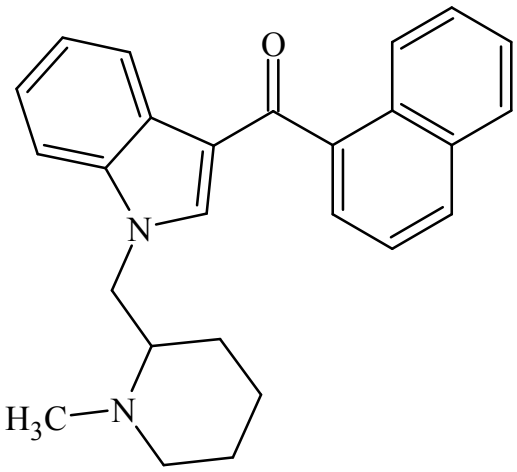
AM-1220

The Drug Enforcement Administration's Special Testing and Research Laboratory generated this monograph using structurally confirmed reference material.



1. GENERAL INFORMATION

IUPAC Name: {1-[(1-methylpiperidin-2-yl)methyl]-1*H*-indol-3-yl}(naphthalen-1-yl) methanone

CFR: Not Scheduled (10/2013)

CAS#: 137642-54-7

Synonyms: None

Source: DEA Reference Material Collection

Appearance: Yellow powder

Kovat's Index: Pending

UV_{max} (nm): Not Determined

2. CHEMICAL AND PHYSICAL DATA

2.1 CHEMICAL DATA

Form	Chemical Formula	Molecular Weight	Melting Point (^{o}C)
Base	$C_{26}H_{26}N_2O$	382	136.2

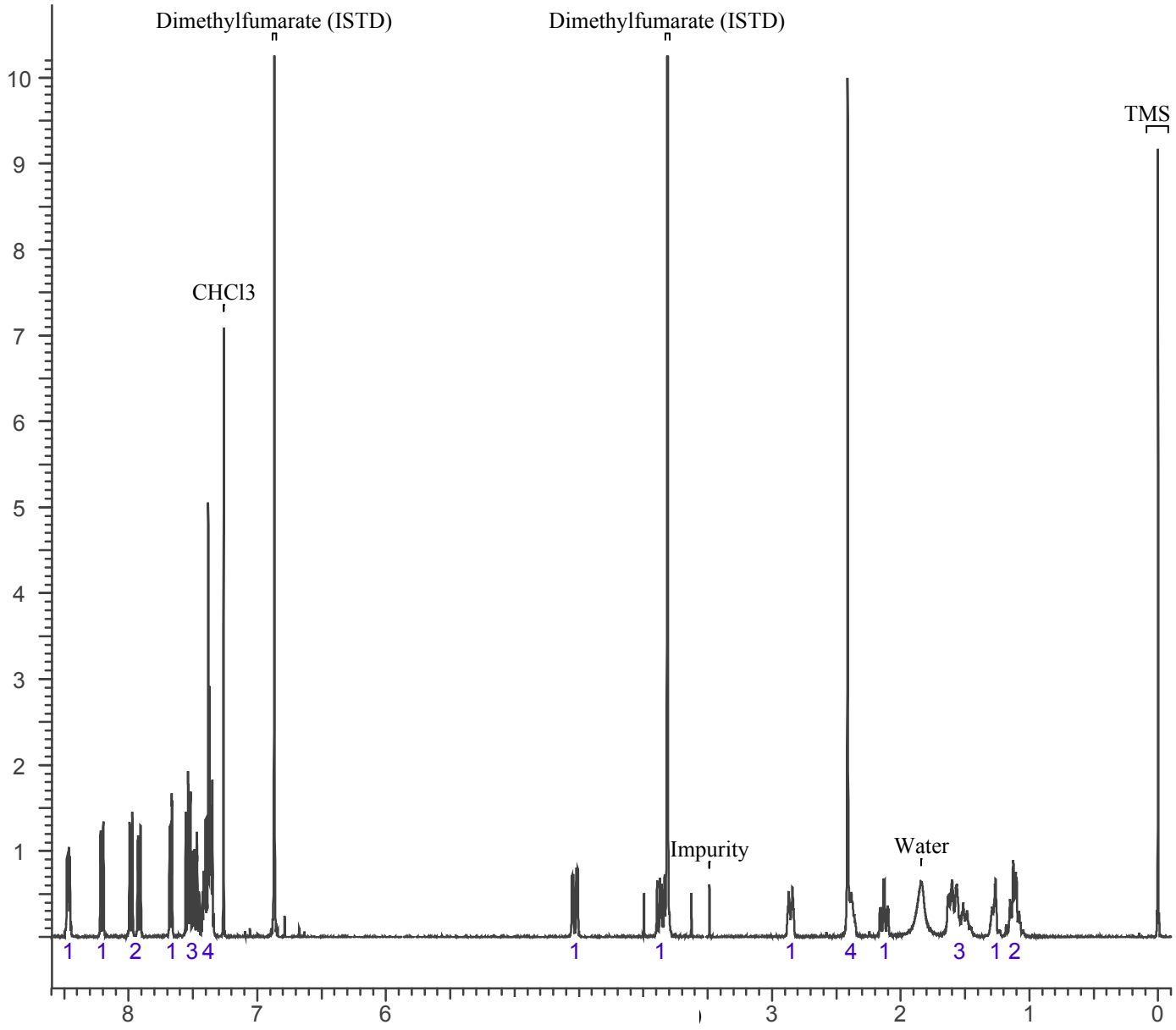
3. QUALITATIVE DATA

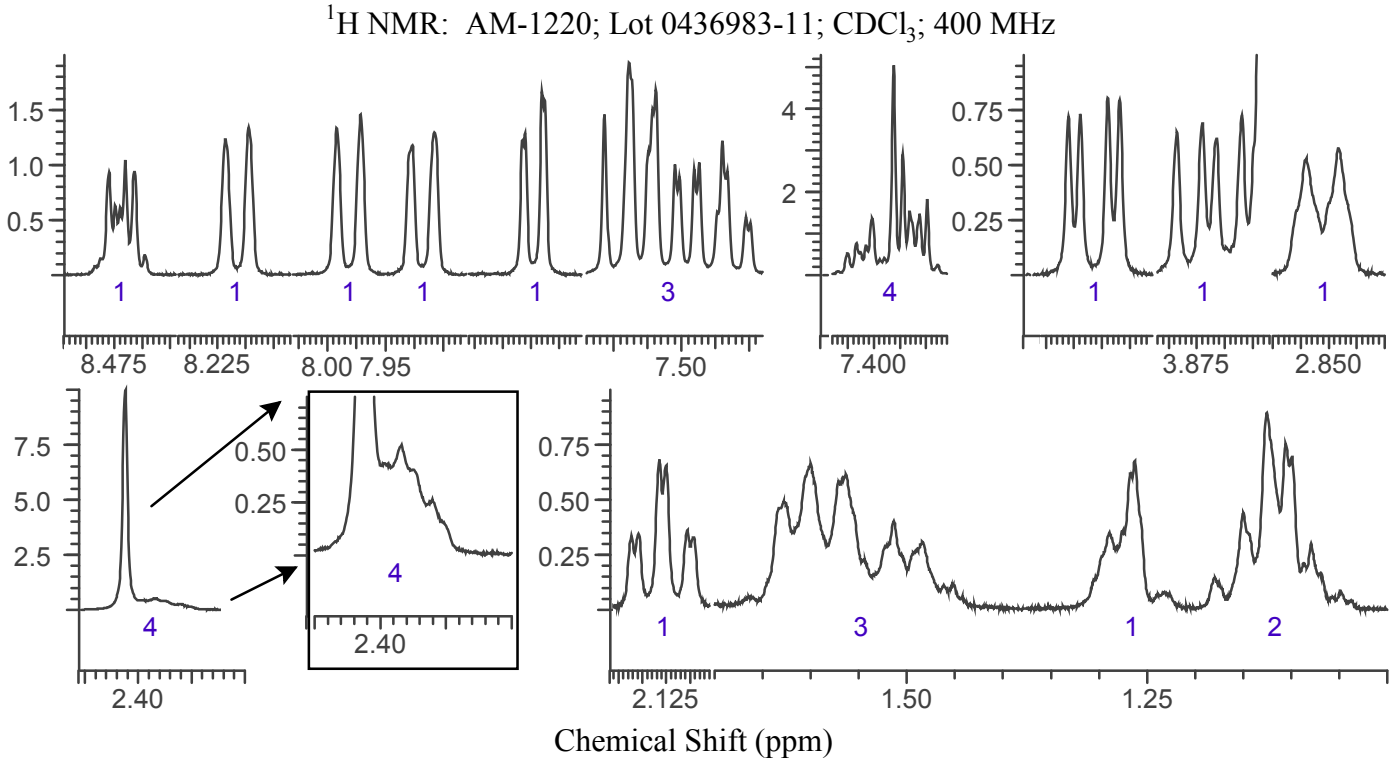
3.1 NUCLEAR MAGNETIC RESONANCE

Sample Preparation: Dilute analyte to ~5 mg/mL in deuterochloroform ($CDCl_3$) containing TMS for 0 ppm reference and dimethylfumarate as quantitative internal standard.

Instrument: 400 MHz NMR spectrometer
Parameters: Spectral width: at least containing -3 ppm through 13 ppm
Pulse angle: 90°
Delay between pulses: 45 seconds

^{1}H NMR: AM-1220; Lot 0436983-11; $CDCl_3$; 400 MHz



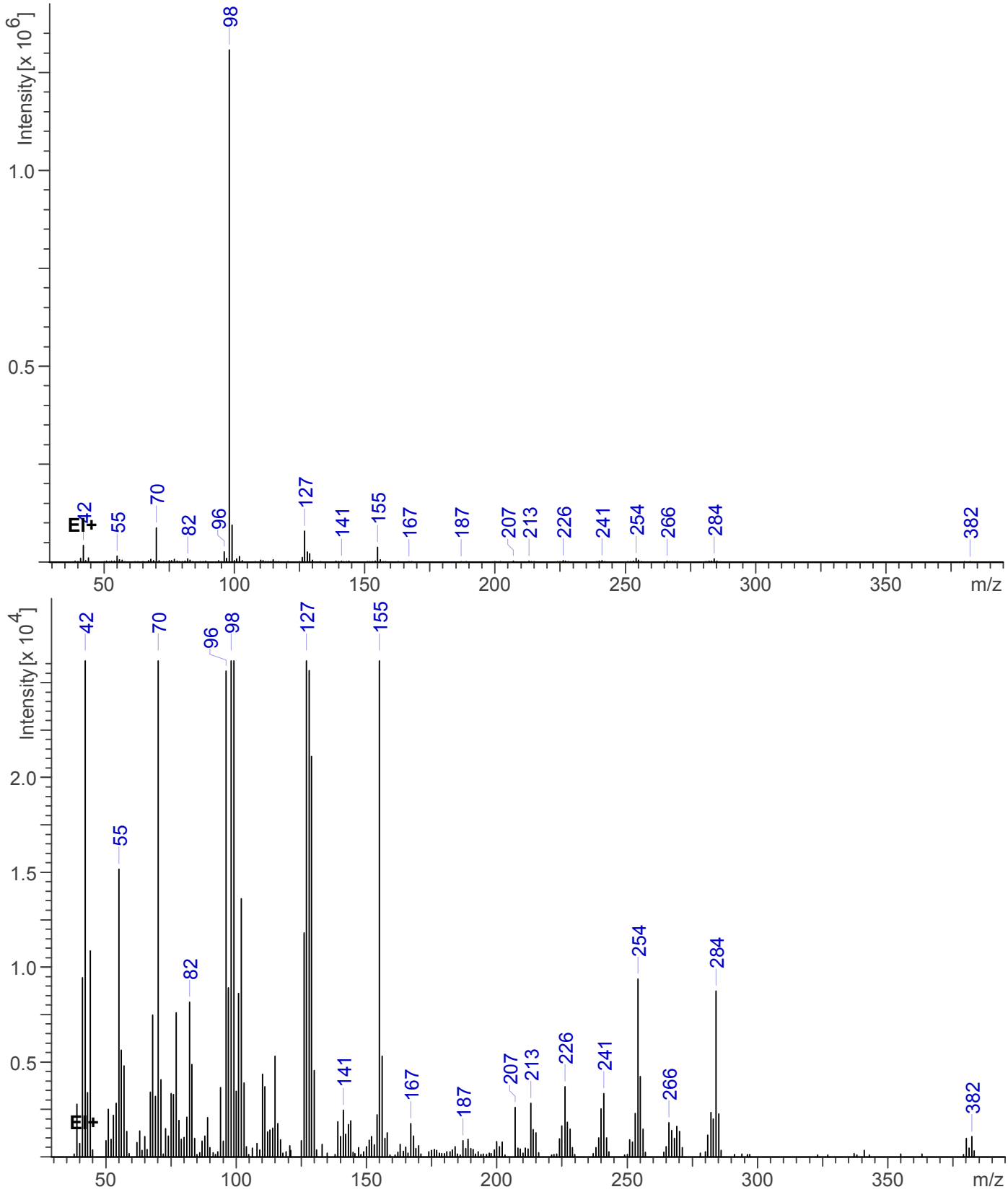


3.2 Gas Chromatography/Mass Spectrometry

Sample Preparation: Dilute analyte ~ 4 mg/mL in chloroform

Instrument:	Agilent gas chromatograph operated in split mode with MS detector
Column:	DB-1 MS (or equivalent); 30m x 0.25 mm x 0.25 µm
Carrier Gas:	Helium at 1 mL/min
Temperatures:	Injector: 280°C MSD transfer line: 280°C MS Source: 230°C MS Quad: 150°C Oven program: 1) 100°C initial temperature for 1.0 min 2) Ramp to 300°C at 12 °C/min 3) Hold final temperature for 9.0 min
Injection Parameters:	Split Ratio = 25:1, 1 µL injected
MS Parameters:	Mass scan range: 34-550 amu Threshold: 100 Tune file: stune.u Acquisition mode: scan
Retention Time:	25.119 min

EI Mass Spectrum: AM-1220; Lot 0436983-11

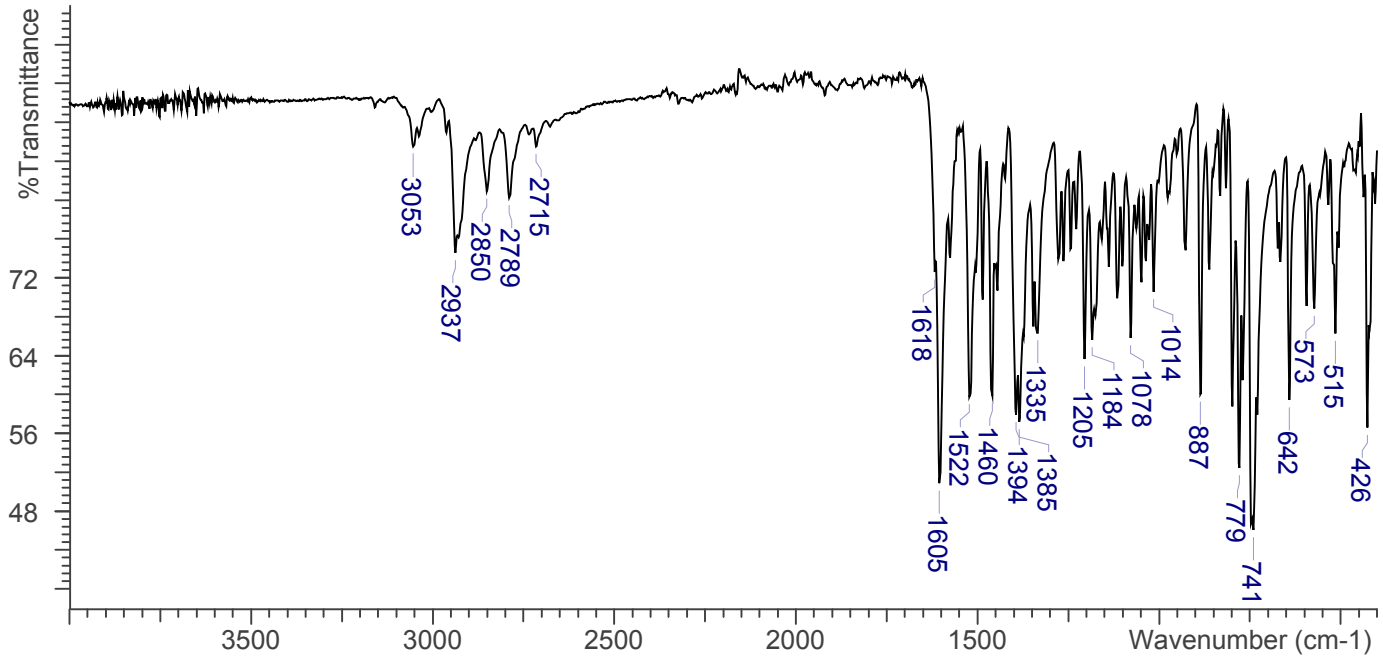


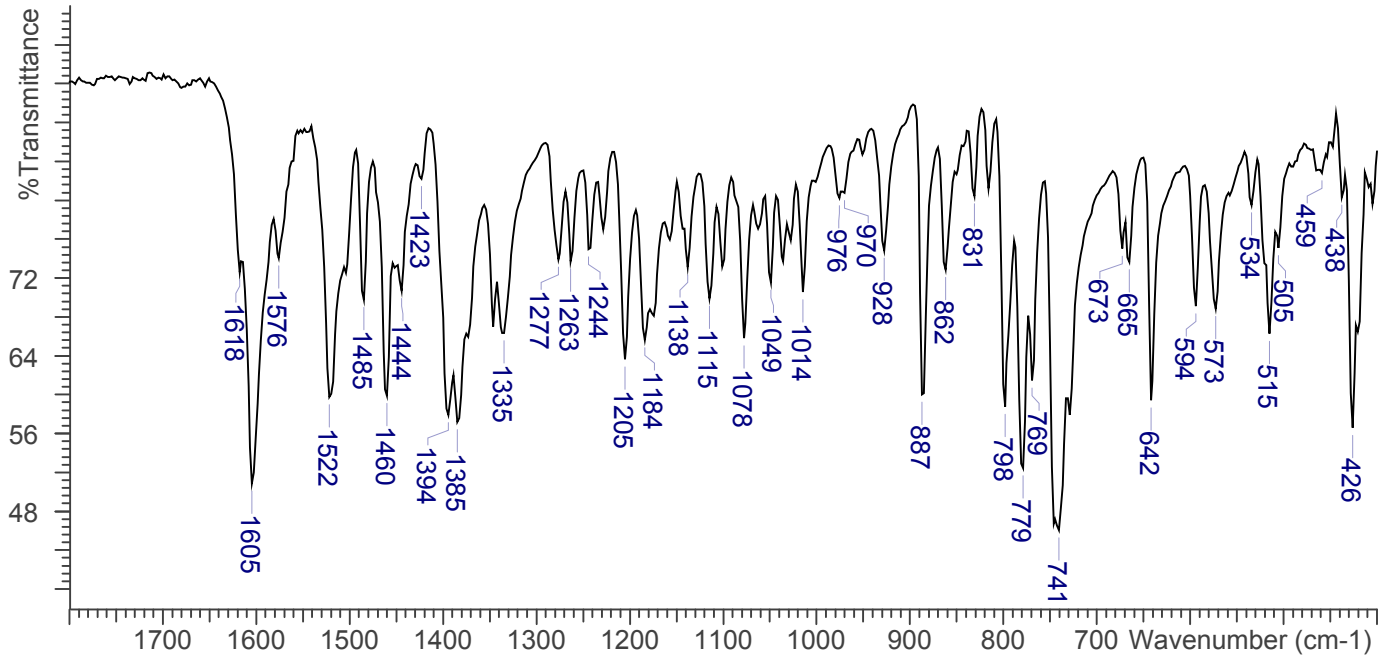
3.3 INFRARED SPECTROSCOPY (FTIR)

Insrument: FTIR with diamond ATR attachment (3 bounce)

Scan Parameters: Number of scans: 32
Number of background scans: 32
Resolution: 4 cm^{-1}
Sample gain: 8
Aperture: 150

FTIR ATR (Diamond, 3 Bounce): AM-1220; Lot 0436983-11





4. ADDITIONAL RESOURCES

Kneisel, S.; Bisel, P.; Brecht, V.; Broecker, S.; Müller, M.; Auwärter, V. Identification of the cannabimimetic AM-1220 and its azepane isomer (*N*-methylazepan-3-yl)-3-(1-naphthoyl)indole in a research chemical and several herbal mixtures. *Forensic Toxicol.* **2012,** *30* (2), 126-134.

Uchiyama, N.; Kawamura, M.; Kikura-Hanajiri, R.; Goda, Y. Identification of two new-type synthetic cannabinoids, *N*-(1-adamantyl)-1-pentyl-1*H*-indole-3-carboxamide (APICA) and *N*-(1-adamantyl)-1-pentyl-1*H*-indazole-3-carboxamide (APINACA), and detection of five synthetic cannabinoids, AM-1220, AM-2233, AM-1241, CB-13 (CRA-13), and AM-1248, as designer drugs in illegal products. *Forensic Toxicol*. **2012,** *30* (2) 114-125.

Kneisel, S.; Westphal, F.; Moosmann, B.; Brecht, V.; Bisel, P.; Vidal, C.; Jacobsen-Bauer, A.; Bork, W.; Auwärter, V. Trends auf dem Gebiet der synthetischen Cannabinoidmimetika: Massenspektren und ATR-IR-Spektren neuer Verbindungen aus dem Zeitraum Ende 2010 bis Ende 2011. Toxichem Krimtech, **2011**; *78* (3); 465-478.

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Wikipedia