

1. SYNONYMS

CFR:	Not Listed
CAS #:	None
Stride II:	5-Methoxy-alpha-methyltryptamine
Other Names:	5-MeO-AMT α -O-Dimethylserotonin ALPHA-O

2. CHEMICAL AND PHYSICAL DATA

2.1. CHEMICAL DATA

Form	Chemical Formula	Molecular Weight	Melting Point (°C)
Hydrochloride	C ₁₂ H ₁₇ N ₂ OCl	240.7	216-218

2.2. SOLUBILITY

Form	A	C	E	H	M	W
Hydrochloride	***	I	***	***	S	S

A = acetone, C = chloroform, E = ether, H = hexane, M = methanol and W = water, VS = very soluble, FS = freely soluble, S = soluble, PS = sparingly soluble, SS = slightly soluble, VSS = very slightly soluble and I = insoluble

Note: 5-Methoxy- α -methyltryptamine is soluble in dilute mineral acids and organic acids.

3. SCREENING TECHNIQUES

3.1. COLOR TESTS

REAGENT	COLOR PRODUCED
Van Urk's	Purple to blue (2 min)

3.2. THIN LAYER CHROMATOGRAPHY

Visualization

Van Urk's reagent

COMPOUND	Relative R _f System TLC 18
dimethyltryptamine	0.44
diethyltryptamine	1.26
5-methoxy-α-methyltryptamine	1.00 (5.75cm)
5-methoxydiisopropyltryptamine	1.41

3.3. GAS CHROMATOGRAPHY

Method DMT-GCS1

Instrument:

Gas chromatograph operated in split mode with FID

Column:

J&W DB-1 15 m x 0.32 mm x 0.25 μ m film thickness

Carrier gas:

Helium at 1.3 mL/min

Temperatures:

Injector: 275°C
 Detector: 280°C
 Oven program:
 190°C initial for 10 min

Injection Parameters:

Split Ratio = 60:1, 1 μ L injected

Samples are to be dissolved in chloroform, washed with dilute sodium carbonate and filtered.

COMPOUND	RRT	COMPOUND	RRT
indole	0.29	DET	0.89

MDA	0.36	C-4 phthalate	0.92
MDMA	0.40	5-MeOAMT	1.00 (2.98 min)
tryptamine	0.55	5-MeODMT	1.11
AMT	0.58	DIPT	2.38
DMT	0.62	C-5 phthalate	1.57
caffeine	0.68	5-MeODIPT	2.40

4. SEPARATION TECHNIQUES

The only reported encounters with this compound to date have been as a powder. Because 5-MeOAMT HCl is insoluble in chloroform, liquid-liquid extraction should be used to recover the free base as a chloroform solution. Dissolve the sample in chloroform and wash with dilute sodium carbonate. The organic layer can then be evaporated for analysis or converted to the hydrochloride.

5. QUANTITATIVE PROCEDURES

5.1. GAS CHROMATOGRAPHY

Method NCL-5-MeOAMT-GCQ1

Internal Standard Stock Solution:

4.0 mg/mL dipentylphthalate in chloroform.

Standard Solution Preparation:

Accurately weigh and prepare a standard solution of 5-MeOAMT approximately equivalent to 1.0 mg/mL using above internal standard stock solution. Wash with dilute sodium carbonate solution and filter through cotton or glass wool.

Sample Preparation:

Accurately weigh an amount of sample into a volumetric flask and dilute with internal standard stock solution. If necessary, dilute the sample so the final concentration approximates the standard concentration or falls within the linear range. Wash with dilute sodium carbonate solution and filter through cotton.

Instrument:

Gas chromatograph operated in split mode with FID

Column:

J&W DB-1, 15 m x 0.32 mm x 0.25 µm film thickness

Carrier gas:

Helium at 1.3 mL/min

Temperatures:

Injector: 275°C

Detector: 280°C

Oven: 190°C for 10 min

Injection Parameters: Split Ratio = 60:1, 1 µL injected

Typical Retention Time: 5-MeOAMT: 2.98 min
Dipentylphthalate: 4.68 min

Linear Range: 0.01 - 4.00 mg/mL

Repeatability: RSD less than 1.0%

Correlation Coefficient: 0.999

Accuracy: Error less than 5%

COMPOUND	RRT
indole	0.28
dimethyltryptamine	0.63
5-MeOAMT	1.00 (2.98 min)
dipentylphthalate (C-5)	1.57
5-MeODIPT	2.54

6. QUALITATIVE DAT

See spectra on the following pages for [FT-IR](#), [Mass Spectrometry](#), [Vapor Phase IR](#), [Raman](#) and [Nuclear Magnetic Resonance](#).

7. REFERENCES

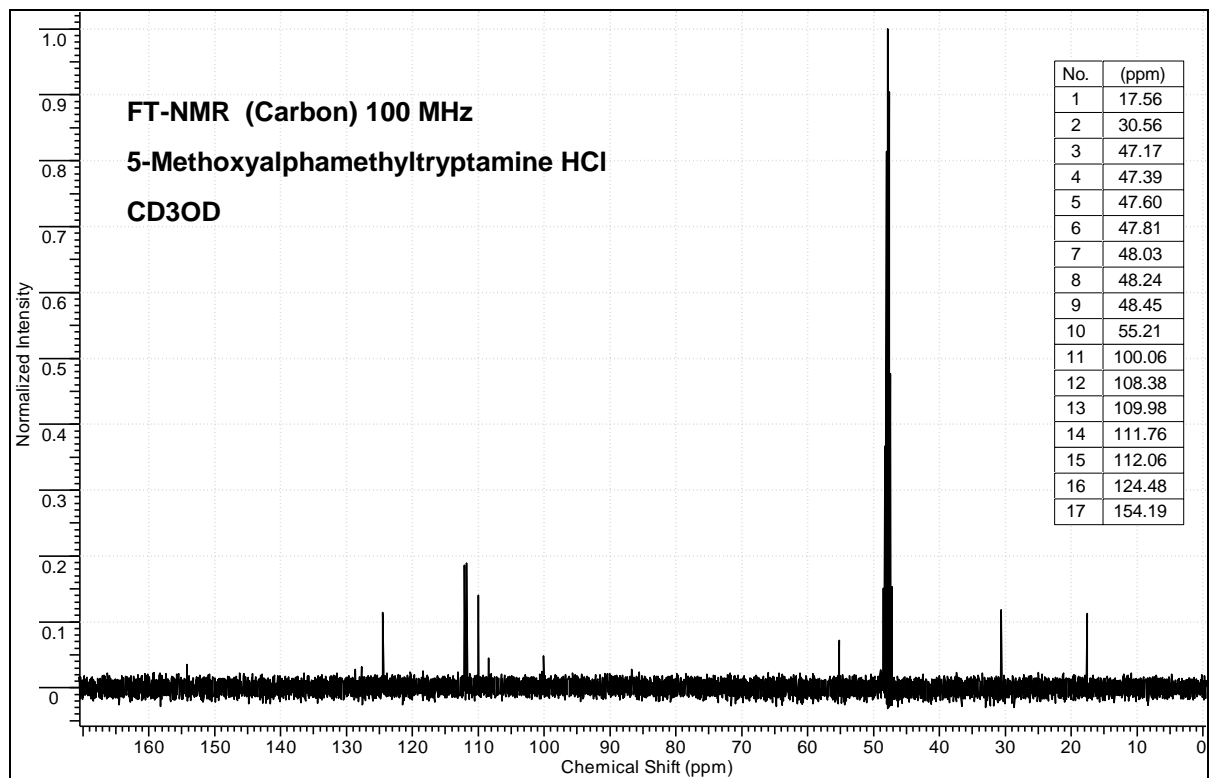
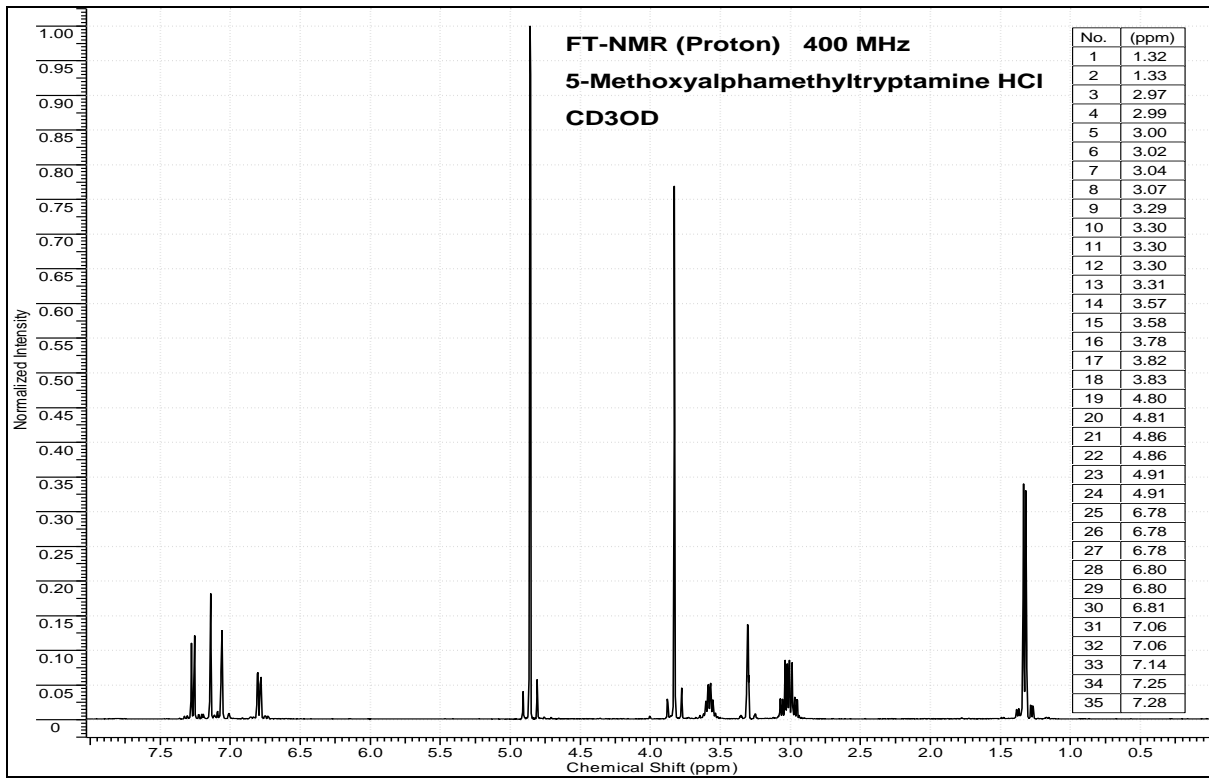
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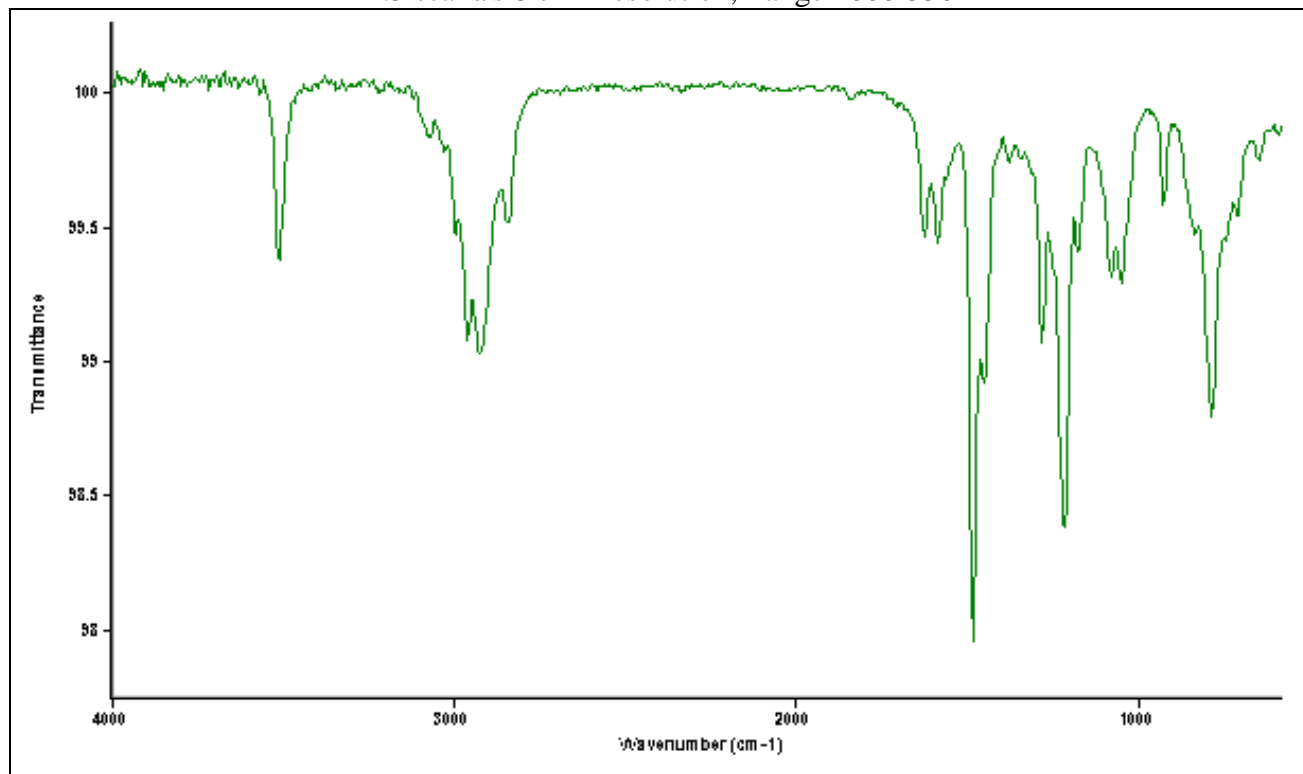
8. ADDITIONAL RESOURCES

[Forendex](#)

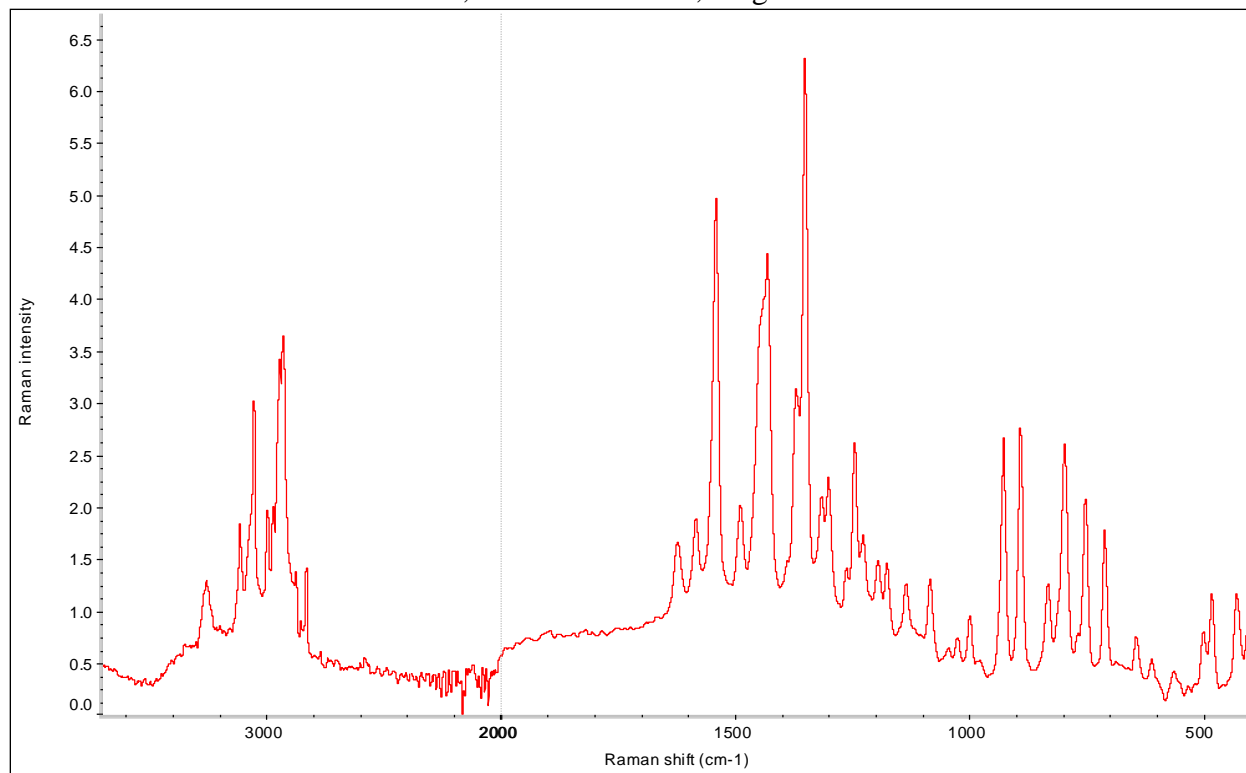
[Wikipedia](#)

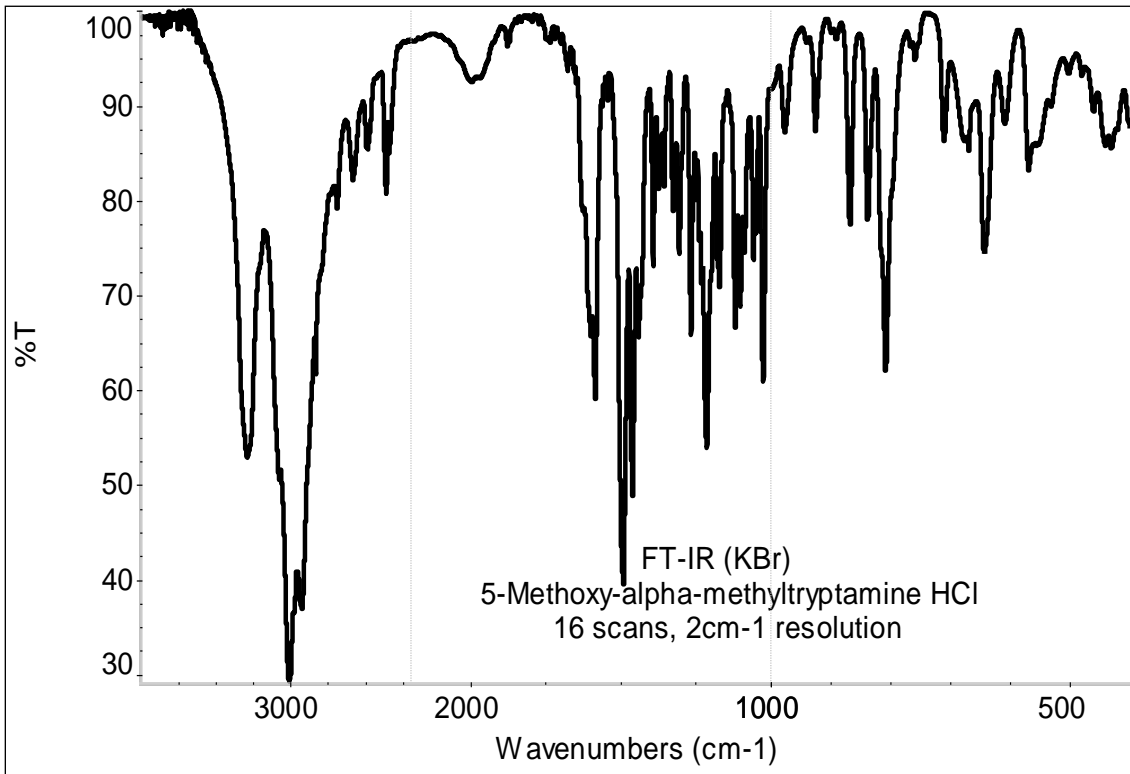
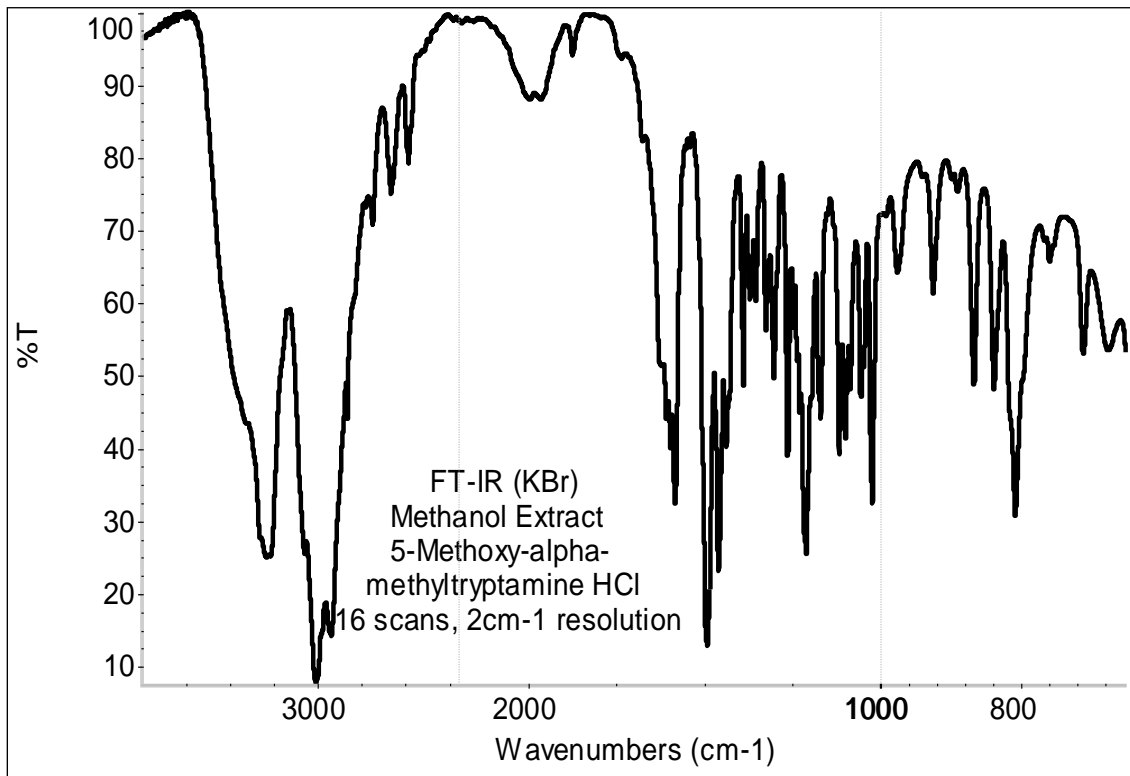


IR (Vapor Phase): 5-MeOAMT
1.5 scans/s 8 cm⁻¹ resolution, range 4000-550



RAMAN: 5-MeAMT HCl
64 scans, 8 cm⁻¹ resolution, range 3700-410





Mass Spectrum (EI): 5-Methoxy- α -methyltryptamine base in chloroform
160°C, 1 min; 20°C ramp; 310°C, 2 min, 30 M HP-5 MS; split ratio 100:1

