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GREEN EXTRACTION IN SEPARATION TECHNOLOGY

Ali Haghghi Asl
Maryam Khajenoori



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CONTENTS

Preface	ix
Authors	xi
1	New Technologies for Extracting Natural Compounds from Plants
1.1	Essential Oils
1.2	Definition of Extraction
1.3	Definition of Green Extraction
1.4	Distillation with Water or Steam
1.5	New Technologies for Extracting Natural Compounds
1.5.1	Microwave-Assisted Solvent Extraction (MASE)
1.5.1.1	Microwave-Assisted Extraction Systems
1.5.1.2	Advantages and Disadvantages of Microwave Extraction Methods
1.5.1.3	Researches by Microwave Extraction Method
1.5.2	Ultrasound-Assisted Extraction (UAE)
1.5.2.1	Ultrasonic Wave Extraction Systems
1.5.2.2	Advantages and Disadvantages of Ultrasonic Extraction Method
1.5.2.3	Researches by Ultrasonic Extraction Method

VI CONTENTS

1.5.3	Instant Controlled Pressure Drop (DIC) Method	17
1.5.3.1	Equipment of DIC Method	18
1.5.3.2	Advantages and Disadvantages of DIC Method	20
1.5.3.3	Research Conducted by DIC Method	20
1.5.4	Supercritical Fluid Extraction	21
1.5.4.1	Supercritical Fluid Extraction Equipment	22
1.5.4.2	Advantages and Disadvantages of SFE	22
1.5.4.3	Research Conducted by SFE Method	24
1.5.5	Subcritical Water Extraction (SWE)	25
1.5.5.1	Subcritical Water Extraction Equipment	25
1.5.5.2	Advantages and Disadvantages of SWE	26
1.5.5.3	Research Done by SWE Method	27
1.6	Conclusion	32
	References	32
2	Review of Subcritical Water Extraction (SWE)	37
2.1	Introduction	37
2.2	Subcritical Water Extraction (SWE)	37
2.3	Comparison of SWE and Other Methods	41
2.4	Applications of SWE	44
2.4.1	Extraction of Biologically Active and Nutritional Compounds from Plant and Food Materials	45
2.4.1.1	Antioxidants	45
2.4.1.2	Phenolic Compounds	46
2.4.1.3	Essential Oils	46
2.4.1.4	Other Plant and Food Ingredients	47
2.4.2	Eliminate Organic Contaminants from Food	47
2.5	Economic Study of Subcritical Water Extraction	47
	References	48
3	Solubility of Subcritical Water	51
3.1	Introduction	51

3.2	Effective Parameters on Solubility	52
3.2.1	Solvent Type	52
3.2.2	Temperature	53
3.2.3	Flow Rate	53
3.2.4	Pressure	53
3.2.5	Dynamic or Static Mode	53
3.2.6	Concentration of Additives	54
3.3	Solubility Measurement Methods	54
3.3.1	A Review of Laboratory Work Performed	54
3.3.1.1	Static Method	54
3.3.1.2	Dynamic Method	62
3.4	An Overview of the Modeling Performed	66
3.4.1	Experimental and Semi-Experimental Models	67
3.4.2	Dielectric Constant Model	69
3.4.3	Equations of State (EOS)	70
3.4.4	Regular Solution Theory (RST)	71
3.4.5	UNIFAC-Based Models	74
	References	78
4	Modeling of Subcritical Water Extraction	85
4.1	Introduction	85
4.2	Investigation of Existing Models in SWE	87
4.2.1	Thermodynamic Model	87
4.2.2	Kinetic Absorption Model	88
4.2.2.1	One-Site Kinetic Desorption Model	88
4.2.2.2	Two-Site Kinetic Desorption Model	89
4.2.3	Thermodynamic Separation with External Mass Transfer Resistance Model	90
4.2.4	Model Based on Differential Mass Balance Equations	93
4.3	Description of the Selected Mathematical Model	97
4.4	Simulation Method	102
4.5	Solution of the Partial Differential Equation	102
4.5.1	Essential Oil Concentration Curve in Bulk Fluid	102
4.5.2	Essential Oil Concentration Curve in Solid	105
4.6	Estimation of Model Parameters and Physical Properties	106

VIII CONTENTS

4.6.1	Estimation of the Equilibrium	
	Dissociation Coefficient of the Analyte	107
4.6.2	Estimation of Mass Transfer Coefficient	
	of Bulk Phase	107
4.6.3	Estimation of Solute Diffusion	
	Coefficient in Fluid	108
4.6.4	Physical Properties	109
References		112
Subject Index		115

PREFACE

Research over the past few years has shown that the subcritical water extraction can be used in the case of natural essential oils and food-stuffs, given the growing interest in removing organic solvents from nature. This method is an environment-friendly, inexpensive and non-toxic method of extraction. The equipment required is relatively simple and does not need high pressures like the supercritical fluid extraction method. However, research in this area has been done on a laboratory scale, and still new research needs to be performed. Because of its many benefits over other separation methods, it will be more likely to be produced in the near future for the production of natural essential oils and nutrients.

This book consists of four chapters. In [Chapter 1](#), new strategies for extracting natural compounds from plants are examined. In Chapter 2, research on SWE in the last 15 years is studied. In Chapter 3, a review of the work done in relation to the solubility of different compounds in subcritical water as well as the theoretical content in this field is described in detail. [Chapter 4](#) examines the models used to SWE. Also in this chapter, the principles used in the development of the new model for this process are presented.

There is no specialized book on extracting water with subcritical water as a solvent, and also, we have done a lot of experimental work in this field to make this collection available to researchers and enthusiasts. It is hoped that this collection will be of interest to experts, enthusiasts and scholars, and with their guidance and criticism, will help us to provide the most desirable presentation in future editions.



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