



INDOFINE Chemical Company, Inc.

121 Stryker Lane, Bldg. 30, Suite 1 • Hillsborough, NJ 08844 • U.S.A.

Phone: (908) 359-6778 • FAX: (908) 359-1179

website: www.indofinechemical.com

e-mail: chemical@indofinechemical.com

CERTIFICATE OF ANALYSIS

Catalog Number: H-005

Product Name: **HARMINE**

CAS Number: [442-51-3]

Lot No.: 1807109

Molecular Formula: C₁₃H₁₂N₂O

Molecular Weight: 212.25

Appearance: Off-white crystalline powder

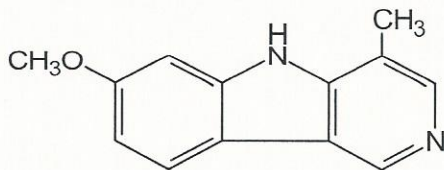
Melting Point: 265-267°C

Moisture (KF): 0.32%

TLC: Chloroform:Methanol (9:1)

NMR Spectrum: Enclosed (Conforms to the structure)

Purity (HPLC): 99.65%



Prepared by:
Ramesh Mandadi
Ramesh Mandadi
Director of Operations

Reviewed and approved by:
Sujata Moton
S. Moton
VP



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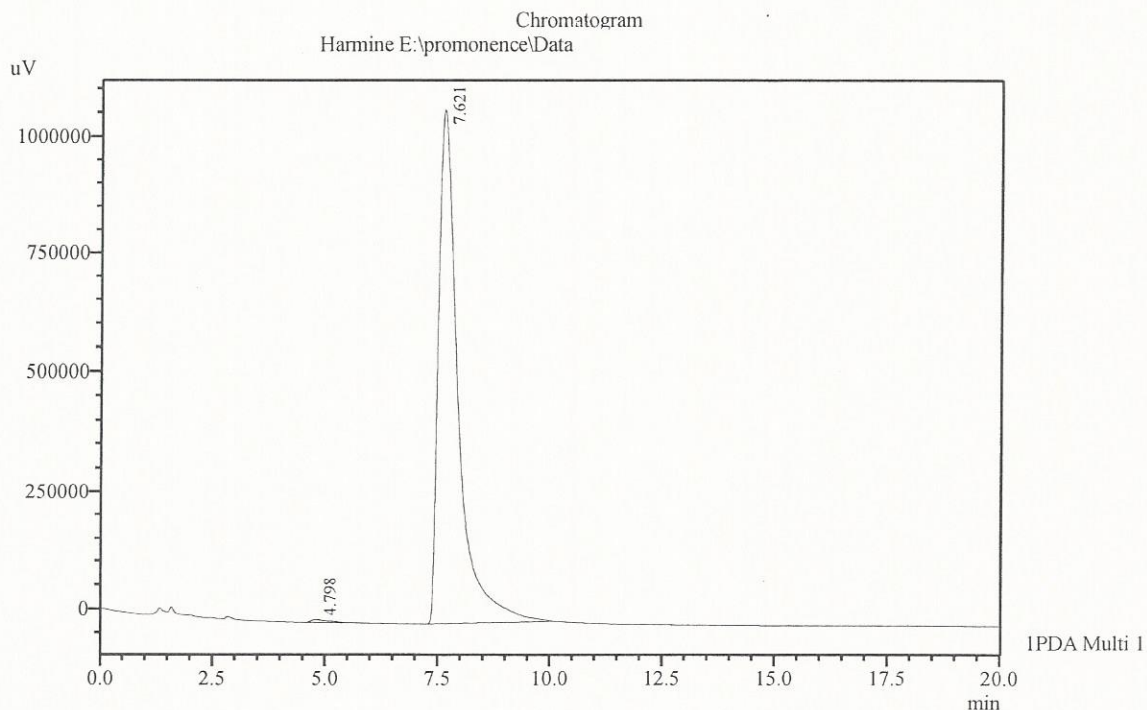
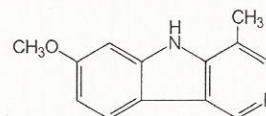
Hillsborough, NJ 08844 USA

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HPLC ANALYSIS

Acquired by : Admin
Sample Name : Harmine
Sample ID : 1.0 kg-LOT
Injection Volume : 20 uL
Data Filename : 230718F.lcd
Method Filename : Linear Isocratic.M.lcm
Report Filename : Default.lcr

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Product Name: Harmine
Lot No.: 1807109



PDA Ch1 210nm 4nm

PeakTable

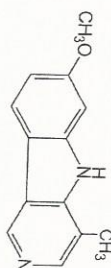
Peak#	Name	Ret. Time	Height	Area %	Relative Retention Time
1	RT:4.798	4.798	6155	0.63	0.63
2	RT:7.621	7.621	1086180	99.37	1.00
Total			1092335	100.00	

Prepared by:
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VP



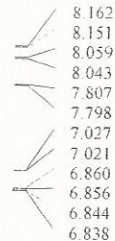
INDOFINE Chemical Company, Inc.
121 STRYKER LANE
BLDG. 30, SUITE 1
HILLSBOROUGH, NJ 08844



Catalog No.: H-005
Product Name: Harmine
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proton-1-2.jdt

11 427



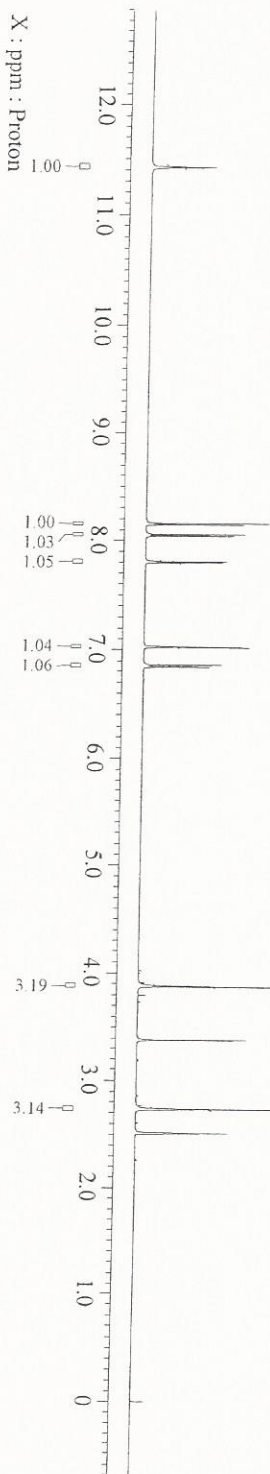
3.880

2.734

----- PROCESSING PARAMETERS -----
sawp (0.2 [Hz], 0.0 [s])
trapezoid (0 [s], 0 [s], 80 [s], 100 [s])
zerofill (1)
fft (1, TRUE, TRUE)
machinephase
ppm
reference (-0.04874 [ppm], 0 [ppm])

Instrument - NMR-500MHz (JEOL)
Instrument id - NMR-02
Author - rrajul338
Reviewed by - Ramesh Yadav
Solute - DMSO-D6
Spectrometer - JNM-ECZ500R/SI
Experiment - proton_1xp

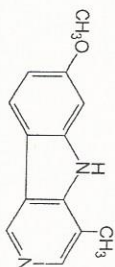
Acquisition Parameter
X Domain = 1H
X Offset = 7.0 [ppm]
X Sweep = 11.28158845 [kHz]
Scans = 16
Relaxation_Delay = 2 [s]



X : ppm : Proton



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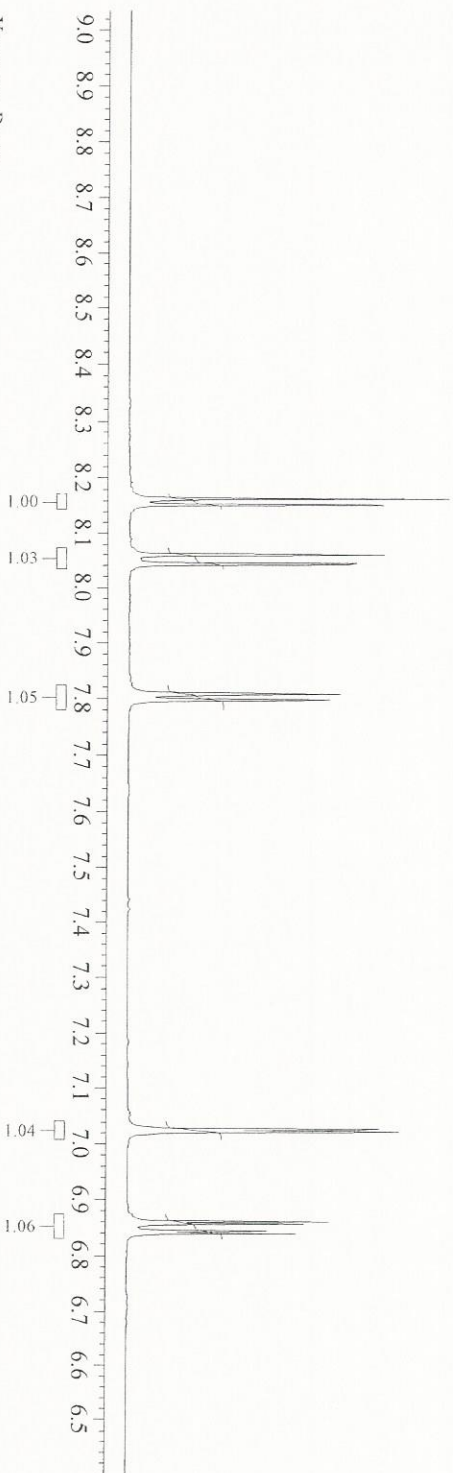
proton-1-2.jdf



----- PROCESSING PARAMETERS -----
sexp(0.2[H₂], 0.0[s])
trapzoid(0[%], 0[%], 80[%], 100[%])
zerofill(1)
fft(1, TRUE, TRUE)
machinphase
ppm
reference(-0.04874[ppm], 0[ppm])

Instrument - NMR-500MHz (JEOL)
Instrument id - NMR-02
Author - rraju1338
Reviewed by - Ramesh Yadav
Solvent - DMSO-D6
Spectrometer - JNM-ECZ500R/SI
Experiment - proton.jxp

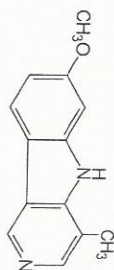
Acquisition Parameter
X_Domain = 1H
X_Offset = 7.0[ppm]
X_Sweep = 11.28158845[kHz]
Scans = 16
Relaxation_Delay = 2[s]



X : ppm : Proton



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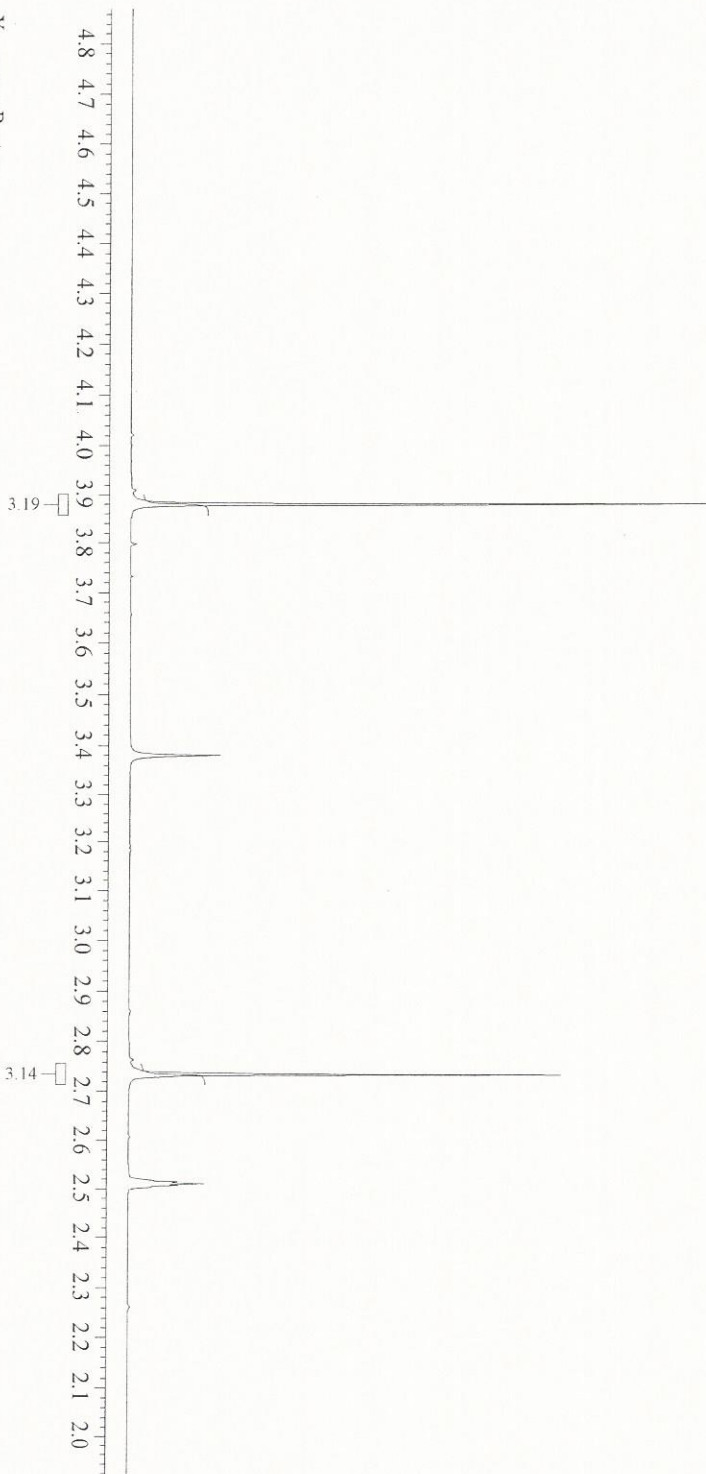
3.880

2.734

---- PROCESSING PARAMETERS ----
sexp(0.2[Hz], 0.0[s])
trapezoid(0[%], 0[%], 80[%], 100[%])
zerofill(1)
fft(1, TRUE, TRUE)
machinephase
ppm
Reference(-0.04874[ppm], 0[ppm])

Instrument - NMR-500MHz (JEOL)
Instrument id - NMR-02
Author - rraJul38
Reviewed by - Ramesh Yadav
Solvent - DMSO-D6
Spectrometer - JNM-ECZ500R/SI
Experiment - proton.jxp

Acquisition Parameter
X Domain = 1H
X Offset = 7.0[ppm]
X Sweep = 11.28158645[kHz]
Scans = 16
Relaxation_Delay = 2[s]



X : ppm : Proton