

SOME ASPECTS OF ULTRASONICALLY ASSISTED EXTRACTION (UAE) OF BIOACTIVE PRINCIPLES FROM HERBS

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Lecture abstract:

The lecture will start with a brief introduction into the extraction technologies followed by a short history of plant extracts.

A historical introduction in sonochemistry and ultrasound assisted extraction aiming to provide some insights, not very often available, on this branch of chemistry science and its connection with phytopharmaceutical technology, part of biorefinery technologies.

A brief presentation of extraction procedures that will be followed by pointing where ultrasound could help extraction. Examples of ultrasonically assisted extraction with discussion on the main extraction parameters will be presented. The way of action of ultrasonic energy in extraction – ultrasonic extraction mechanism will be presented and discussed.

Several possibilities to setup laboratory and large scale ultrasonic extraction will be reviewed.

The conclusions of the lecture point that:

- Ultrasonically assisted extraction definitively is a powerful tool for extraction technology.
- Ultrasonically assisted extraction is a versatile technique that could be performed on small and on large scale, as well.
- This technique is going now towards practical commercial.