

A RAPID METHOD FOR THE EXTRACTION OF CANNABIONOIDS FROM CANNABIS SATIVA USING MICROWAVE HEATING TECHNIQUE

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Summary: Cannabis sativa and its products (marihuana, hashish and hashish oil) is one of the most used illicit drugs in the world. It is also an agricultural crop so it is important to distinguish between industrial-type and drug-type cannabis by forensic examination of suspected material. Extraction technique is one of the first steps in the laboratory plant material isolation, and therefore the development of new, more efficient method of extraction is desirable. The traditional techniques of extraction of biological active compounds from plant material, such as cannabinoids from cannabis, are based on solvent extraction. These methods are often inefficient in terms of extraction time, amount of solvent, energy consumption and extraction yield. Therefore the importance of continuous development of new, more efficient extraction methods is understandable. In this paper, the short description of cannabis plant and chemical constituents of forensic significance were shown for better understanding. Paper also describes the mechanism of microwave heating and its use in the extraction method through short theoretical background of microwave heating. In addition, examples of application of microwaves for the isolation of some organic compounds from plant material were presented. It is also shown that the microwave extraction can be used in absence of solvent in solvent free microwave technique. The possibility of microwave extraction application in forensic examination of Cannabis sativa is presented by highlighting its simplicity and efficiency

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