

Course title:	Modern extraction methods
Institute/Division:	FACULTY OF CHEMICAL ENGINEERING AND TECHNOLOGY
Number of contact hours:	15 hours (15 h lectures)
Course duration:	1 semester (6 th semester of regular I cycle studies - spring)
ETCS credits:	1
Course description:	The course will cover basic information about modern techniques of extraction for obtaining biological active substances as well as preparing analytical samples for qualitative and quantitative analysis. There will be characteristic of the extraction methods like: ultrasound-assisted extraction, microwave-assisted extraction, supercritical fluid extraction, solid-phase extraction and these methods will be compared to classical solid-liquid maceration.
Education effects :	
	- <u>knowledge</u> : knowledge of factors influencing extraction process effectiveness, characteristics of modern extraction methods and technologies
	- <u>skills</u> : the ability to identify the advantages of modern extraction technologies compared to conventional ones, the ability to plan extraction process conditions
	- <u>social</u> : drawing conclusions, the ability to associate facts and look for cause and effect relationships
Literature:	[1] H. J. Bart, Reactive extraction, Springer-Verlag, Berlin, 2001
	[2] N.J.K. Simpson, M. Dekker, Solid-phase extraction: Principles, techniques and application, Basel, New York 2000
Assessment method:	Final test or presentations (whole group choses the same option)
Prerequisites:	Basic knowledge in organic and inorganic chemistry and technology.
Primary target group:	Students from all specialties
Lecturer:	Magdalena Malinowska
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Remarks:	The course is selectable