



# 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

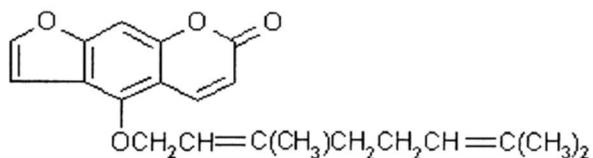
website: [www.indofinechemical.com](http://www.indofinechemical.com)

e-mail: [chemical@indofinechemical.com](mailto:chemical@indofinechemical.com)

## CERTIFICATE OF ANALYSIS

**Cat No.: 19-335**

<u>Product:</u>	<b>BERGAMOTIN</b> (5-Geranyloxypsoralen)
<u>CAS Number:</u>	[7380-40-7]
<u>Lot Number:</u>	1203200
<u>Chemical Formula:</u>	C <sub>21</sub> H <sub>22</sub> O <sub>4</sub>
<u>Molecular Weight:</u>	338.40
<u>Melting Point:</u>	49-51°C
<u>Appearance:</u>	White powder
<u>Water Content:</u>	0.32%
<u>Solubility:</u>	Soluble in Chloroform
<u>Storage:</u>	Store at 2-8°C
<u>Purity:</u>	99.6%



19-335



# INDOFINE Chemical Company, Inc.

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

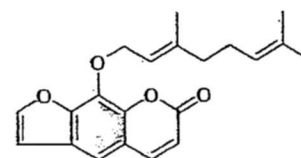
Phone: (908) 359-6778 • FAX: (908) 359-1179

website: [www.indofinechemical.com](http://www.indofinechemical.com)

e-mail: [chemical@indofinechemical.com](mailto:chemical@indofinechemical.com)

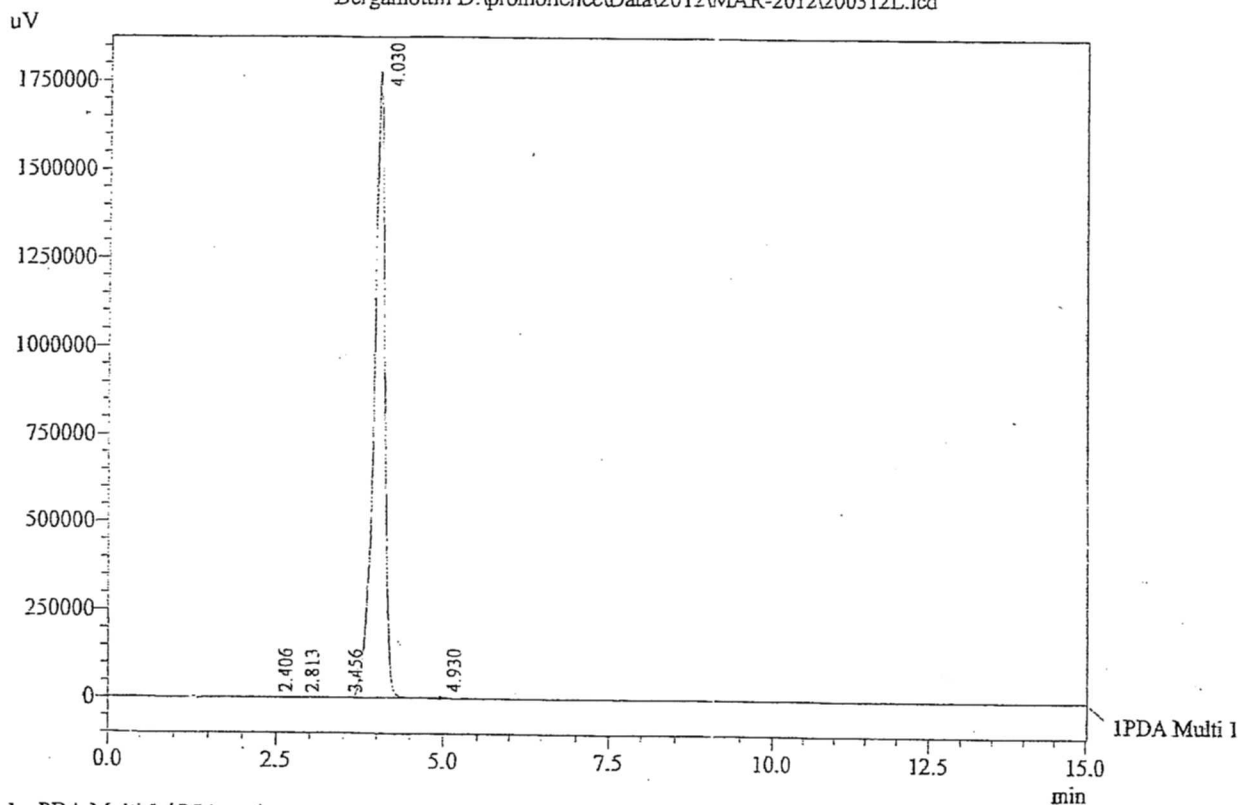
## HPLC ANALYSIS

Acquired by	: Sanjeev	Catalog No.:	19-335
Sample Name	: Bergamottin	Product name:	Bergamottin
Sample ID	: 70 gms Lot	Lot No.:	1203200
Injection Volume	: 20 µL		
Data Filename	: 200312L.lcd		
Method Filename	: Bereamottin.lcm		
Report Filename			
Date Acquired	: 3/20/2012 3:07:24 PM		
Data Processed	: 3/21/2012 11:10:40 AM		
Column	: Inertsil ODS-3V, (150mm x4.6mm 5.0µ)		
Flow	: 1.200 mL/min.		
Mobile Phase	: A(10% water) B(90% of Acetonitrile)		



BERGAMOTTIN

Chromatogram  
Bergamottin D:\promonence\Data\2012\MAR-2012\200312L.lcd



1 PDA Multi 1 / 254nm 4nm

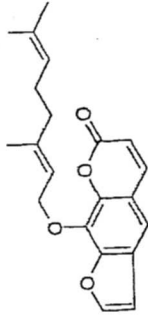
PeakTable

PDA Ch1 254nm 4nm

Peak#	Name	Ret. Time	Area	Area %	Relative Retention Time
1	RT:2.406	2.406	5213	0.03	0.60
2	RT:2.813	2.813	4188	0.02	0.70
3	RT:3.456	3.456	3662	0.02	0.86
4	Bergamottin	4.030	19493122	99.68	1.00
5	RT:4.930	4.930	48658	0.25	1.22
Total			19554843	100.00	

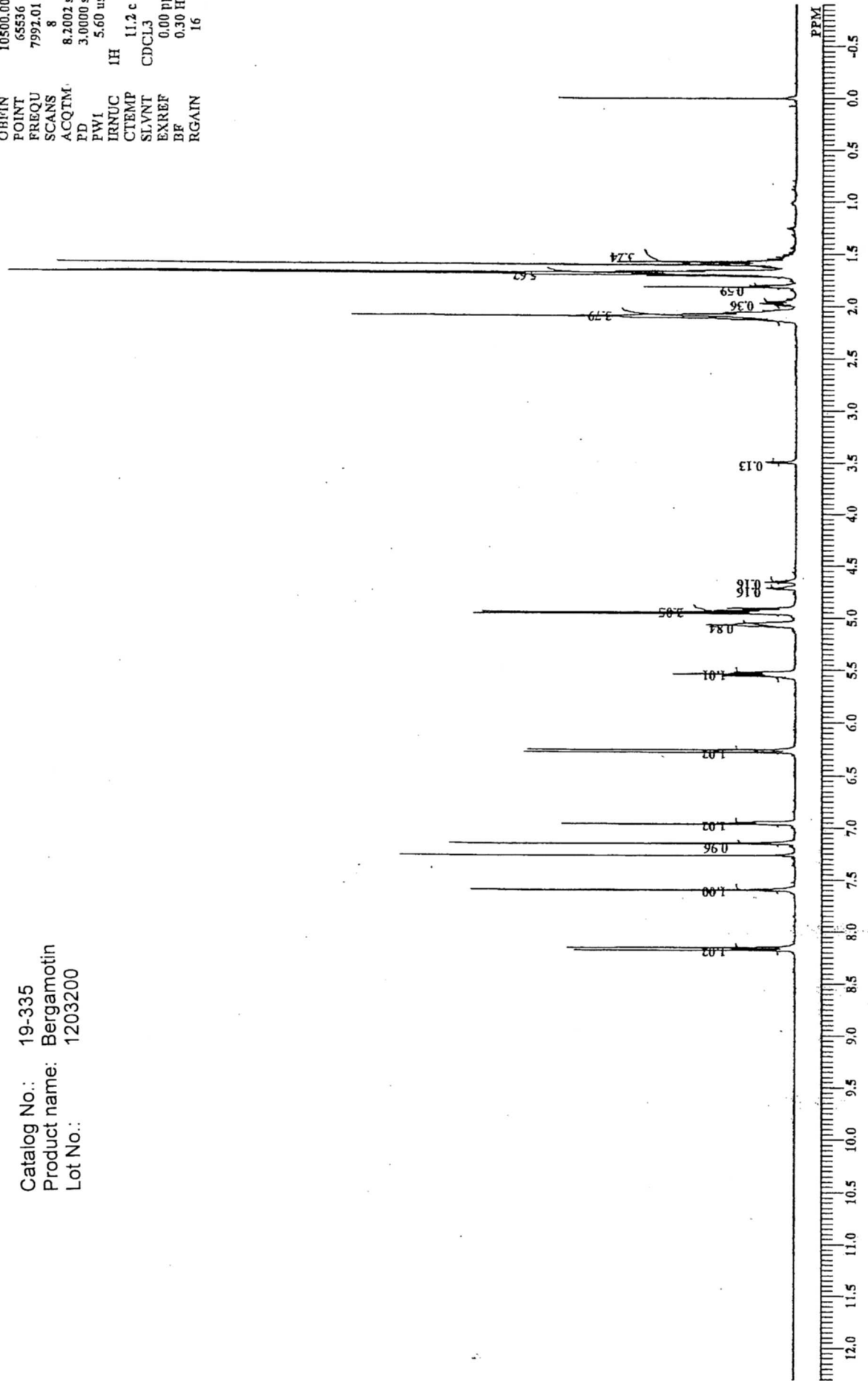
BYGT 1H NMR CDC13

Catalog No.: 19-335  
Product name: Bergamotin  
Lot No.: 1203200



BERGAMOTIN

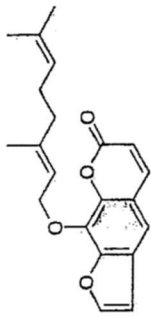
DFILE BVGT 1H.nls  
COMNT BVGT 1H NMR CDC13  
DATIM Tue Mar 20 19:28:51 2012  
OBNUC 1H  
EXMOD NON  
OBERQ 399.65 MHz  
OBSET 124.00 KHz  
OBFIN 10500.00 Hz  
POINT 65536  
FREQU 7992.01 Hz  
SCANS 8  
ACQTM 8.2002 sec  
PD 3.0000 sec  
PWI 5.60 usec  
IRNUC 1H  
CTEMP 11.2 c  
SLVNT CDCL3  
EXREF 0.00 ppm  
BF 0.30 Hz  
RGAIN 16



BYGT 1H NMR CDC13

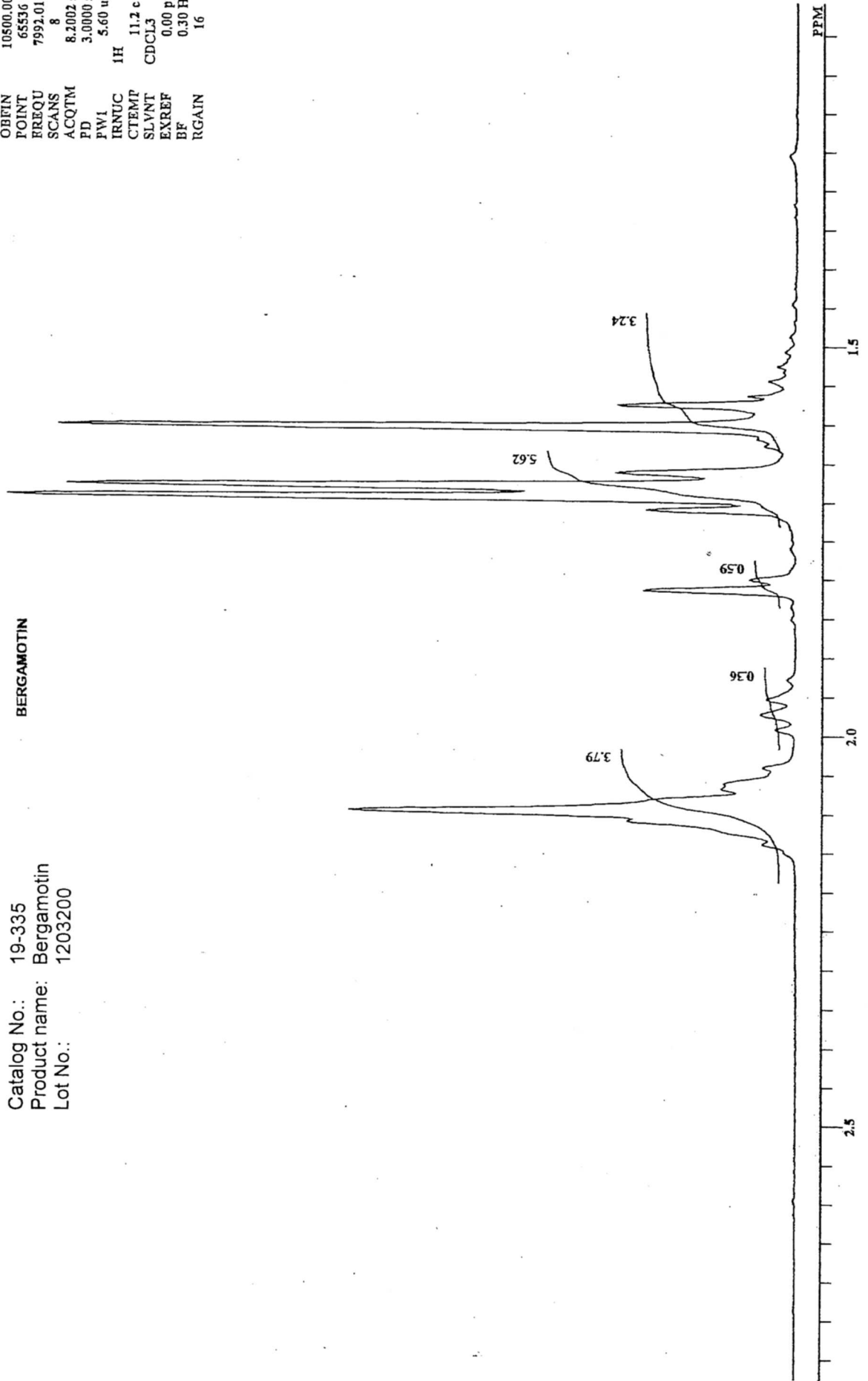
BYGT 1H NMR CDC13  
Tue Mar 20 19:28:51 2012

DFILE BYGT 1H.nls  
COMNT BYGT 1H NMR CDC13  
DATIM Tue Mar 20 19:28:51 2012  
OBNUC 1H  
EXMOD NON  
OBFRQ 399.65 MHz  
OBSET 124.00 KHz  
OBFIN 10500.00 Hz  
POINT 65536  
FREQU 7992.01 Hz  
SCANS 8  
ACQTM 8.2002 sec  
PD 3.0000 sec  
PW1 5.60 usec  
IRNUC 1H  
CTEMP 11.2 c  
SLVNT CDCL3  
EXREF 0.00 ppm  
BF 0.30 Hz  
RGAIN 16

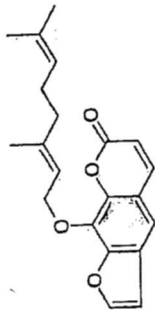


BERGAMOTIN

Catalog No.: 19-335  
Product name: Bergamotin  
Lot No.: 1203200



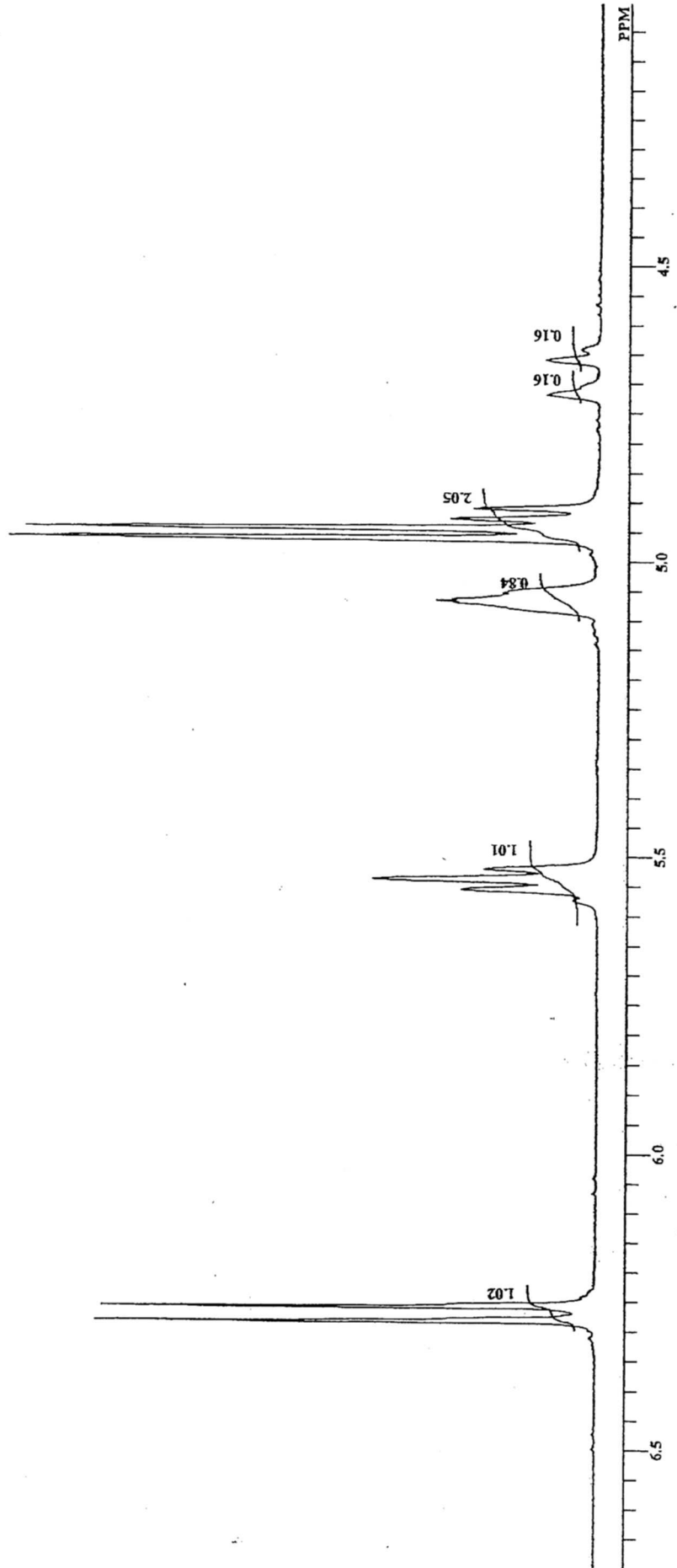
BYGT 1H NMR CDCl3



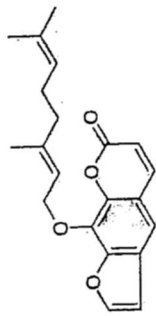
BERGAMOTIN

Catalog No.: 19-335  
Product name: Bergamotin  
Lot No.: 1203200

DFILE BYGT 1H.rls  
COMNT BYGT 1H NMR CDCl3  
DATIM The Mar 20 19:28:51 2012  
OBNUC 1H  
EXMOD NON  
OBFRQ 399.65 MHz  
OBSET 124.00 KHz  
OBFIN 10500.00 Hz  
POINT 65536  
FREQU 7992.01 Hz  
SCANS 8  
ACQTM 8.2002 sec  
PD 3.0000 sec  
PW1 5.60 usec  
IRNUC 1H  
CTEMP 11.2 c  
SLVNT CDCl3  
EXREF 0.00 ppm  
BF 0.30 Hz  
RGAIN 16



BVGT 1H NMR CDCl3



BERGAMOTIN

Catalog No.: 19-335  
Product name: Bergamotol  
Lot No.: 1203200

DFILE BVGT 1H.n1s  
COMNT BVGT 1H NMR CDCl3  
DATIM Tue Mar 20 19:28:51 2012  
OBNUC 1H  
EXMOD NON  
OBFREQ 399.65 MHz  
OBSET 124.00 KHz  
OBFIN 10500.00 Hz  
POINT 65536  
FREQU 7992.01 Hz  
SCANS 8  
ACQTM 8.2002 sec  
PD 3.0000 sec  
PWI 5.60 usec  
IRNUC 1H  
CTEMP 11.2 c  
SLVNT CDCl3  
EXREF 0.00 ppm  
BF 0.30 Hz  
RGAIN 16

