

[Rapid Screening of Cannabinoids in Edibles Using Thermal Desorption-GC–MS](#)

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Cannabis Science and Technology 1 (4), 50-55 (2018)

Abstract:

Most of the traditional methodologies for the determination of cannabinoids are based on solvent extraction, filtration, and concentration. These techniques are cumbersome, time-consuming, and suffer from analyst-to-analyst variability while producing data of limited value. Many laboratories routinely “screen” each sample to quickly determine the potential for matrix interference and instrument contamination while providing an estimate of the target compound’s concentration. A good “screening” method is simple (that is, minimal or no sample preparation), fast (analysis in less than 5 min), and semiquantitative. This article describes how thermal desorption (TD)-gas chromatography–mass spectrometry (GC–MS) analysis eliminates conventional sample preparation regimes and can be used as a good rapid screening technique. Most of the traditional methodologies for the determination of cannabinoids are based on solvent extraction, filtration, and concentration. These techniques are cumbersome, time-consuming, and suffer from analyst-to-analyst variability while producing data of limited value. As the demand for the analysis of cannabinoids increases, it is imperative that the day-to-day analytical protocols be reproducible, accurate, and efficient. Many laboratories routinely “screen” each sample to quickly determine the potential for matrix interference and instrument contamination while providing an estimate of the target compound’s concentration. A good “screening” method is simple (that is, minimal or no sample preparation), fast (analysis in less than 5 min), and semiquantitative.

* Excerpted from online journal website (Click the title)

Frontier Labs Products used:

Multi-Shot Pyrolyzer (EGA/PY-3030D), Auto-Shot Sampler (AS-1020E)