

Webinar Series
Funded by the U.S. Department of Justice

Bureau of Justice Assistance

Capital Litigation Initiative:
Crime Scene to Courtroom Forensics Training

**Webinar #19: Laboratory Analysis for the Differentiation between
Marijuana and Hemp**

- I. Webinar Introduction
- II. Legal Status of Cannabis
 - a. The Farm Bill
 - b. State Specific Laws
 - c. Laboratory's Role
 - i. Compliance Testing vs. Forensic Testing
- III. Cannabis, Medical Marihuana/Marijuana, Hemp: Botany
 - a. Macroscopic and Microscopic Features
 - b. Products
- IV. Cannabinoids: Chemistry of Cannabis
 - a. THC/THCA
 - b. CBD/CBDA
 - c. Other Natural Cannabinoids
 - d. Engineered Cannabinoids
- V. Edibles, Oils, Waxes
 - a. Composition
 - b. Production
 - c. Legal definitions
- VI. Analytical Differentiation
 - a. Field Testing
 - i. Duquenois Levine
 - ii. Swiss Test

- b. Quantitation
 - i. Sample preparation
 - ii. GC Method
 - 1. Process
 - 2. Limitations
 - iii. LC Methods
 - 1. Process
 - 2. Limitations
- c. Threshold Testing
 - i. Analytical Scheme
 - ii. Limitations
- d. Edibles, Oils, and Waxes
 - i. Analytical Scheme
 - ii. Limitations

VII. Test Integrity

- a. Accreditation (ISO 17025-with Forensic Emphasis)
- b. Validation
- c. DEA 222
- d. Chain of Custody
- e. Certifying Scientists
- f. Testimony

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