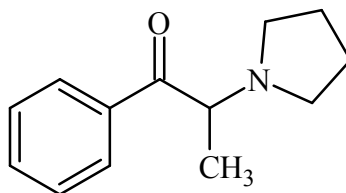




alpha-PPP

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



1. GENERAL INFORMATION

IUPAC Name: 1-phenyl-2-(pyrrolidin-1-yl)propan-1-one

CAS#: 19134-50-0 (Base)
92040-10-3 (HCl)

Synonyms: alpha-Pyrrolidinopropiophenone, α -PPP,
1-phenyl-2-(1-pyrrolidinyl)-1-propanone

Source: DEA Reference Material Collection

Appearance: Beige powder

UV_{max}(nm): Not Determined

2. CHEMICAL AND PHYSICAL DATA

2.1 CHEMICAL DATA

Form	Chemical Formula	Molecular Weight	Melting Point (°C)
Base	C ₁₃ H ₁₇ NO	203.28	Not Determined
HCl	C ₁₃ H ₁₇ NO HCl	239.74	Not Determined



alpha-PPP

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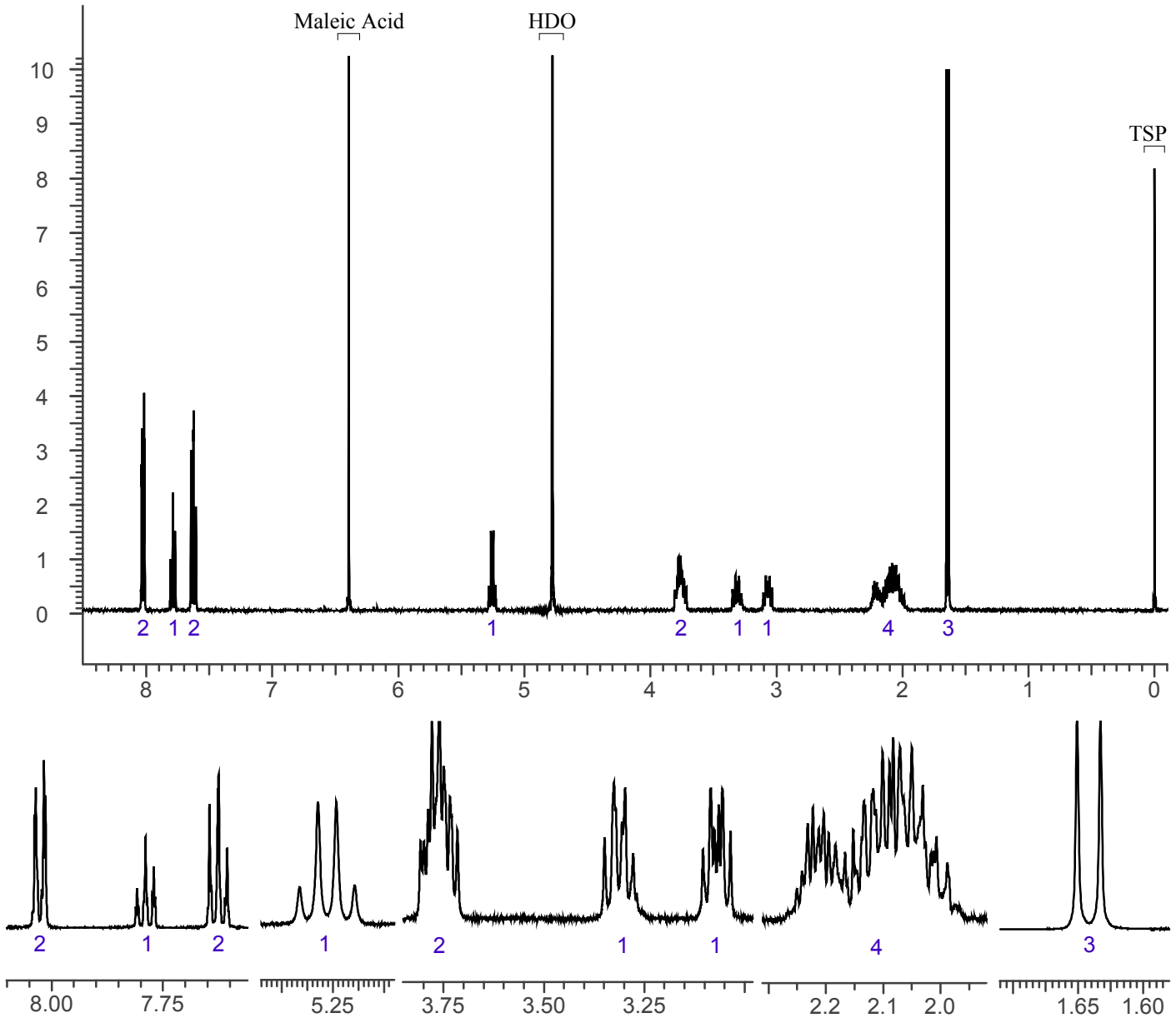
3. QUALITATIVE DATA

3.1 NUCLEAR MAGNETIC RESONANCE

Sample Preparation: Dilute analyte to ~4 mg/mL in D₂O containing TMS for 0 ppm reference and maleic acid as quantitative internal standard.

Instrument: 400 MHz NMR spectrometer
Parameters: Spectral width: at least containing -2.9 ppm through 13.1 ppm
Pulse angle: 90°
Delay between pulses: 45 seconds

¹HNMR: alpha-PPP HCl; Lot 0491370-7; D₂O; 400MHz





alpha-PPP

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3.2 GAS CHROMATOGRAPHY/MASS SPECTROMETRY

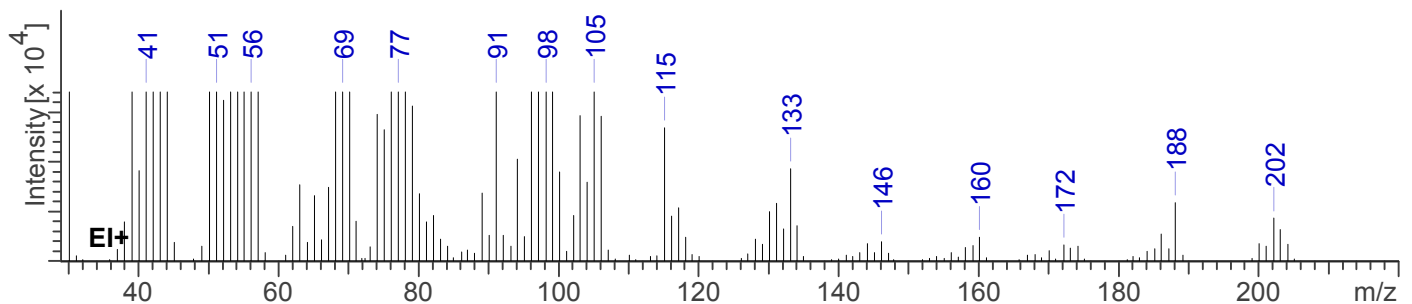
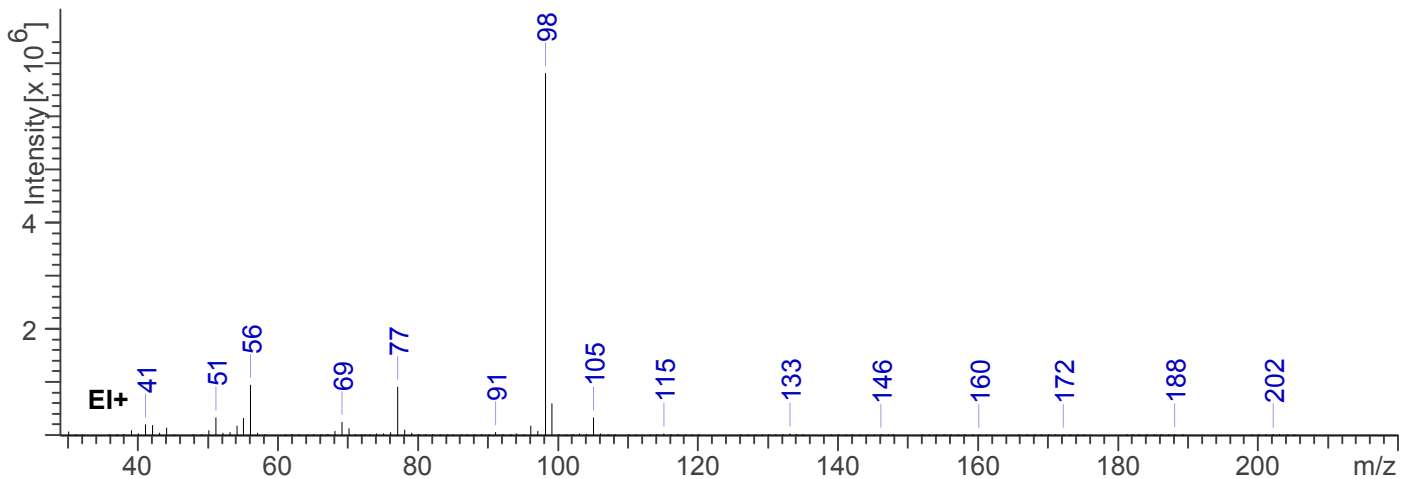
Sample Preparation: Dilute analyte ~4 mg/mL in chloroform base extracted with sodium carbonate.

Instrument: Agilent gas chromatograph operated in split mode with MS detector
Column: HP-5 MS (or equivalent); 30m x 0.25 mm x 0.25 μ m
Carrier Gas: Helium at 1.5 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 280°C at 12 °C/min
3) Hold final temperature for 9.0 min

Injection Parameters: Split Ratio = 25:1, 1 μ L injected
MS Parameters: Mass scan range: 30-550 amu
Threshold: 100
Tune file: stune.u
Acquisition mode: scan

Retention Time: 8.290 min

EI Mass Spectrum: alpha-PPP HCl; Lot 0491370-7





alpha-PPP

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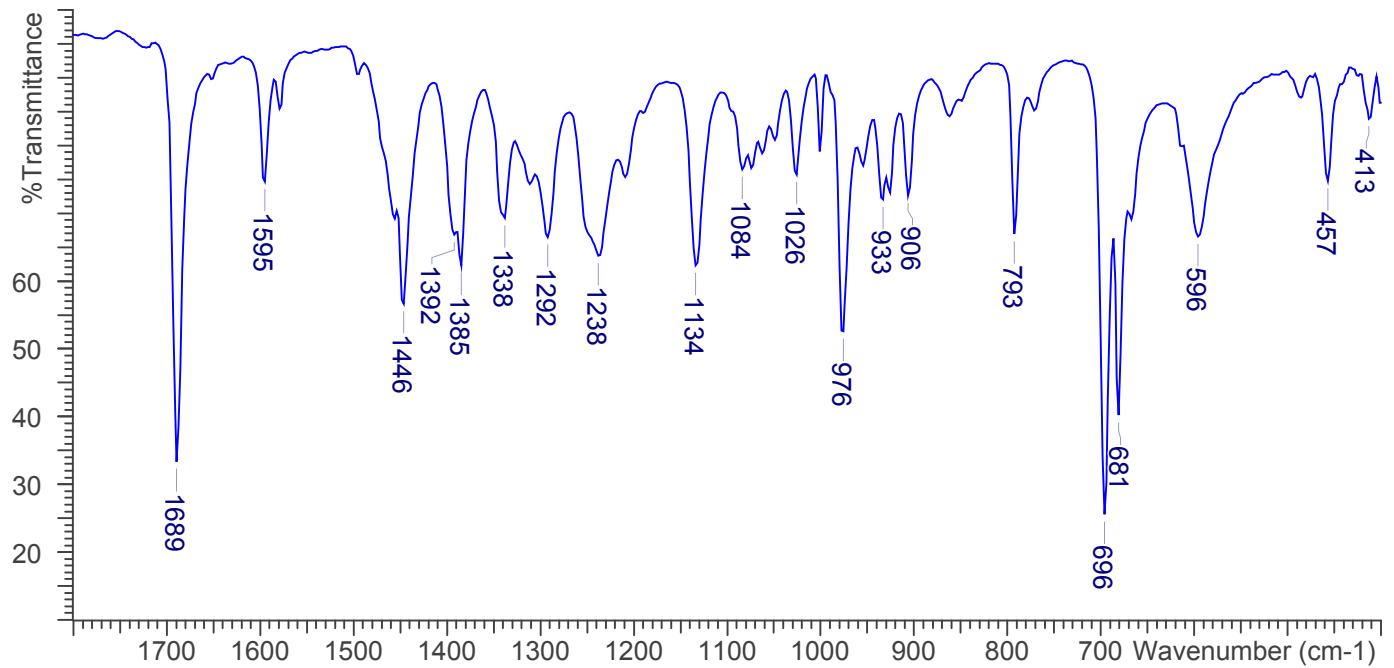
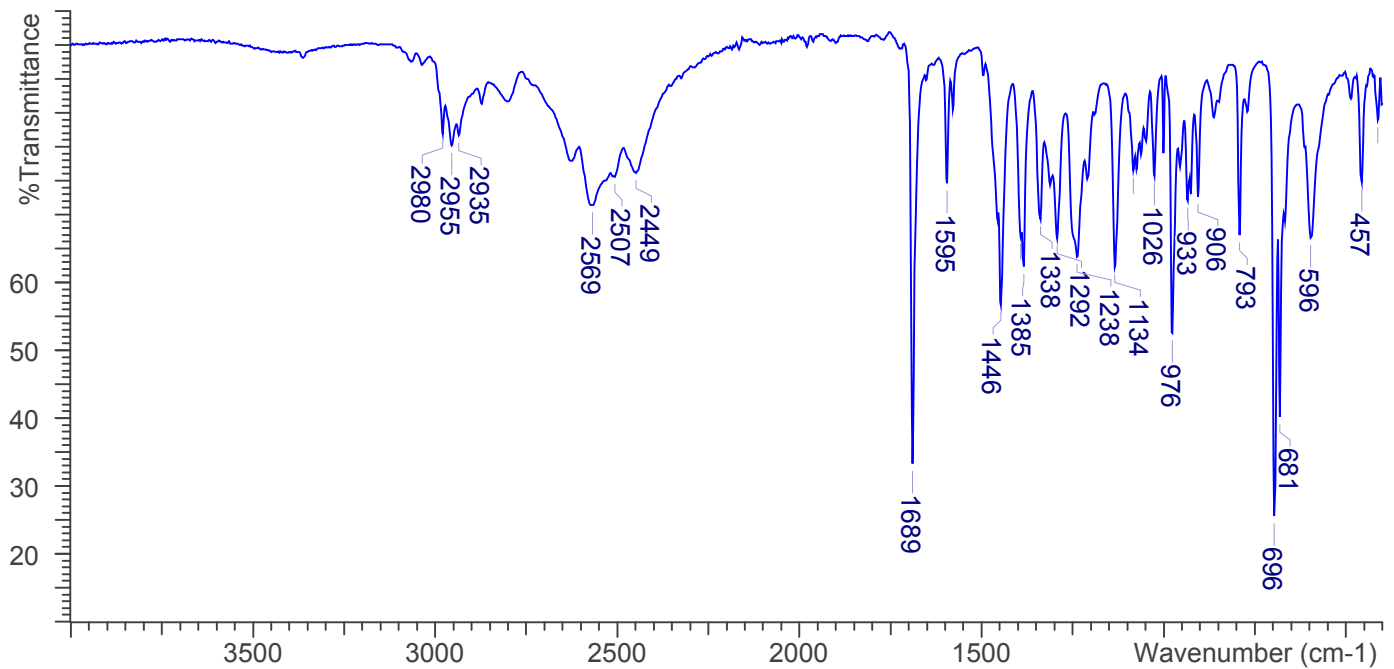


3.3 INFRARED SPECTROSCOPY (FTIR)

Instrument: FTIR with Golden Gate diamond ATR attachment (1 bounce)

Scan Parameters:
Number of scans: 16
Number of background scans: 16
Resolution: 4 cm^{-1}
Sample gain: 8
Aperture: 150

FTIR (Golden Gate ATR, 1 Bounce): alpha-PPP HCl; Lot 0491370-7





alpha-PPP

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



4. ADDITIONAL RESOURCES

[*Forendex*](#)

[*Wikipedia*](#)