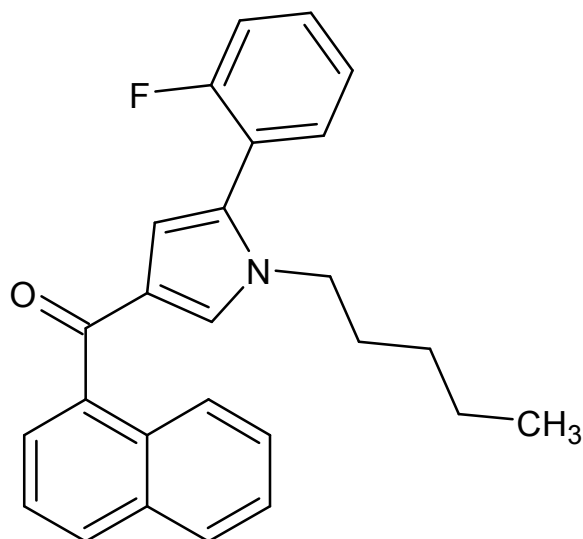




## JWH-307

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



### 1. GENERAL INFORMATION

<b>IUPAC Name:</b>	[5-(2-Fluorophenyl)-1-pentyl-1H-pyrrol-3-yl](naphthalene-1-yl)methanone
<b>CAS#:</b>	914458-26-7
<b>Synonyms:</b>	N/A
<b>Source:</b>	DEA Reference Material Collection
<b>Appearance:</b>	White powder
<b>UV<sub>max</sub>(nm):</b>	Not Determined

### 2. CHEMICAL AND PHYSICAL DATA

#### 2.1 CHEMICAL DATA

Form	Chemical Formula	Molecular Weight	Melting Point (°C)
Base	C <sub>26</sub> H <sub>24</sub> FNO	385	81.6



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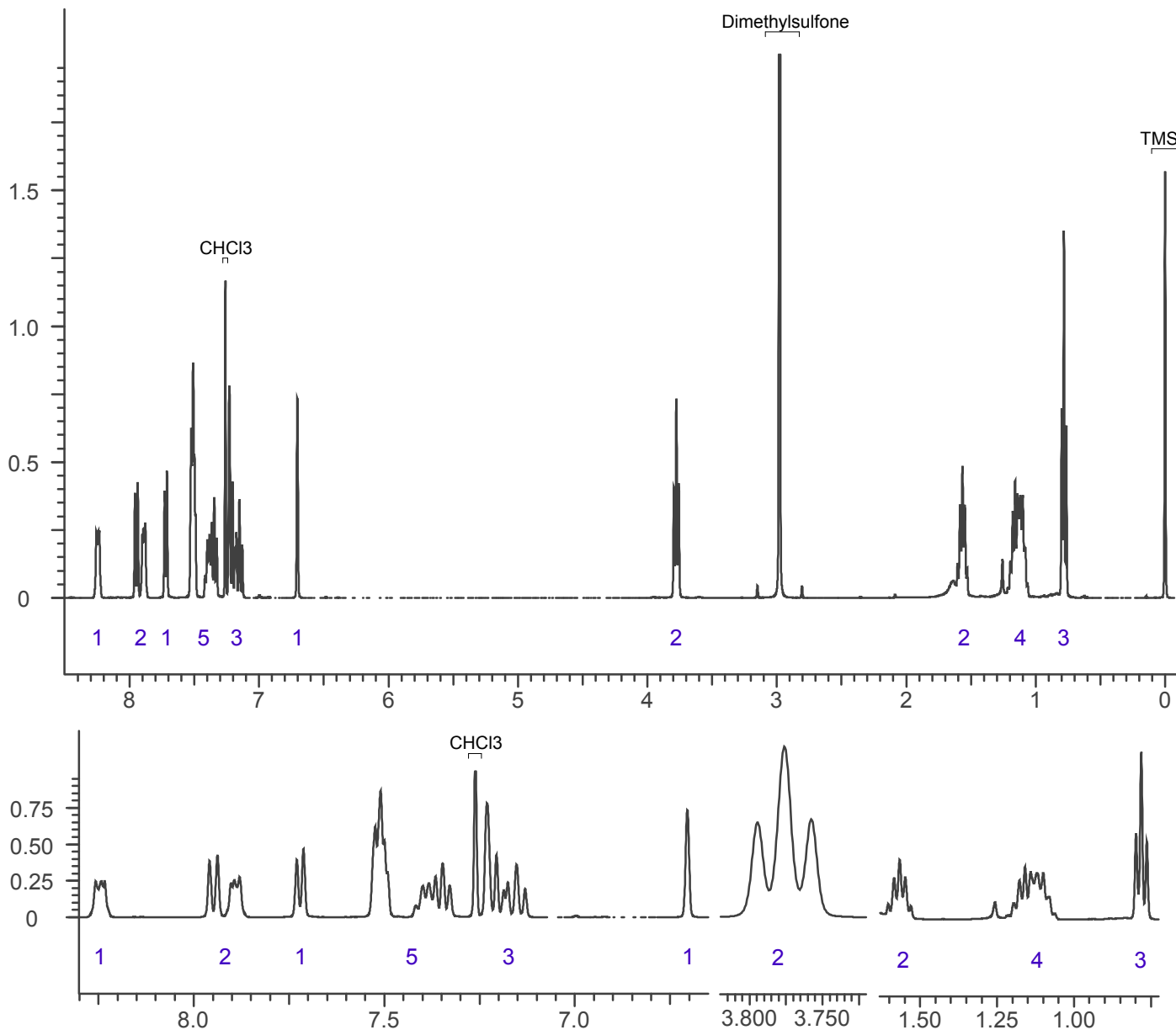
## 3. QUALITATIVE DATA

### 3.1 NUCLEAR MAGNETIC RESONANCE

**Sample Preparation:** Dilute analyte to ~5 mg/mL in  $\text{CDCl}_3$  containing TMS for 0 ppm reference and dimethylsulfone as quantitative internal standard.

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

$^1\text{H}$  NMR: JWH-307 Lot # 0439287-1;  $\text{CDCl}_3$ ; 400 MHz





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### 3.2 GAS CHROMATOGRAPHY/MASS SPECTROMETRY

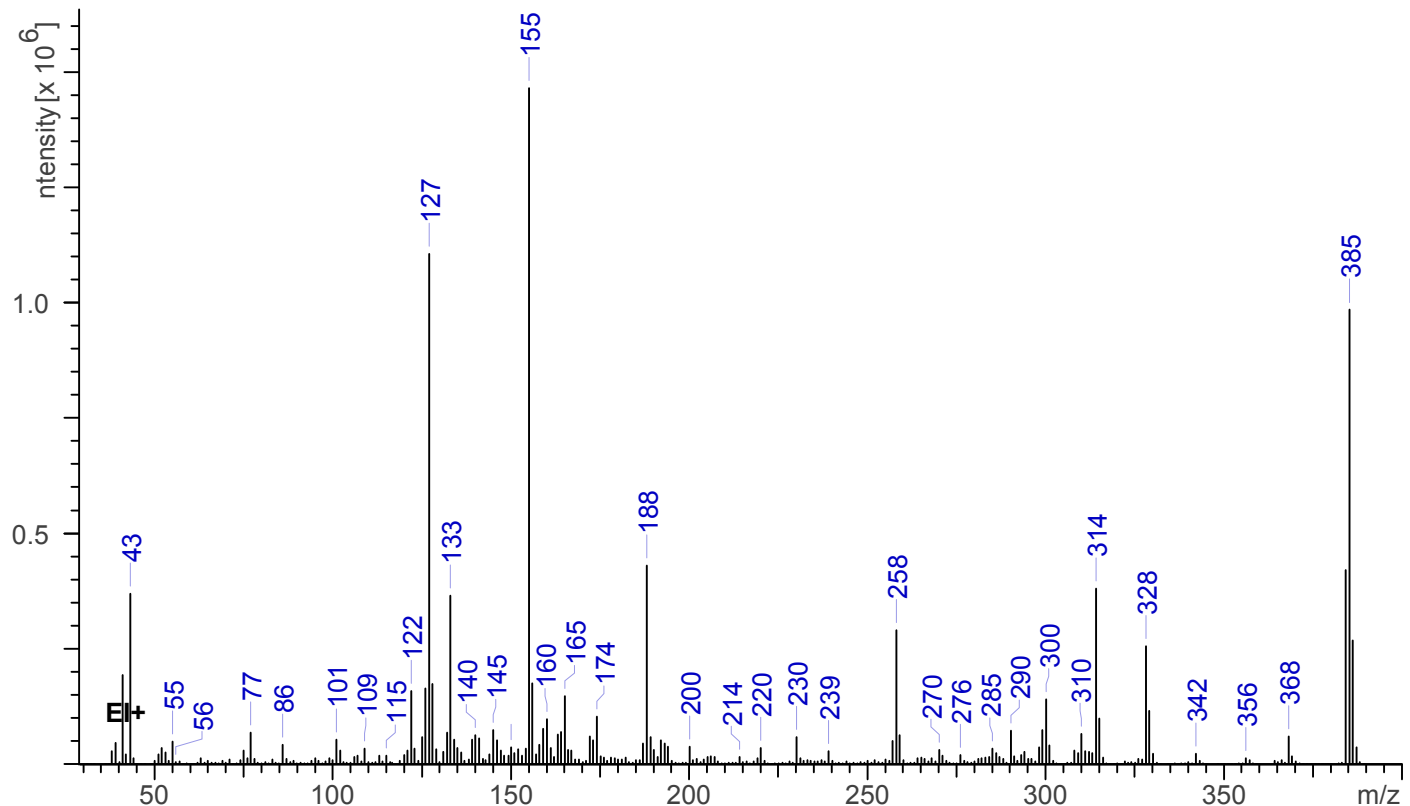
*Sample Preparation:* Dilute analyte ~4 mg/mL in chloroform.

**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  $\mu$ m  
**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 30.0 min

**Injection Parameters:** Split Ratio = 20:1, 1  $\mu$ L injected  
**MS Parameters:** Mass scan range: 30-550 amu  
Threshold: 100  
Tune file: stune.u  
Acquisition mode: scan

**Retention Time:** 21.066 min

EI Mass Spectrum: JWH-307 Lot # 0439287-1





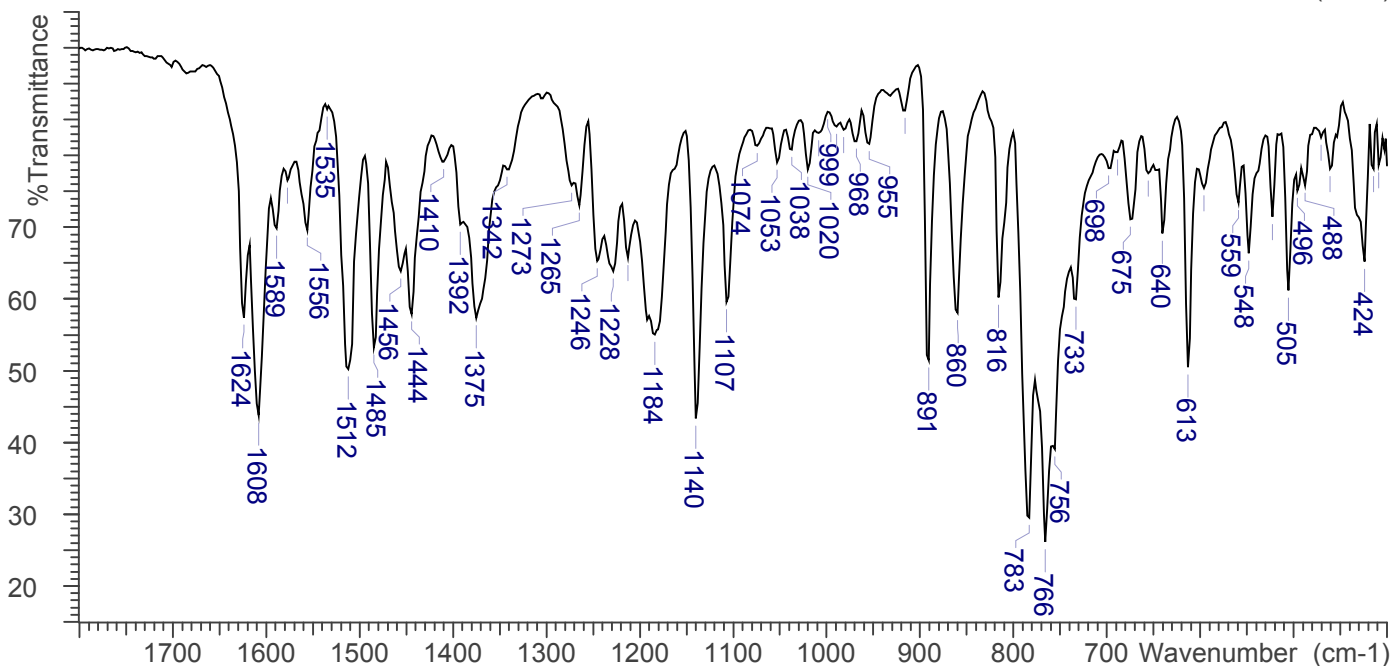
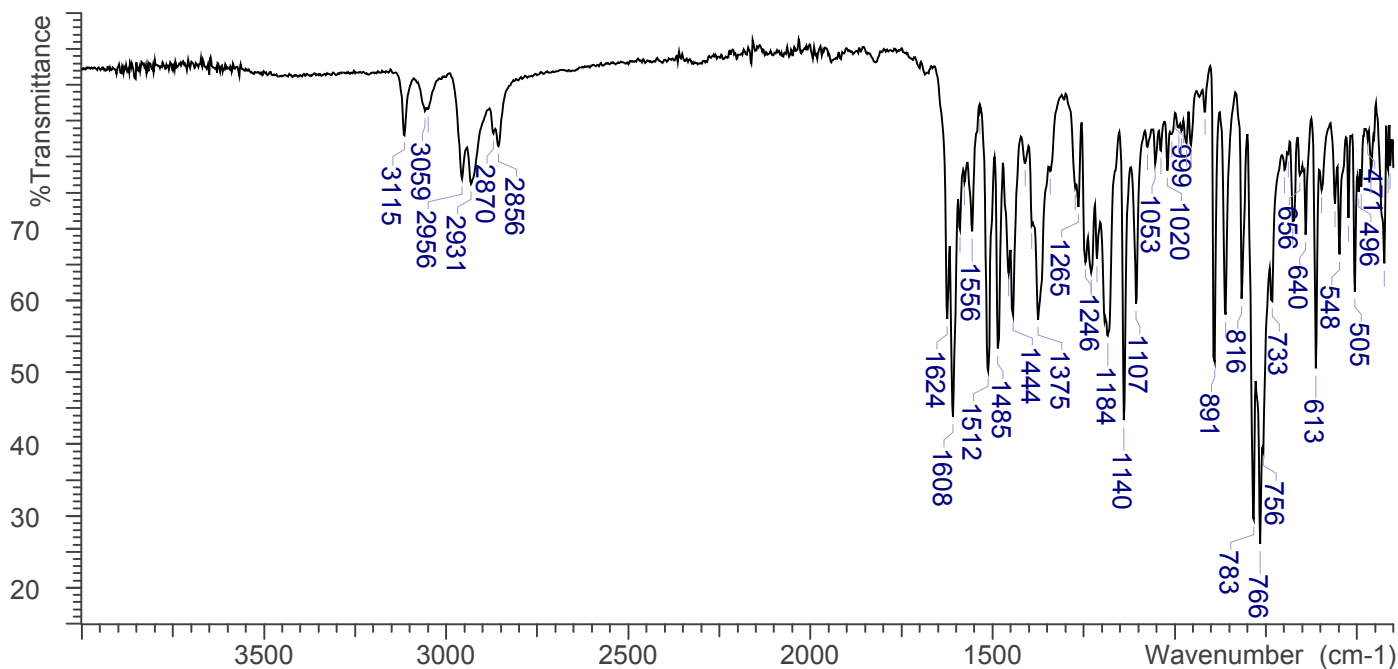
The Drug Enforcement Administration's Special Testing and Research Laboratory generated this monograph using structurally confirmed reference material.

### 3.3 INFRARED SPECTROSCOPY (FTIR)

**Instrument:** FTIR with diamond ATR attachment (3 bounce)

**Scan Parameters:**  
Number of scans: 32  
Number of background scans: 32  
Resolution: 4 cm<sup>-1</sup>  
Sample gain: 8  
Aperture: 150

FTIR ATR (Diamond, 3 Bounce): JWH-307 Lot # 0439287-1





## JWH-307

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### 4. ADDITIONAL RESOURCES

[Forendex](#)

[Wikipedia](#)

Ernst, L. et al. "Synthetic cannabinoids in 'spice-like' herbal blends: First appearance of JWH-307 and recurrence of JWH-018 on the German market." *Forensic Science International* (2012).