

THC Quantitation for Forensic Crime Laboratories

The Hemp Farming Act of 2018 removes the plant *Cannabis Sativa L.* from the controlled substances act "if it or a plant contains no more than 0.3% THC on a dry weight basis". With the passing of this act, as stated by Virginia Department of Forensic science "the **only mechanism** to distinguish hemp plant material from marijuana plant material is to conduct a quantitative analysis to determine the tetrahydrocannabinol (THC) concentration of the plant material."

Shimadzu offers a series of analytical high pressure liquid chromatography systems to perform THC quantitation for identification and confirmation of seized material.

Cannabis and Hemp Analyzers

Shimadzu's Cannabis and Hemp Analyzers are the comprehensive solutions for cannabinoids analysis. Integrating instrument hardware, three proven HPLC methods, certified standards, and all supplies, these packages are designed for accurate results with minimal effort to quantitate THC.

- Ready for use after one day of installation and testing
- No time-consuming method development required
- Sample submission to reporting in a few mouse clicks
- 3-year warranty and preventative maintenance plan
- FREE phone technical support for the life of the instrument



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Single Quadrupole LCMS-2020

Offering high performance at a low cost, the LCMS-2020 is an ultra-fast single-quadrupole mass spectrometer (MS) designed for ease of use with an HPLC or UHPLC system. The LCMS-2020 can be used in concert with the cannabis or hemp analyzer for confirmation of THC.



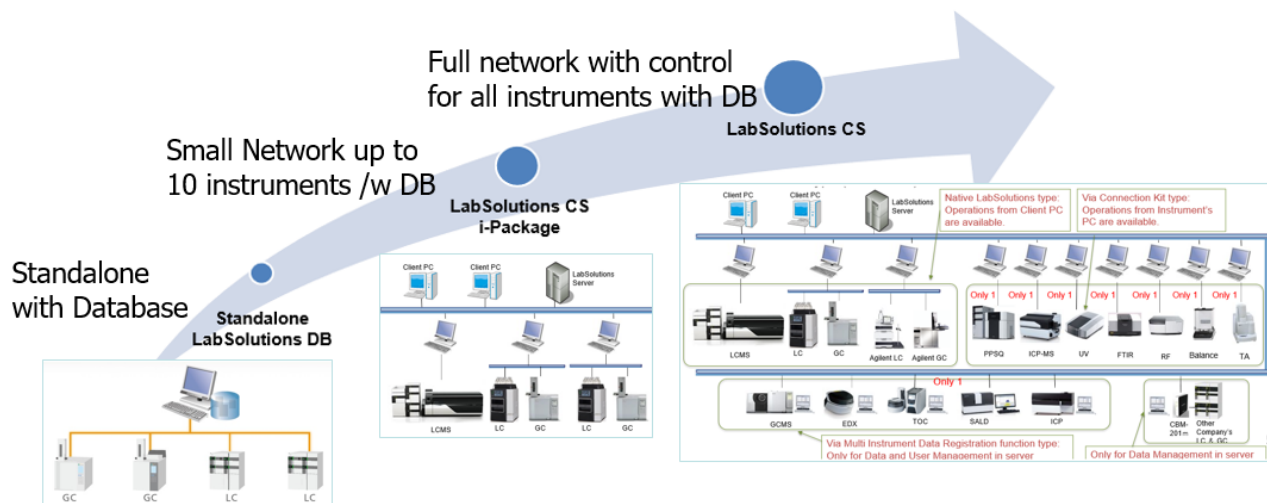
Triple Quadrupole LCMS-8040

An ultra-fast triple quadrupole mass spectrometer, incorporating improved ion optics systems for increased sensitivity. The LCMS-8040 is appropriate for laboratories working with more complex samples, such as edibles and topicals.



Software Compliance

When controlled by Shimadzu LabSolutions DB (stand-alone database) or LabSolutions CS (client-server) software, your analytical data will be stored within a Shimadzu Chromatography Data System that offers robust data integrity elements (Attributable, Legible, Contemporaneous, Original, Accurate, Complete, Consistent Enduring, Available), consistent with both ISO 17025 and 21 CFR Part 11 technical requirements.



LabSolutions DB and CS both offer many features that benefit forensic laboratories, including:

- Records are searchable in database
- Data and reports are linked to batch records
- Permanent, automatic audit trails
- Powerful reporting tools including PDF files
- Individualized user accounts with selectable rights
- Electronic signatures with name, date and time



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