



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-006

Product Name: **HARMINE HYDROCHLORIDE DIHYDRATE**

Cas Number: [343-27-1]

Lot Number: 1311397

Chemical Formula: $C_{13}H_{12}N_2O \cdot HCl \cdot 2H_2O$

Molecular Weight: 284.74

Melting Point 260-262°C

Appearance: Dark cream powder

Solubility: Soluble in DMSO

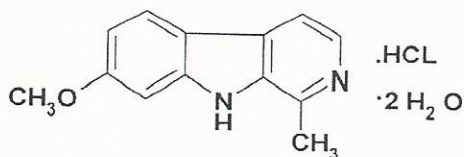
TLC: Chloroform:Methanol (9:1)

Moisture(KF): 1.2%

NMR Spectrum: Enclosed

Storage: Cool dry place

Purity(HPLC) : 99.14%





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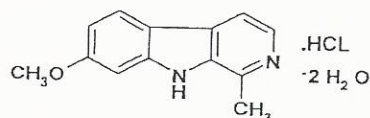
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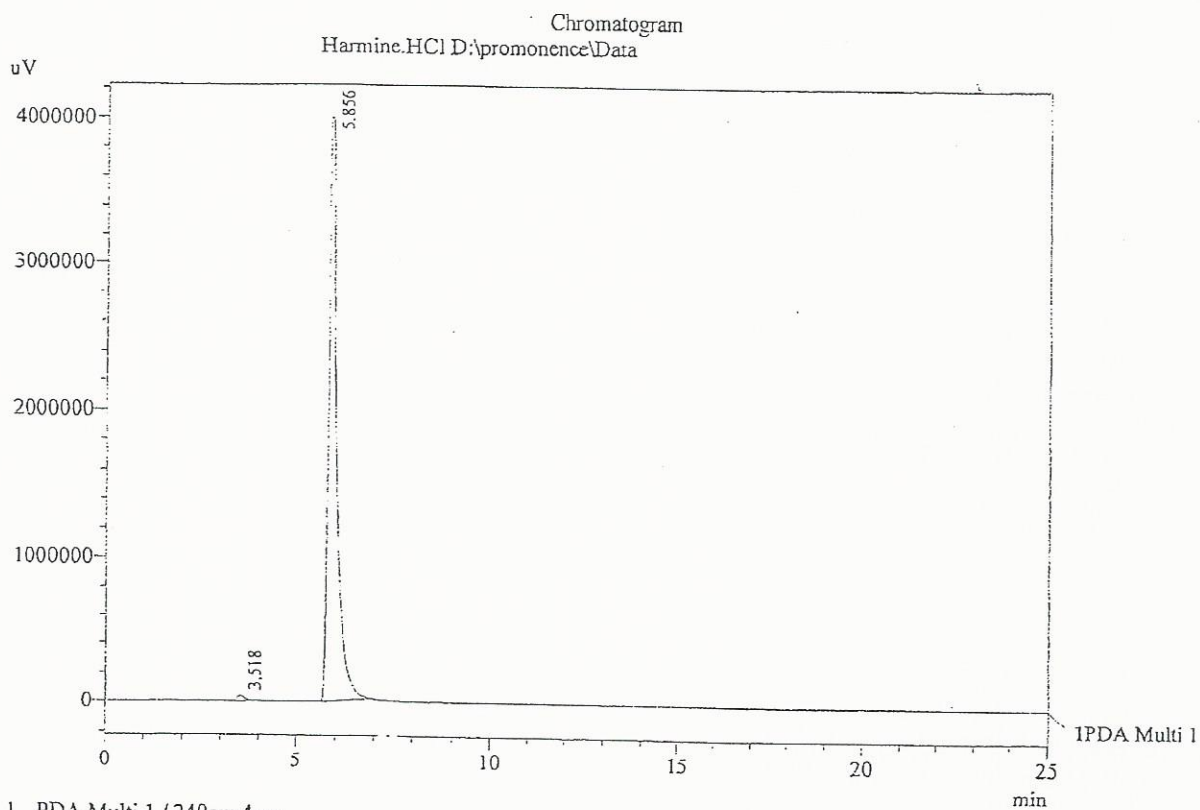
HPLC ANALYSIS

Acquired by : Sanjeev
Sample Name : Harmine.HCl
Sample ID : 850 gms (Uniform Lot)
Injection Volume : 20 uL
Data Filename : 290113F.lcd
Method Filename : Isocratic Method.lcm

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Lot No.: 1311397



Column : Inertsil ODS, (250mm x4.6mm 5.0μ)
Flow : 1.500 mL/min.
Mobile Phase : Phosphate buffer:Acetonitrile(550:450)



PeakTable

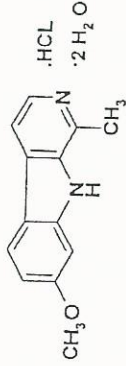
PDA Ch1 240nm 4nm

Peak#	Name	Ret. Time	Area	Area %	Relative Retention Time
1	Harmaline.HCl	3.518	507551	0.86	0.60
2	Harmine.HCl	5.856	58786970	99.14	1.00
Total			59294521	100.00	



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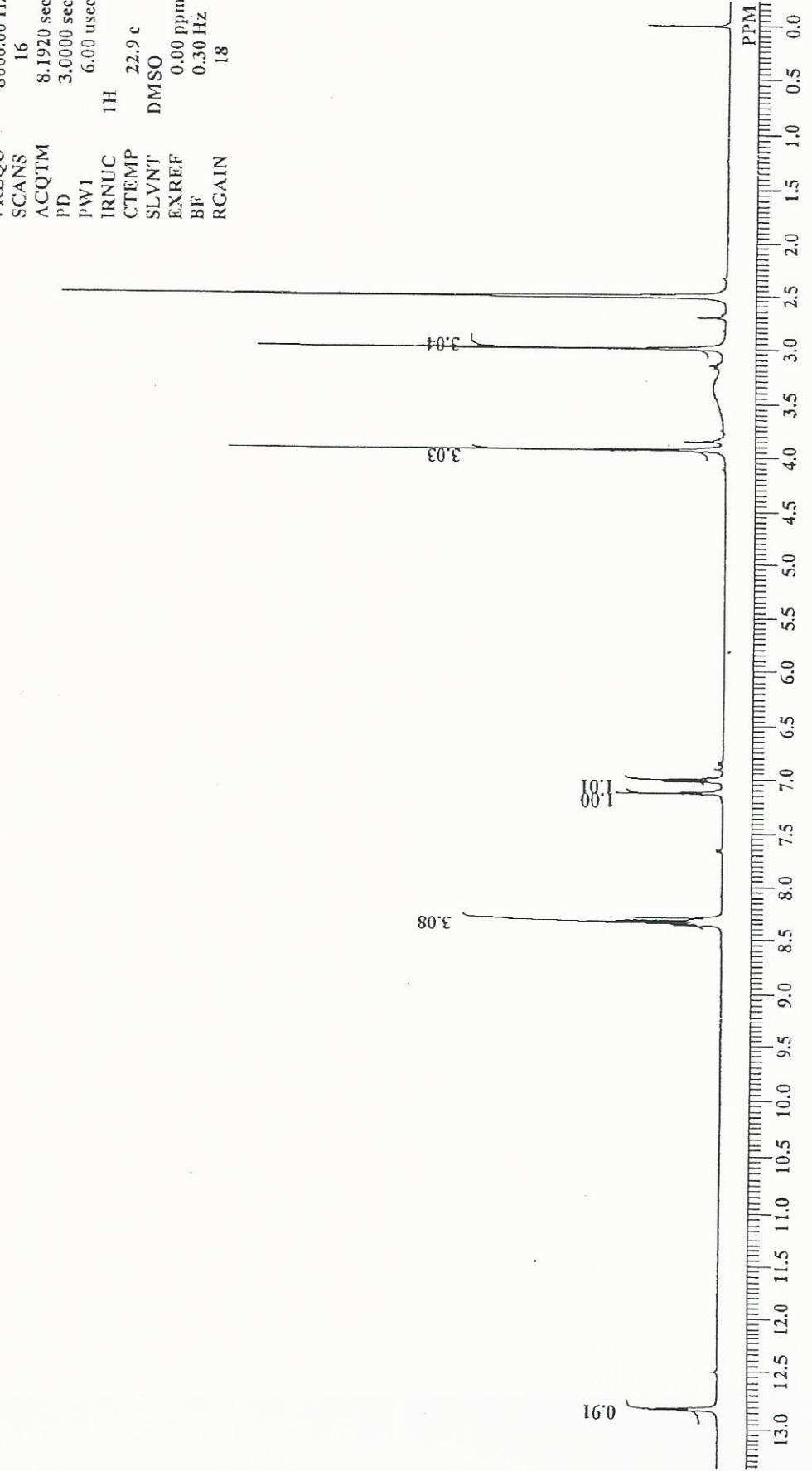


HRM(815g) 1H NMR DMSO-d6

Analysed By : MSR

DFILE HRM(815g) 1H.als
COMINT HRM(815g) 1H NMR DMS

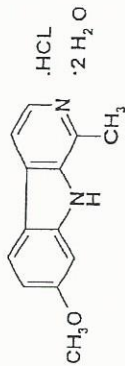
OBNUC 1H
EXMOD NON
OBFRQ 399.65 MHz
OBSET 124.00 KHz
OBFIN 10500.00 Hz
POINT 65536
FREQU 8000.00 Hz
SCANS 16
ACQTM 8.1920 sec
PD 3.0000 sec
PWI 6.00 usec
IRNUC 1H
CTEMP 22.9 c
SLVNT DMSO
EXREF 0.00 ppm
BF 0.30 Hz
RGAIN 18





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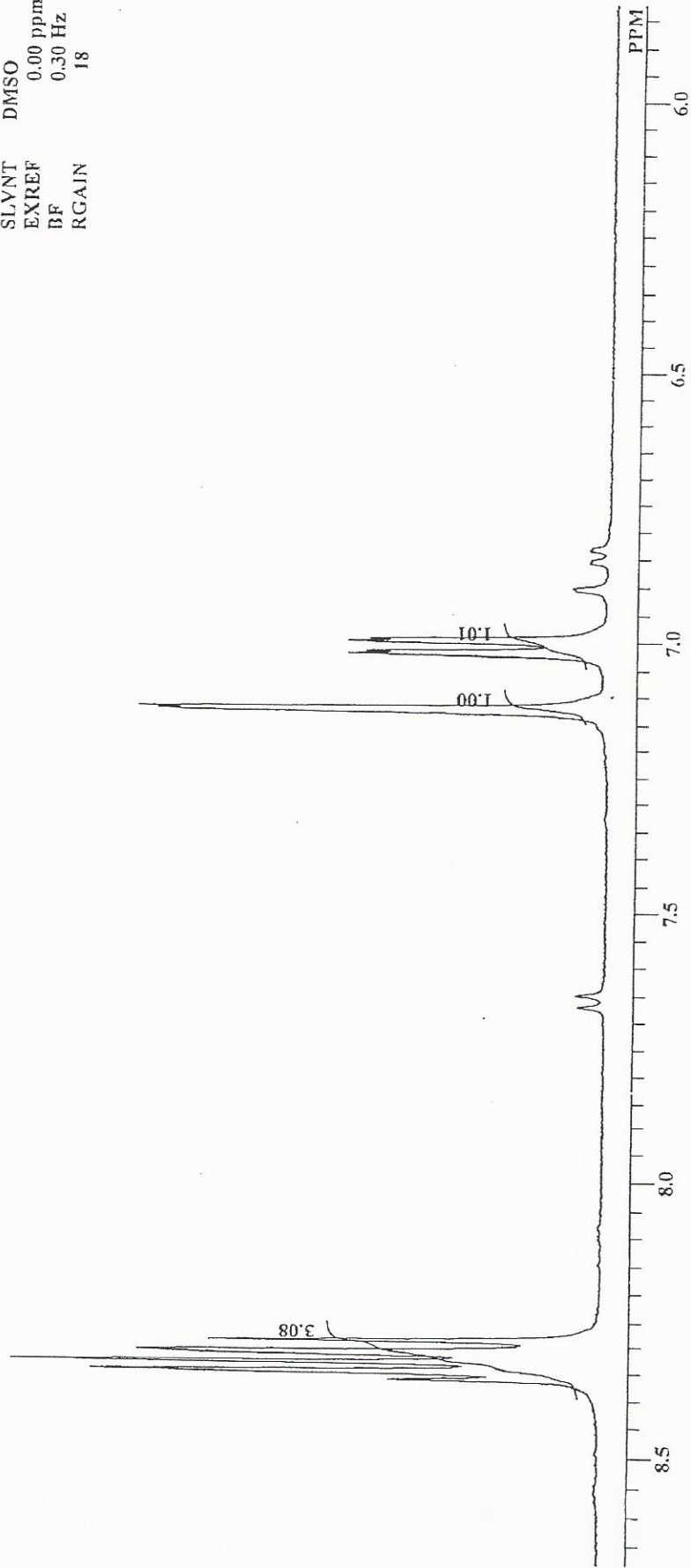
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¹H NMR (815g) 1H NMR DMSO-d₆

Analysed By : MSR

DFILE HRM(815g) 1H.nls
COMNT HRM(815g) 1H NMR DMS
OBNUC 1H
EXMOD NON
OBFRQ 399.65 MHz
OBSET 124.00 KHz
OBFIN 10500.00 Hz
POINT 65536
FREQU 8000.00 Hz
SCANS 16
ACQTM 8.1920 sec
PD 3.0000 sec
PW1 6.00 usec
IRNUC 1H 22.9 c
CTEMP DMSO
SLVNT DMSO
EXREF 0.00 ppm
BF 0.30 Hz
RGAIN 18

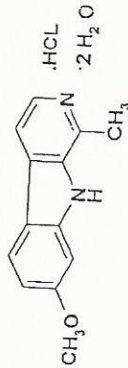




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Sample Information
Sample Name : HRM
B.No : -
Data File : HRM.lcd
Method File : Test1 (ESI).lcm
Acquired by : KKiran



MS Spectrum Graph

Probe : ESI
Polarity:Pos

