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# Examination of cannabinoid content of different extracts prepared from *Cannabis sativa* L.

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Cannabis has a controversial state nowadays, since in some countries it is used as a medicinal plant against pain, while in other countries, it is frequently consumed for abuse, and therefore prohibited. *Cannabis sativa* L. has different varieties with different cannabinoid content. The cultivation of those species, which has low THC content (<0.2%), is allowed in Hungary [1]. Our aim was to examine the cannabinoid content of different extracts, which can be prepared at home by laypersons from a KcZuzana variety of cannabis (nominal THC content <0.12%) [2].

An HPLC/DAD method was developed and used for the qualitative and quantitative determination of some major cannabinoids [Δ9-tetrahydrocannabinol (THC), THC acid (THCA), cannabidiol (CBD), and cannabinol (CBN)] in cannabis plant material and its different extracts with both direct analysis and after liquid-liquid extraction (internal standard: mefenamic acid). For our purpose, we modified the method recommended by UNODC [3].

We developed an HPLC/DAD method (column: C18 Kinetex® 150x2.1 mm; 2.6 µm + Phenomenex SecurityGuard™ cartridge for C18 HPLC; gradient elution with mixtures of 0.05% HCOOH/$H_2O$ and 0.05% HCOOH/ACN; flow rate: 0.25 ml/min; detection: 220 and 240 nm) for detection of the main cannabinoids in different water/ethanol extracts.

Our future aims are to examine the cannabinoid content of further homemade extracts (prepared e.g. with olive oil).

## References

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