter 5: Effectively Recycling and Repurposing IT Equipment Chapter 6: Managing Power for Your Existing IT systems Chapter 7: Establishing Policies and Procedures for IT Use Chapter 8: Understanding the Interconnected World of Business and IT Chapter 9: Placing Your Environmental Policies in the Wider World Chapter 10: Assessing Future Technologies
Sommario/riassunto	Become part of the solution to climate change and learn how you can reduce the carbon footprint and increase the sustainability of your IT systems. Learn how to ensure new equipment is as power efficient, sustainable, and repairable as possible. Uncover the sustainability policies of your cloud and IT service providers so you can make thoughtful, cost-sensitive, and environmentally sound decisions when purchasing cloud-based SaaS and other services. Also learn to reduce e-waste in a way that inspires your employees, your stakeholders, and your customers.