

Abstract:

Title: HPLC determination of low concentrations of Δ^9 -THC

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Theoretical part of this work focuses on chromatographic determination of Δ^9 -THC, especially the toxicology-forensic problematics of determination of low concentrations of Δ^9 -THC present in fibre hemp and hemp food. Objective of experimental part is to validate the HPLC-FLD method for determination of low concentrations of Δ^9 -THC. The validation involves validation tests that are performed for 3 various settings of fluorescent detector sensitivity. Obtained validation data enable to select the most suitable sensitivity under which HPLC determinations of Δ^9 -THC in industrial hemp, hemp fibre, hemp cloth and hemp seed is performed. Results of these determinations prove that the above mentioned samples originate from industrial hemp as Δ^9 -THC content is in all cases significantly lower than the applicable limits.