Major: Forensic Chemistry Poster

Faculty Mentor(s): Liguo Song

A liquid chromatography ultraviolet detection (LC-UV) method was developed for the quantification of Δ9-THC among 19 cannabinoids in lucky leaf hemp cigarettes. The quantification was achieved using external standard calibration between 0.02 and 25 µg/mL. The limits of quantitation (LOQ) were determined to be 0.04% Δ9-THC in hemp cigarettes. To recover Δ9-THC, a sample was combined with methanol to prepare a 25 mg/mL mixture. After ultrasonication, centrifugation and filtration, the extract was serially diluted to 50 µg/mL and analyzed by LC-UV. The measurement had a relative standard deviation (RSD) of 4.5% in triplicate. The method is not interfered by other cannabinoids present in hemp cigarettes.