



Table of contents

Preliminary remarks	vii
List of abbreviations	vii
List of publications	x
Conferences	xi
Declaration of contribution as co-author	xii
Chapter 1	1
General introduction	1
1 History of food fraud.....	1
2 Adulterated food today.....	2
3 Food authentication	3
4 Modern techniques detecting food fraud.....	4
5 Berry fruits	10
6 Aims of the thesis	21
Chapter 2	36
Influence of accelerated solvent extraction and ultrasound-assisted extraction on the anthocyanin profile of different <i>Vaccinium</i> species in context of statistical models for authentication.....	36
1 Introduction	37
2 Materials and methods	39
3 Results and discussion.....	42
4 Conclusion.....	51
Chapter 3	59
Influence of common and excessive enzymatic treatment on juice yield and anthocyanin contents and profile during bilberry (<i>Vaccinium myrtillus</i> L.) juice production.....	59



1	Introduction	60
2	Materials and methods	62
3	Results and discussion.....	65
4	Conclusion.....	75
Chapter 4.....		80
Profiling of iridoid glycosides in <i>Vaccinium</i> species by UHPLC-MS.....		80
1	Introduction	81
2	Materials and methods	84
3	Results and discussion.....	87
4	Conclusion.....	95
Chapter 5.....		99
Concluding remarks		99
1	Impact on anthocyanin profiles caused by extraction methods.....	99
2	Impact of enzymatic treatment during juice processing.....	101
3	Iridoid profile of <i>Vaccinium</i> L. species	105
Summary.....		108
Zusammenfassung.....		111
Acknowledgement.....		114