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**LAMPIRAN I**  
**DETERMINASI TANAMAN**



**1. Tanaman Pagoda**

	<b>KEMENTERIAN RISET, TEKNOLOGI DAN PENDIDIKAN TINGGI</b> <b>UNIVERSITAS NEGERI MAKASSAR</b> <b>FAKULTAS MATEMATIKA DAN ILMU PENGETAHUAN ALAM</b> <b>LABORATORIUM BIOLOGI</b>
Alamat : Kampus UNM Parang Tambung Jl. Dg. Tata Raya Telp (0411) 840610 Makassar	
No : 046/SKAP/LAB.BIOLOGI/IV/2018	25 April 2019
Lamp : -	
Hal : Hasil Identifikasi Tanaman	
 Kepada Yth. <b>Budiman Yasir (N012171029)</b> Fakultas Farmasi Universitas Hasanuddin	
 Dengan Hormat, Bersama ini, kami sampaikan hasil identifikasi tanaman Kembang Pagoda ( <i>Clerodendrum paniculatum</i> L.) yang saudara kirimkan. Identifikasi dilakukan oleh staf peneliti laboratorium Botani Jurusan Biologi FMIPA UNM dengan hasil sebagai berikut:	
Kingdom : Plantae	
Divisi : Magnoliophyta	
Kelas : Magnoliopsida	
Ordo : Lamiales	
Famili : Verbenaceae	
Genus : Clerodendrum	
Spesies : <i>Clerodendrum paniculatum</i> L.	
Kunci determinasi : 1b – 2b – 3b – 4b – 6b – 7b – 9b – 10b – 11b – 12b – 13b – 14b – 7b – 9a – 41b – 42b – 43a – 44b – 45b – 48a – Fam 109. Verbenaceae – 1b – 2b – 3b – 6b – 7b – 8b – 9b – Clerodendrum – <i>Clerodendrum paniculatum</i> L.	
Sumber pustaka :	
1. <a href="https://plants.usda.gov/core/profile?symbol=CLPA20">https://plants.usda.gov/core/profile?symbol=CLPA20</a>	
2. <a href="https://indiabiodiversity.org/species/show/266140">https://indiabiodiversity.org/species/show/266140</a>	
3. <a href="https://www.gbif.org/species/7347381">https://www.gbif.org/species/7347381</a>	
4. <a href="http://powo.science.kew.org/taxon/urn:lsid:ipni.org:names:862301-1">http://powo.science.kew.org/taxon/urn:lsid:ipni.org:names:862301-1</a>	
5. Steenis, Van C.G.G.J. 2013. Flora. PT. Balai Pustaka, Jakarta	
Demikian untuk diketahui dan dipergunakan sebagaimana mestinya.	
 Kepala Laboratorium Biologi FMIPA UNM Dr. Al Mufida, S.Si., M.Si NIP. 1970526 199802 2 001	

## 2. Tanaman Maman Ungu

	<p style="text-align: center;"><b>KEMENTERIAN RISET, TEKNOLOGI DAN PENDIDIKAN TINGGI</b> <b>UNIVERSITAS NEGERI MAKASSAR</b> <b>FAKULTAS MATEMATIKA DAN ILMU PENGETAHUAN ALAM</b> <b>LABORATORIUM BIOLOGI</b></p> <p style="text-align: center;">Alamat : Kampus UNM Parang Tambung Jl. Dg. Tata Raya Telp (0411) 840610 Makassar</p>
No : 047/SKAP/LAB.BIOLOGI/IV/2018	25 April 2019
Lamp : -	
Hal : Hasil Identifikasi Tanaman	
<p>Kepada Yth. <b>Budiman Yasir (N012171029)</b> Fakultas Farmasi Universitas Hasanuddin</p>	
<p>Dengan Hormat, Bersama ini, kami sampaikan hasil identifikasi tanaman Maman Ungu (<i>Cleome rutidospermae</i> D.C.) yang saudara kirimkan. Identifikasi dilakukan oleh staf peneliti laboratorium Botani Jurusan Biologi FMIPA UNM dengan hasil sebagai berikut:</p>	
Kingdom : Plantae	
Divisi : Magnoliophyta	
Kelas : Magnoliopsida	
Ordo : Capparales	
Famili : Capparaceae	
Genus : Cleome	
Spesies : <i>Cleome rutidospermae</i> D.C.	
<p>Kunci determinasi : 1b – 2b – 3b – 4b – 6b – 7b – 9b – 10b – 11b – 12b – 13b – 14a – 15b – 197a – 198b – 200b – 201B – 202b – 203b – 204b – 205a – Fam. Capparidaceae – 1a - Cleome - <i>Cleome rutidospermae</i></p>	
<p>Sumber pustaka :</p> <ol style="list-style-type: none"><li>1. <a href="http://plantamor.com/species/info/cleome/rutidosperma">http://plantamor.com/species/info/cleome/rutidosperma</a></li><li>2. <a href="https://plants.usda.gov/core/profile?symbol=CLRU3">https://plants.usda.gov/core/profile?symbol=CLRU3</a></li><li>3. <a href="https://www.cabi.org/isc/datasheet/14044">https://www.cabi.org/isc/datasheet/14044</a></li><li>4. <a href="https://indiabiodiversity.org/species/show/229206">https://indiabiodiversity.org/species/show/229206</a></li><li>5. Steenis, Van C.G.G.J. 2013. Flora. PT. Balai Pustaka, Jakarta</li></ol>	
<p style="text-align: center;">Demikian untuk diketahui dan dipergunakan sebagaimana mestinya.</p>	
<p>Kepala Laboratorium Biologi FMIPA UNM  Dr. A. Muisa, S.Si., M.Si NIP. 19705261998022001</p>	

### 3. Tanaman Pare

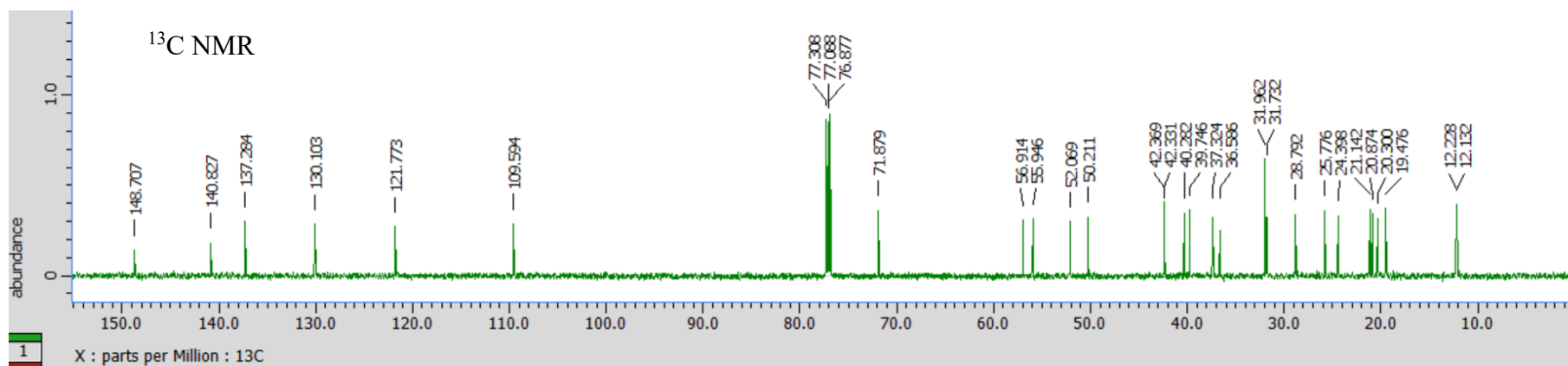
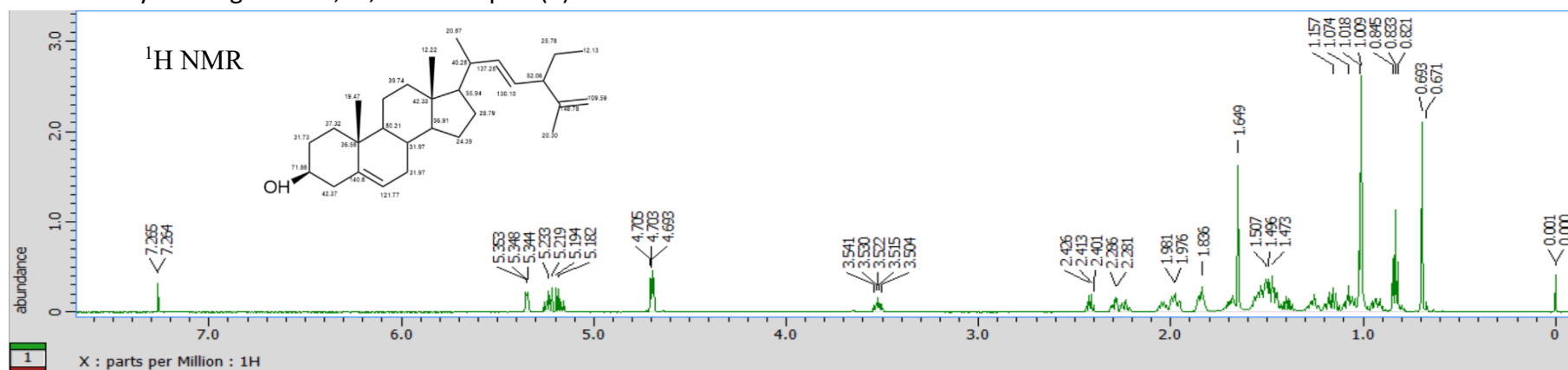
	<b>KEMENTERIAN RISET, TEKNOLOGI DAN PENDIDIKAN TINGGI</b> <b>UNIVERSITAS NEGERI MAKASSAR</b> <b>FAKULTAS MATEMATIKA DAN ILMU PENGETAHUAN ALAM</b> <b>LABORATORIUM BIOLOGI</b>
	Alamat : Kampus UNM Parang Tambung Jl. Dg. Tata Raya Telp (0411) 840610 Makassar
No : 045/SKAP/LAB.BIOLOGI/IV/2018	25April 2019
Lamp : -	
Hal : Hasil Identifikasi Tanaman	
Kepada Yth. <b>Budiman Yasir (N012171029)</b> Fakultas Farmasi Universitas Hasanuddin	
Dengan Hormat, Bersama ini, kami sampaikan hasil identifikasi tanaman Pare ( <i>Momordica charantia</i> L.) yang saudara kirimkan. Identifikasi dilakukan oleh staf peneliti laboratorium Botani Jurusan Biologi FMIPA UNM dengan hasil sebagai berikut:	
Kingdom : Plantae	
Divisi : Magnoliophyta	
Kelas : Magnoliopsida	
Ordo : Violales	
Famili : Cucurbitaceae	
Genus : Momordica	
Spesies : <i>Momordica charantia</i> L.	
Kunci determinasi : 1b – 2a – 27a – 28b – 29b – 30b – 31b – Cucurbitaceae – 1a – 2b – 3b – Momordica – <i>Momordica charantia</i> L.	
Sumber pustaka :	
1. <a href="http://plantamor.com/species/info/momordica/charantia">http://plantamor.com/species/info/momordica/charantia</a>	
2. <a href="https://plants.usda.gov/java/ClassificationServlet?source=profile&amp;symbol=MOCH2&amp;display=31">https://plants.usda.gov/java/ClassificationServlet?source=profile&amp;symbol=MOCH2&amp;display=31</a>	
3. <a href="https://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&amp;search_value=22399#null">https://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&amp;search_value=22399#null</a>	
4. <a href="https://www.cabi.org/isc/datasheet/34678">https://www.cabi.org/isc/datasheet/34678</a>	
5. <a href="http://florida.plantatlas.usf.edu/Plant.aspx?id=1390">http://florida.plantatlas.usf.edu/Plant.aspx?id=1390</a>	
6. Steenis, Van C.G.G.J. 2013. Flora. PT. Balai Pustaka, Jakarta	
Demikian untuk diketahui dan dipergunakan sebagaimana mestinya.	
	

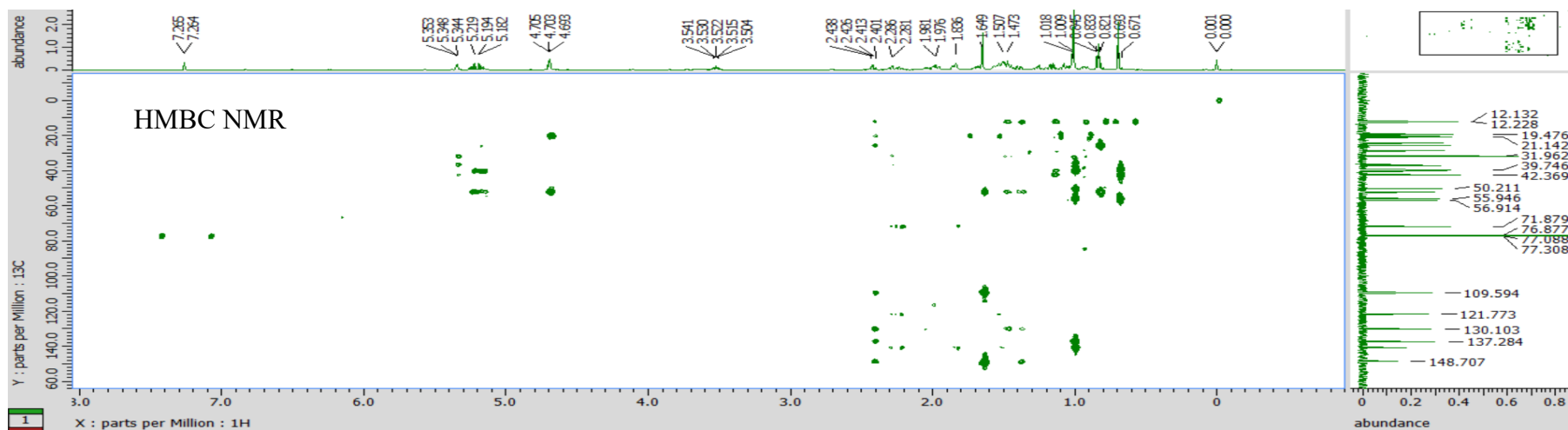
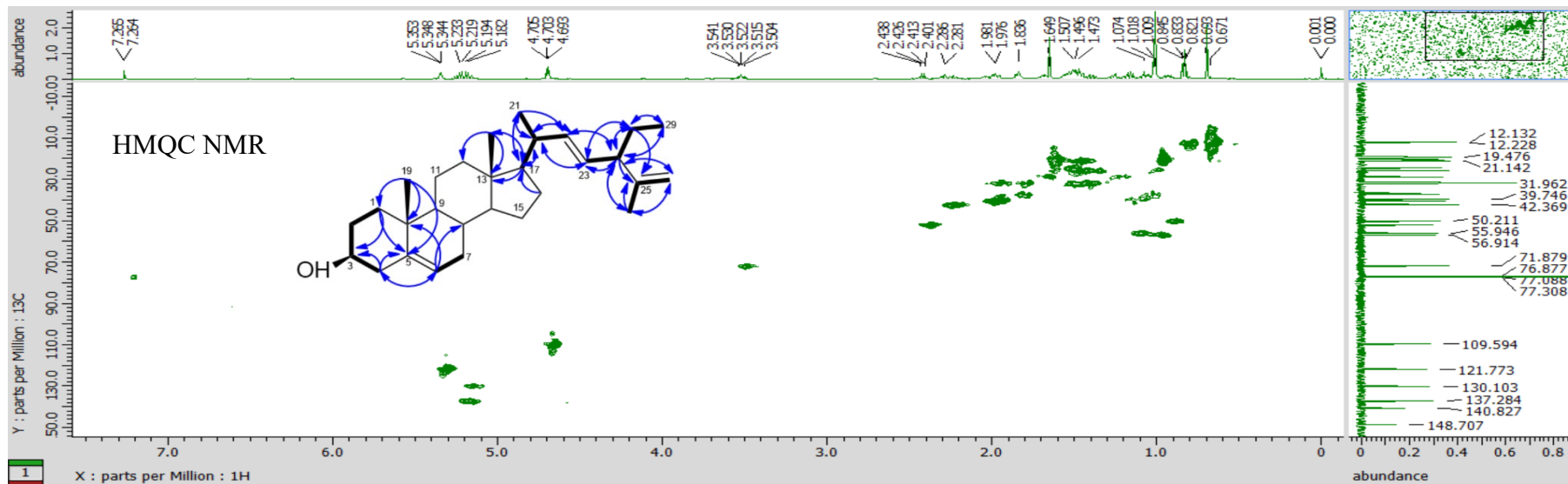


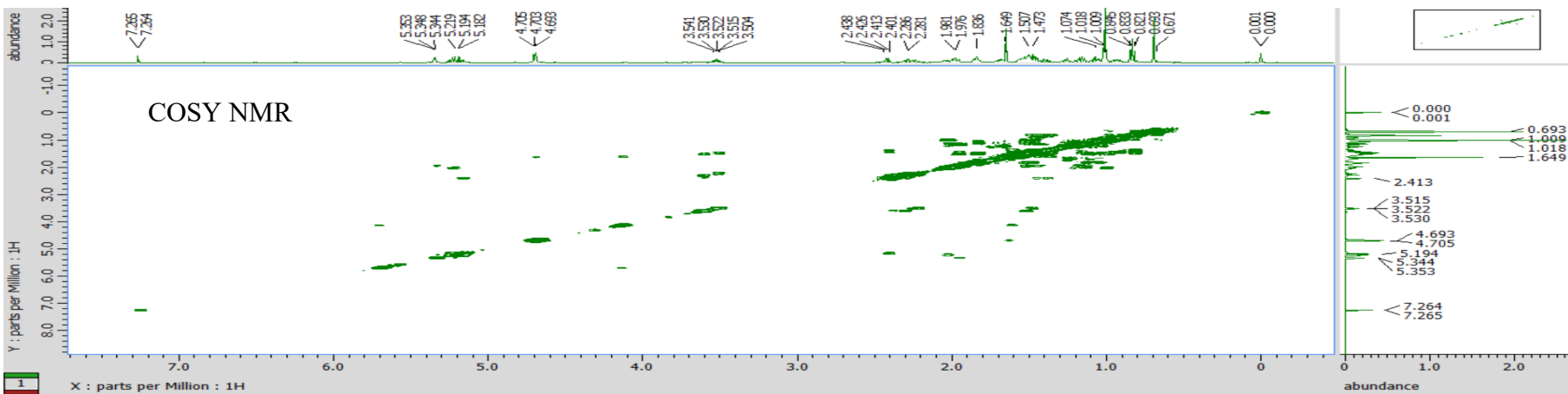
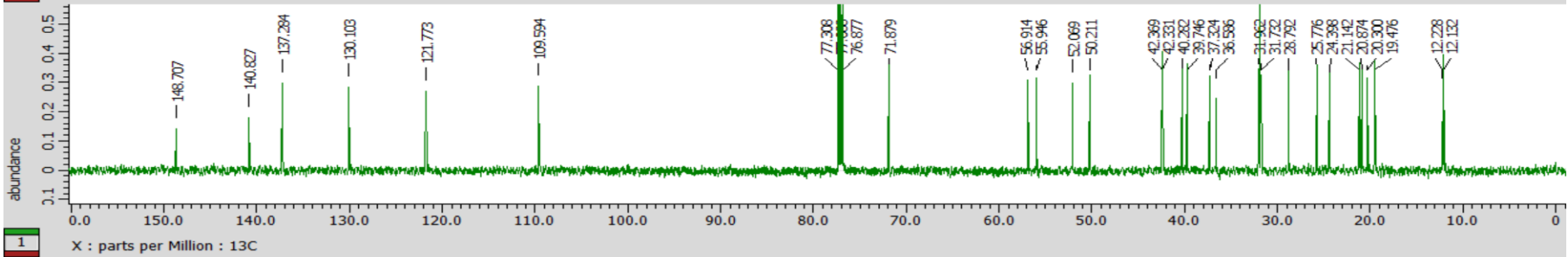
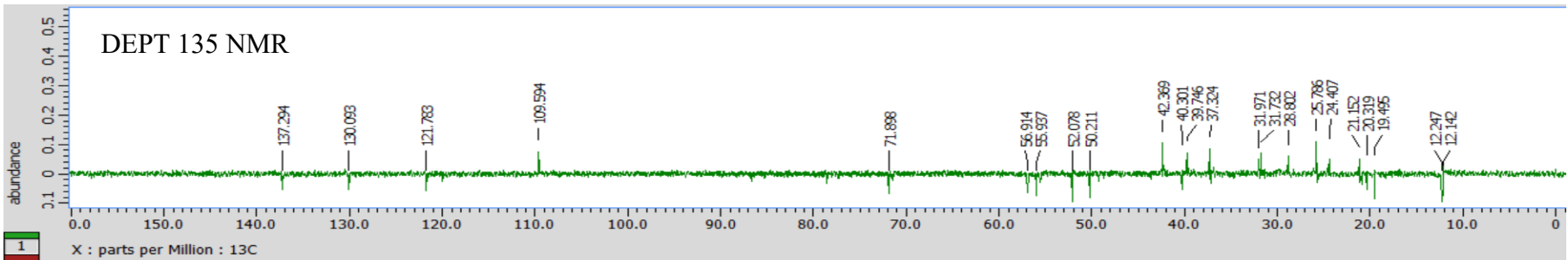
## LAMPIRAN II

### KROMATOGRAM 1D dan 2D NMR

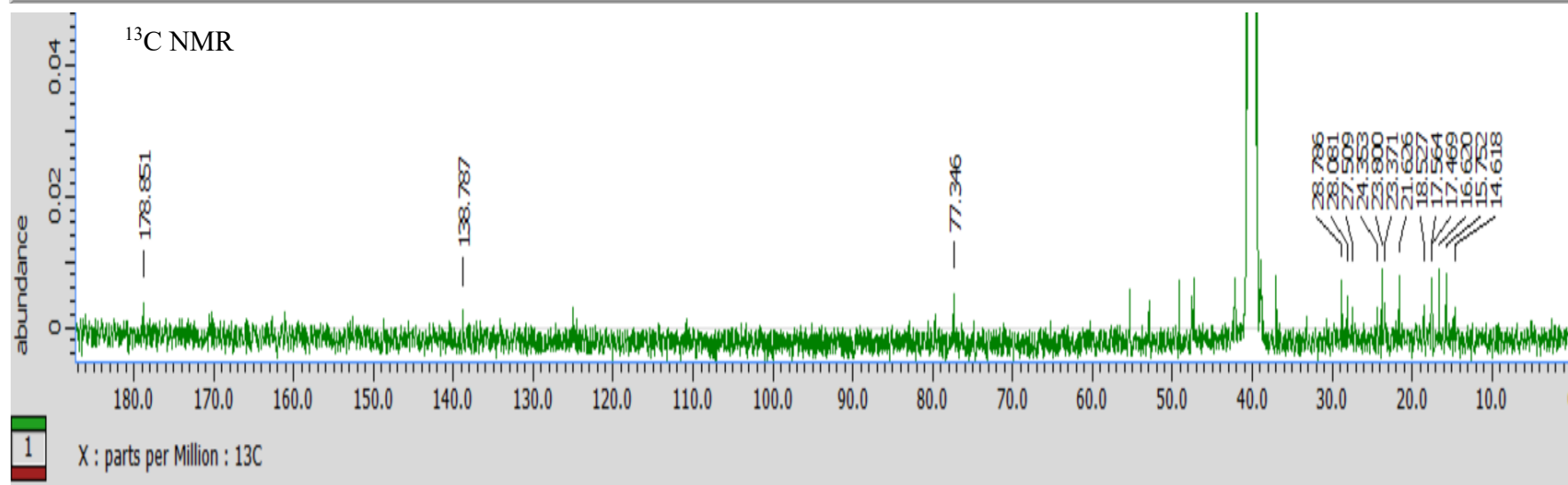
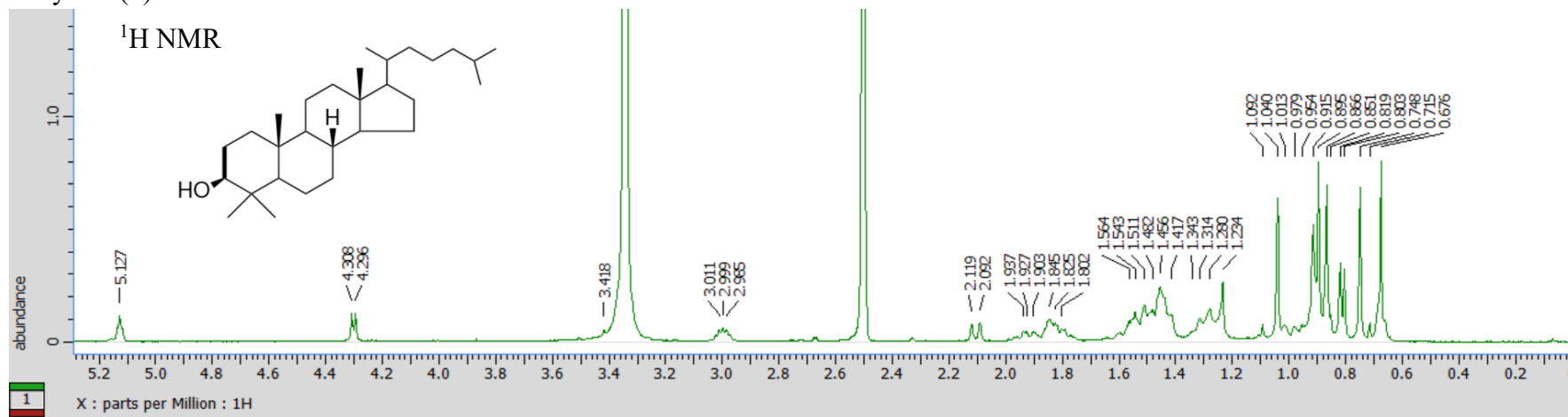
#### 1. Senyawa stigmasta-5,22,25-trien-3 $\beta$ -ol (1)

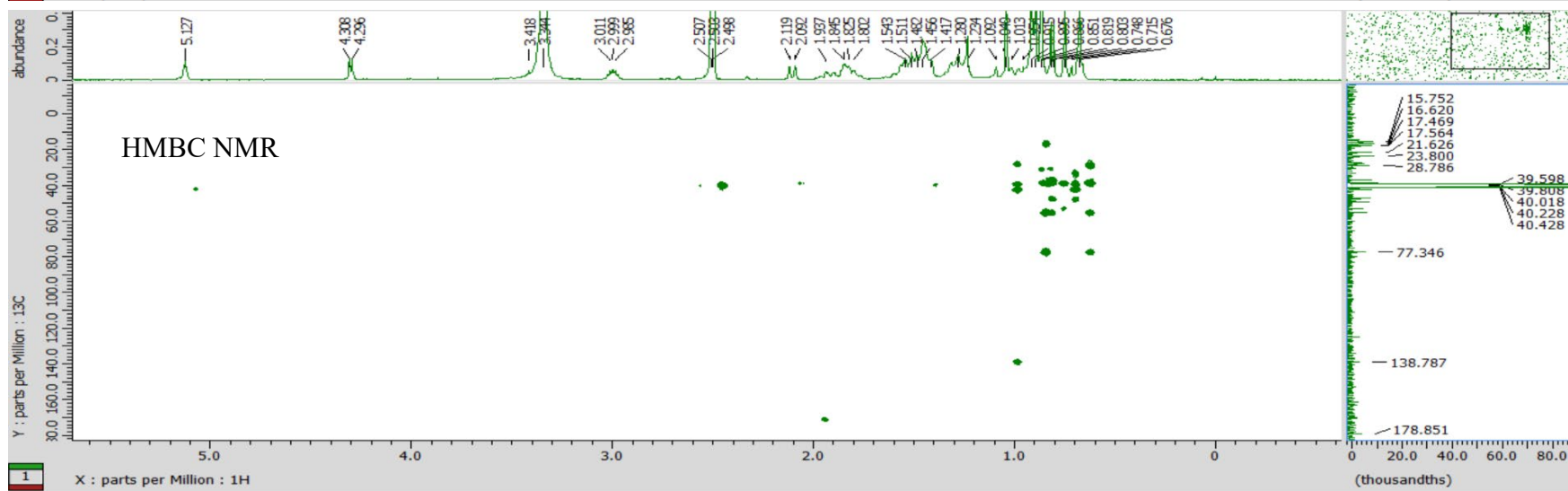
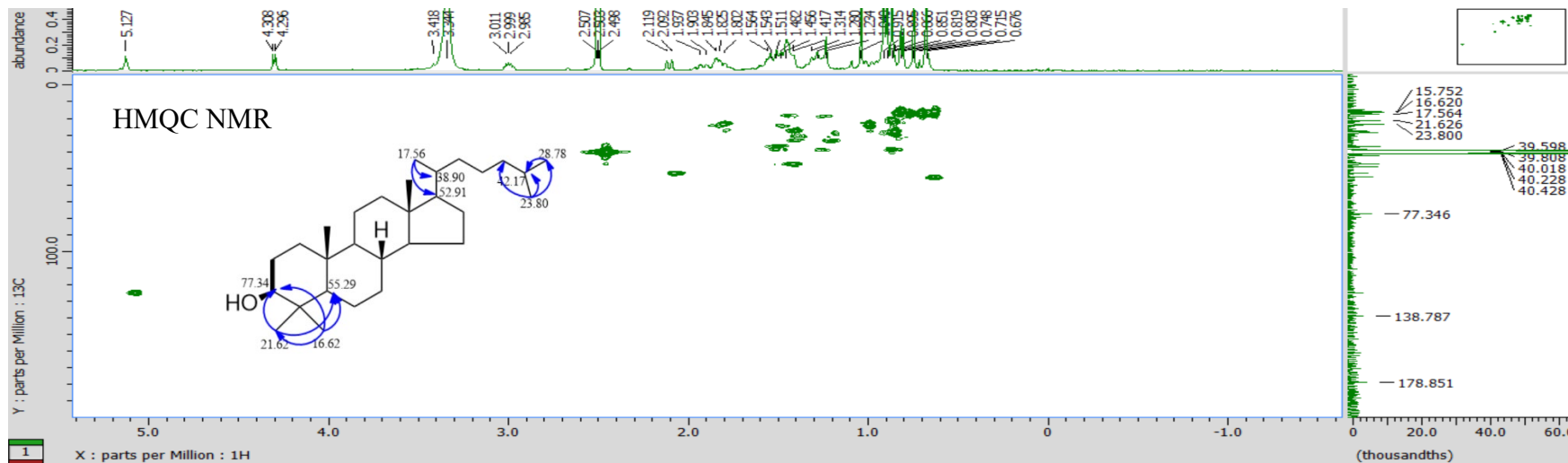


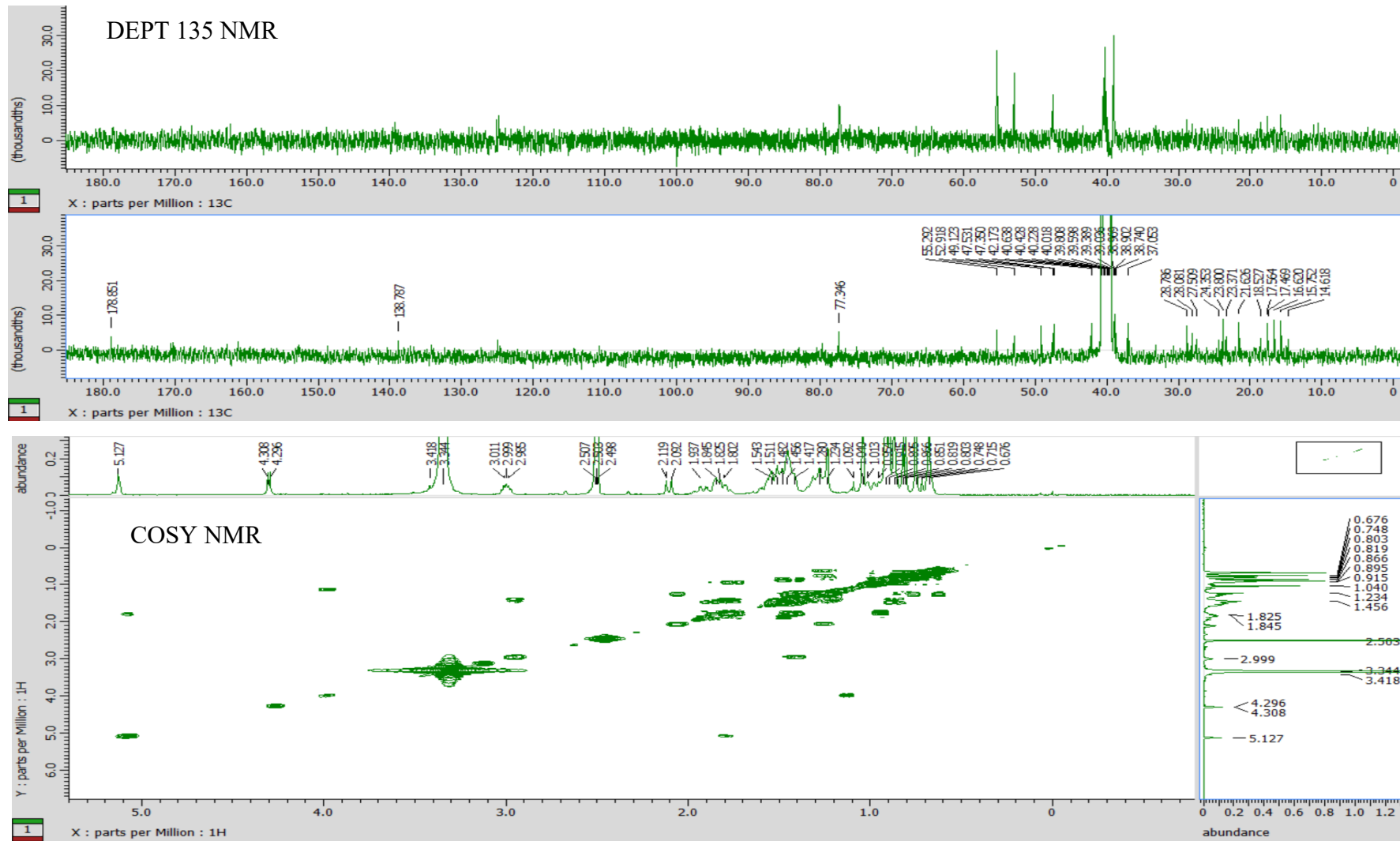




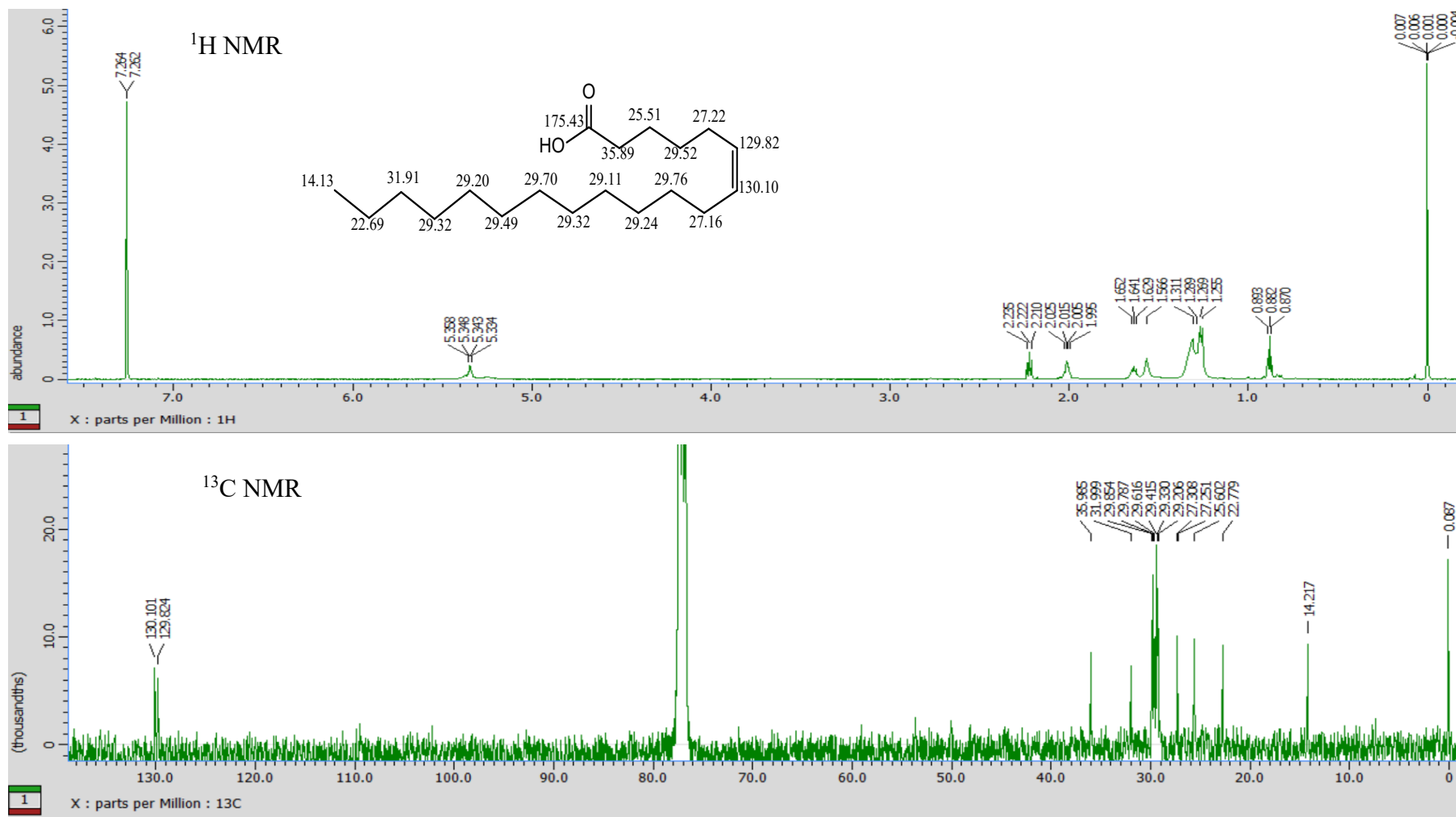
2. Senyawa (2)

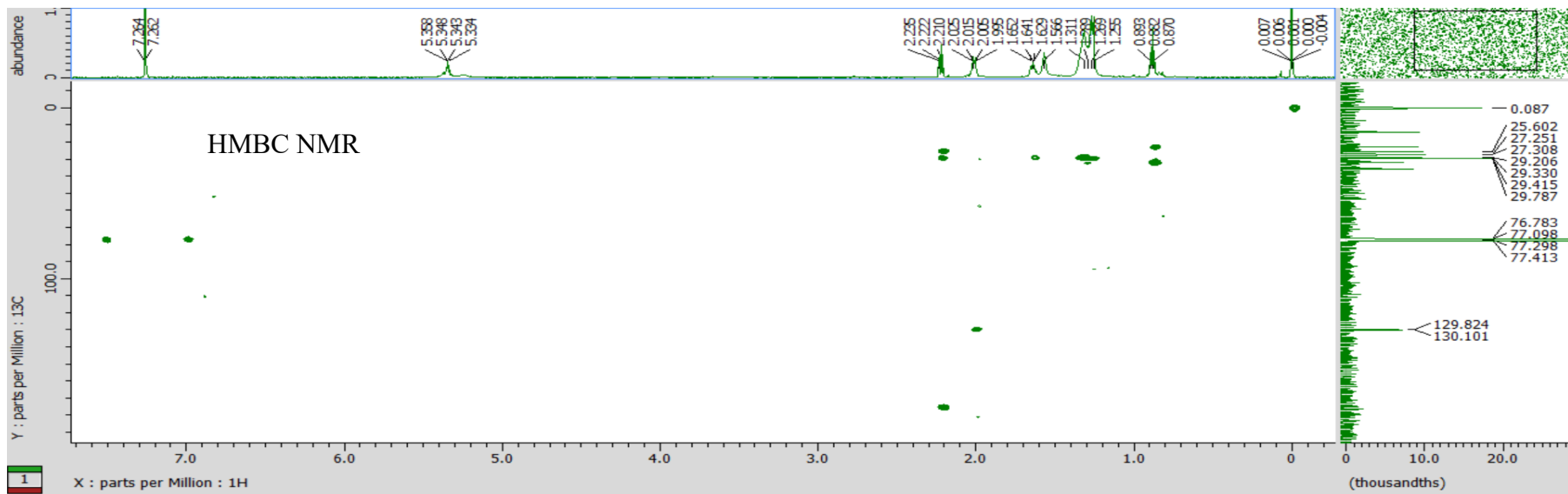
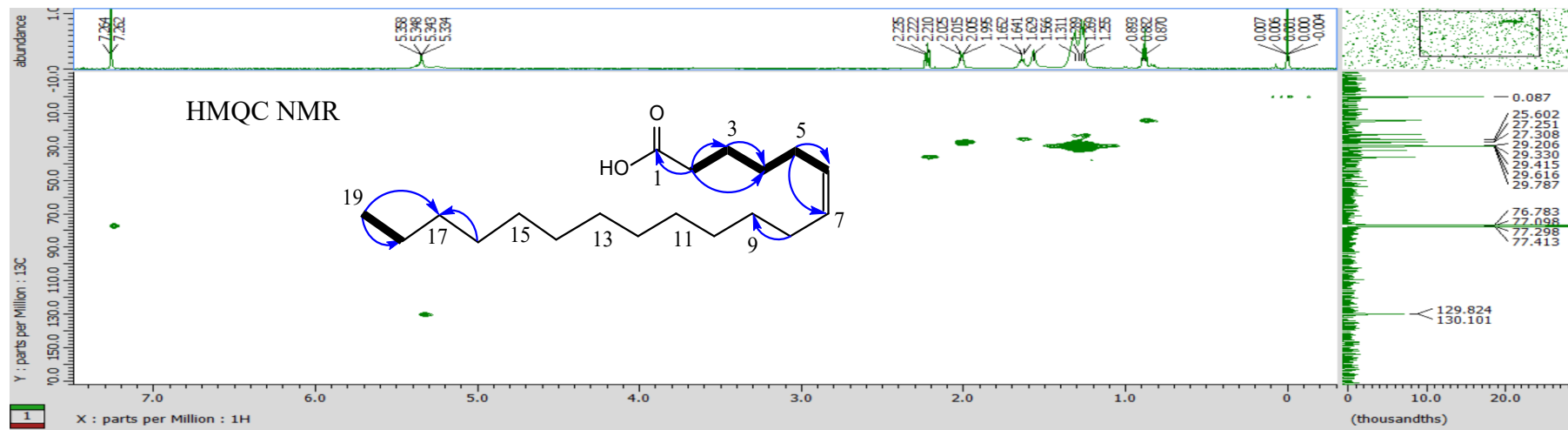




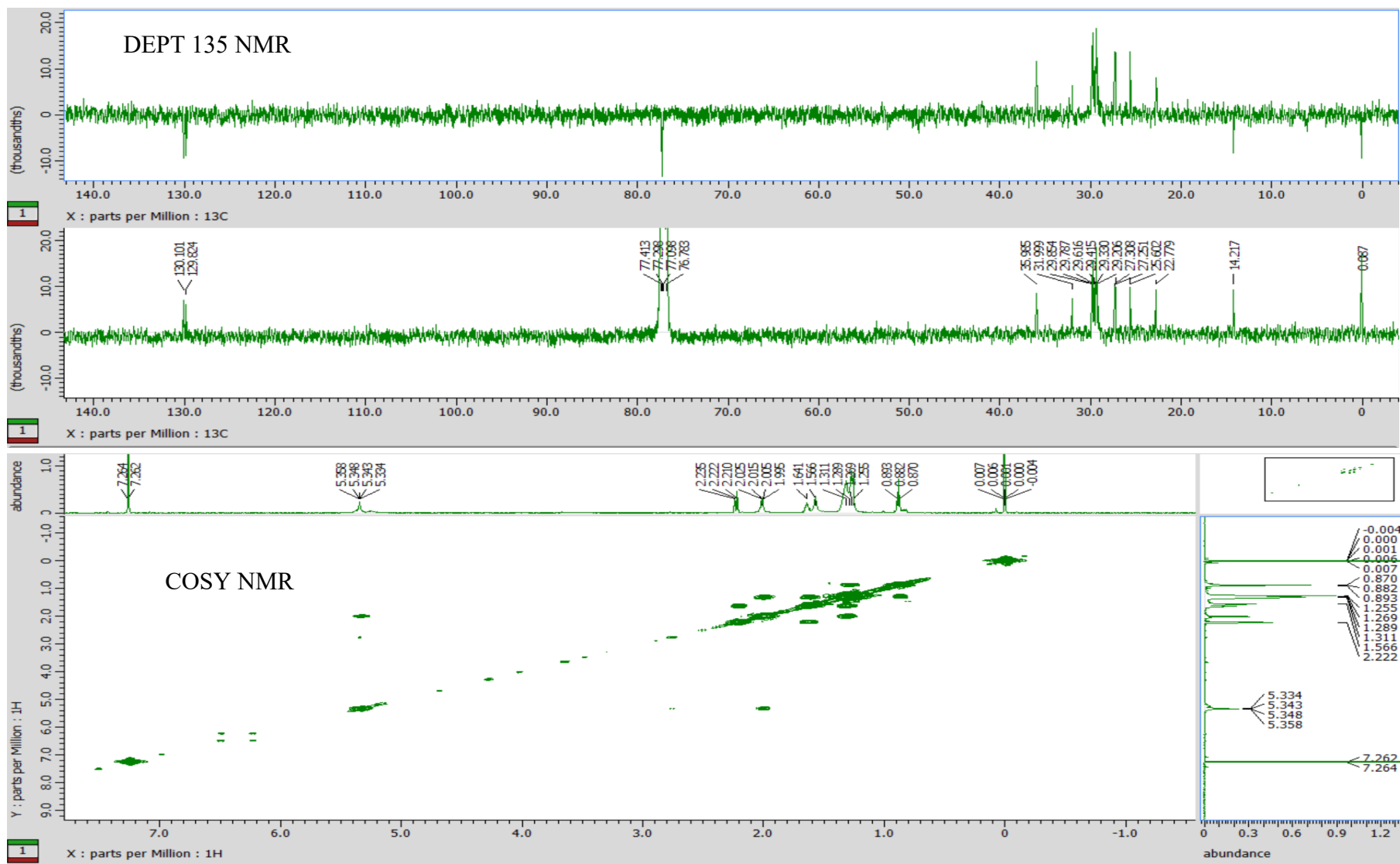


3. 6-Nonadecenoic acid (3)

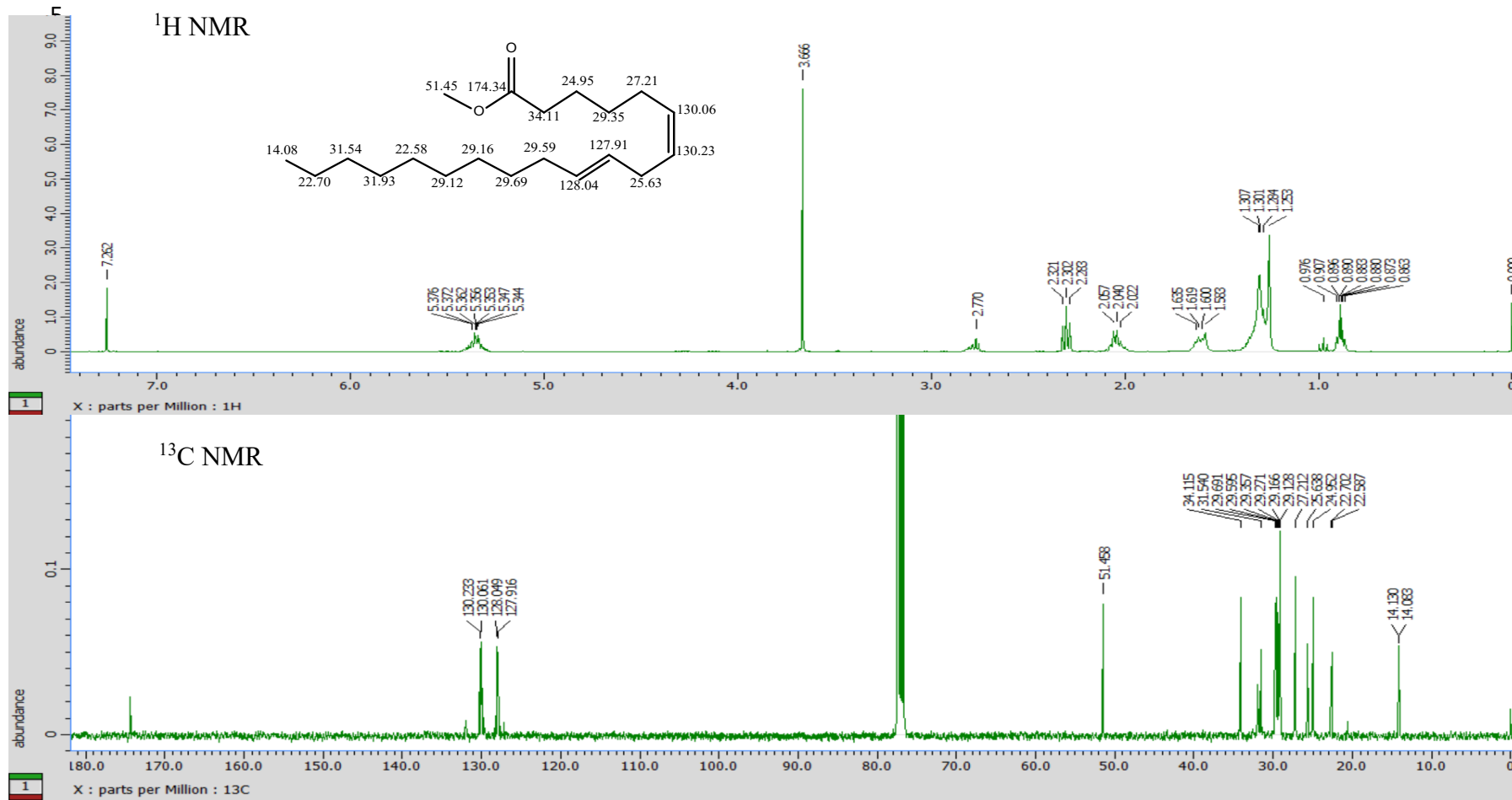


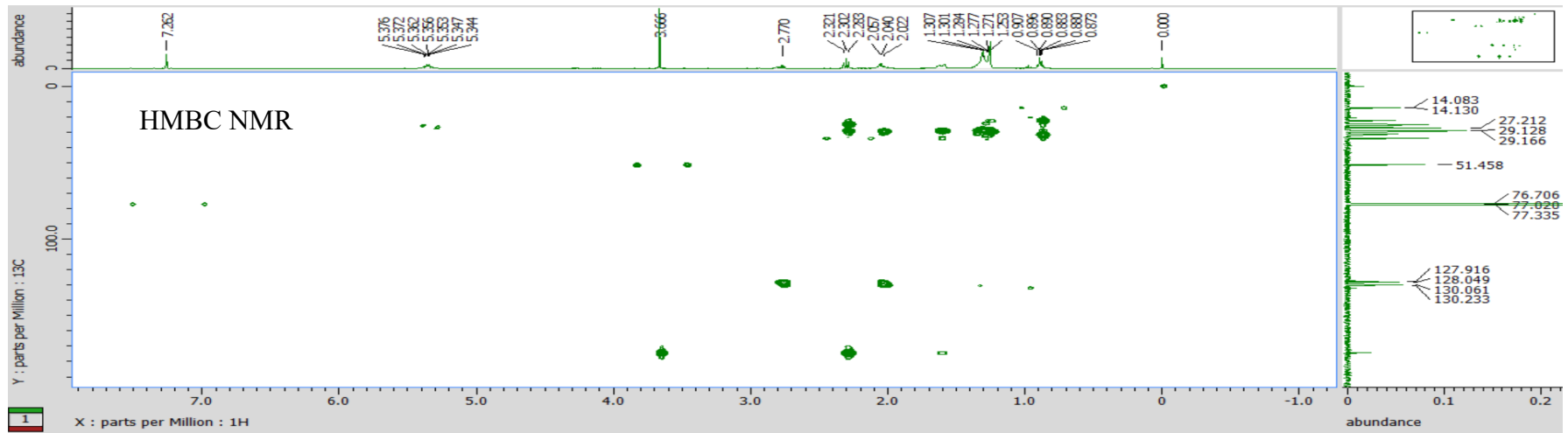
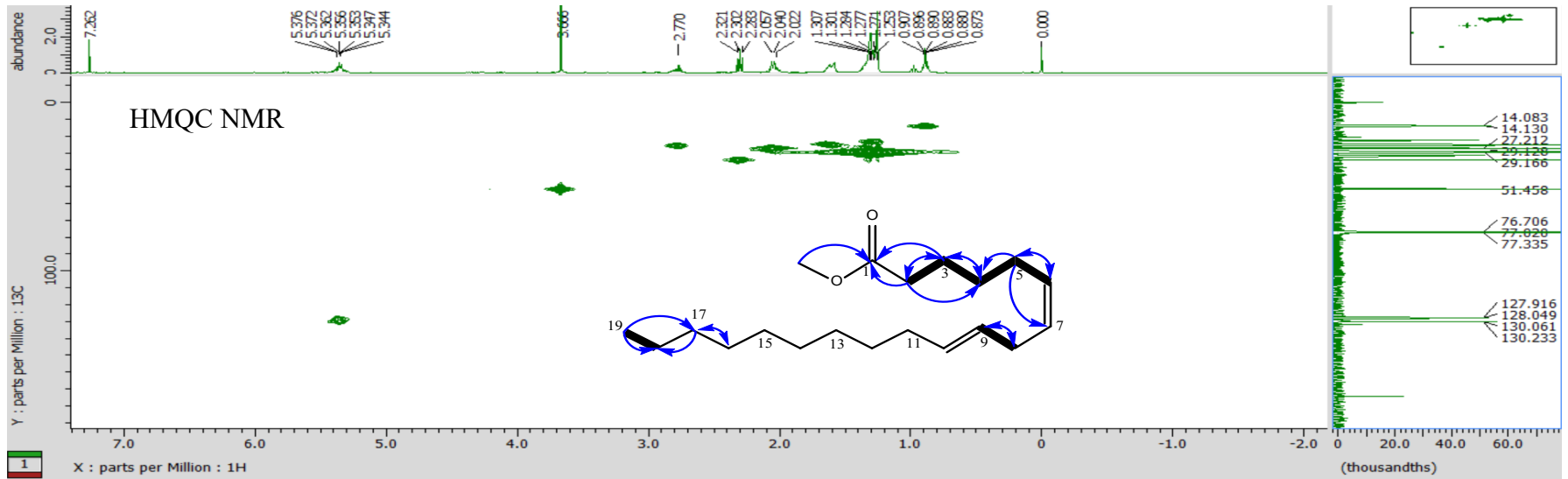


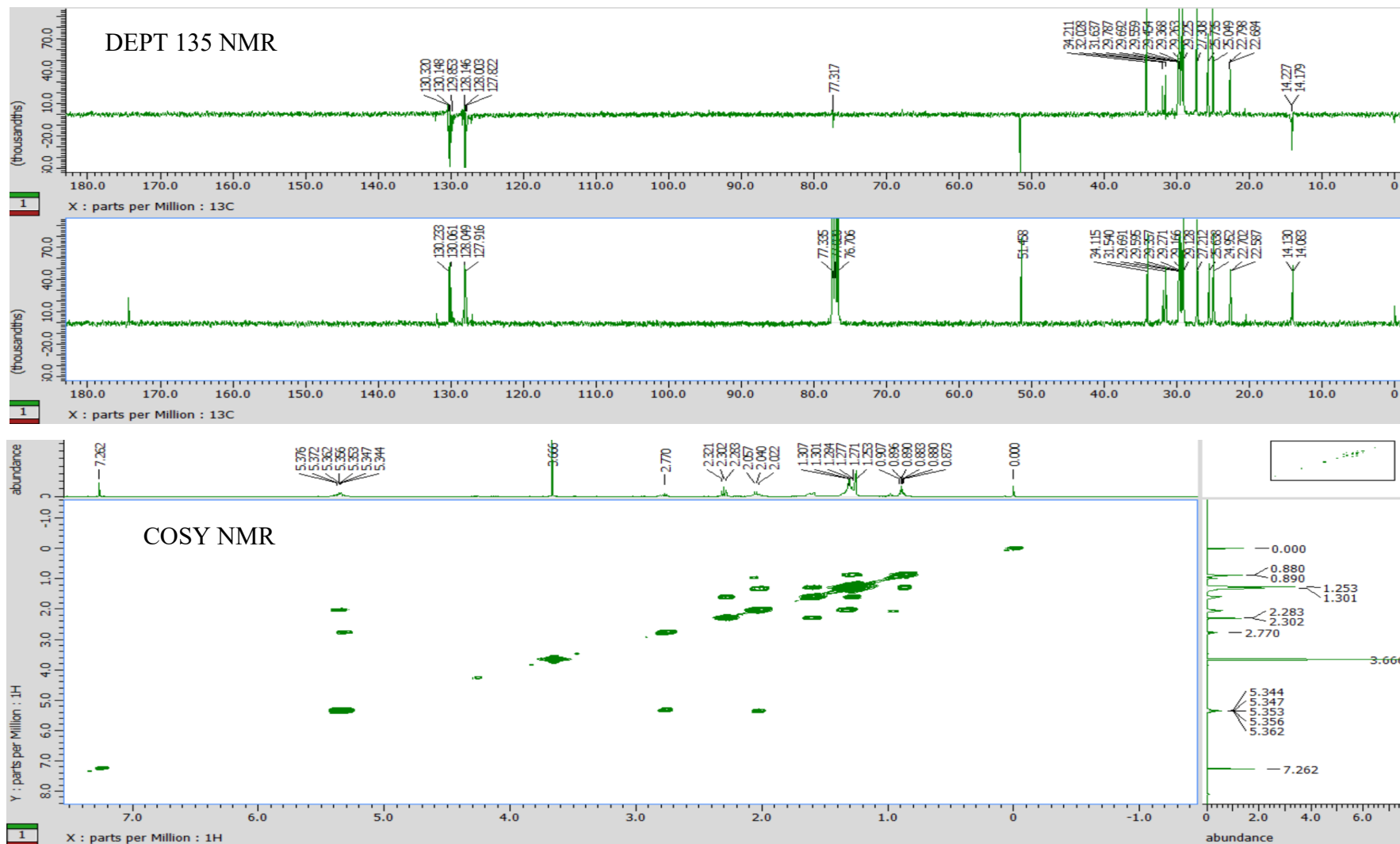




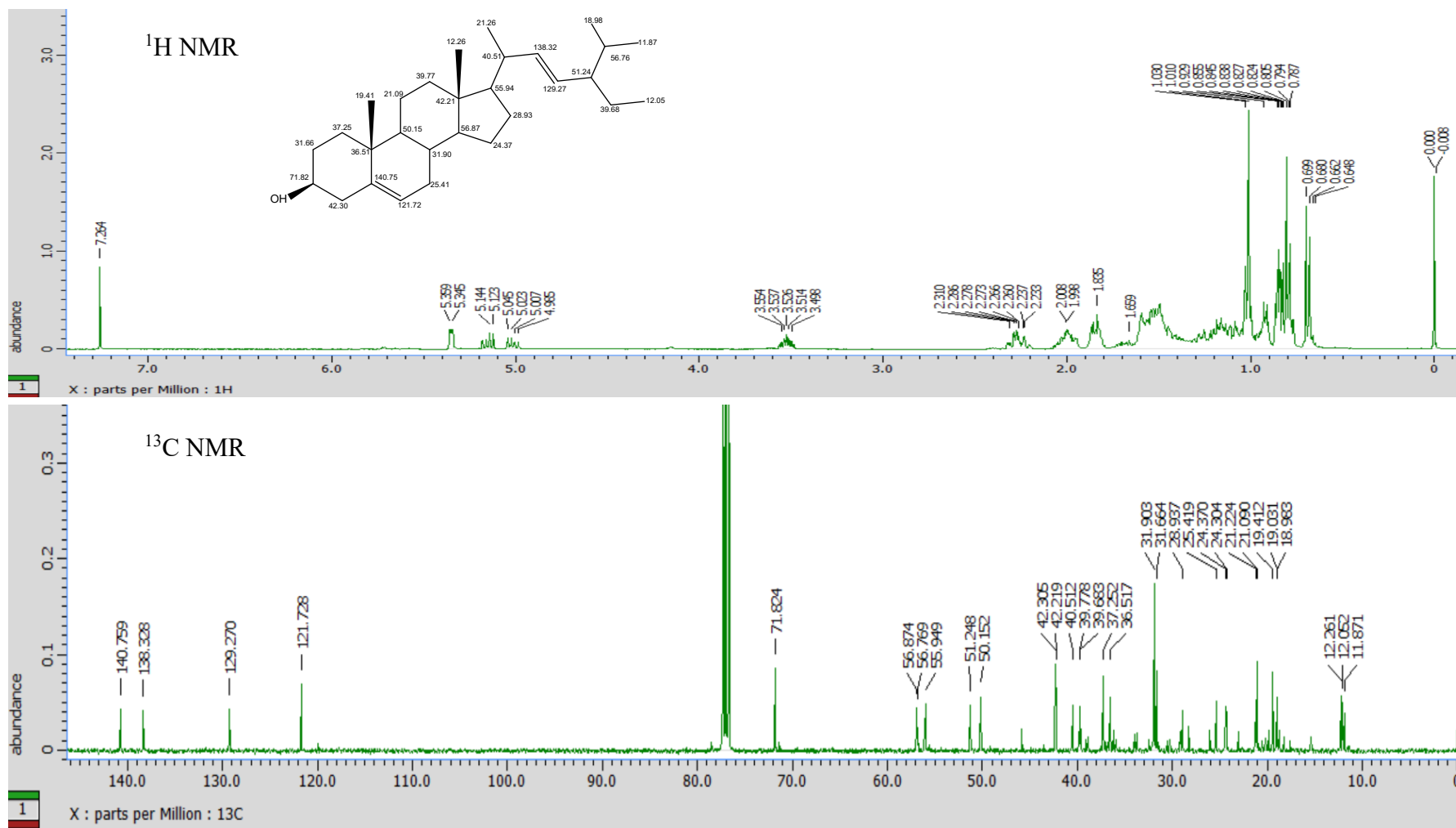
4. 6,9-Nonadecenoic acid, methyl ester (4)

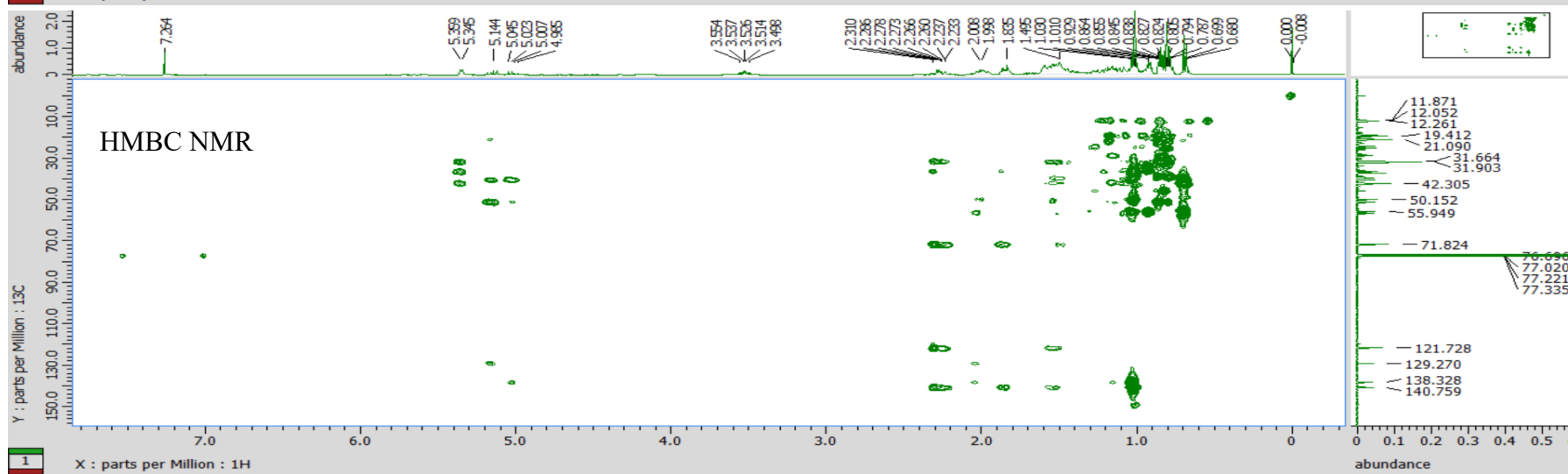
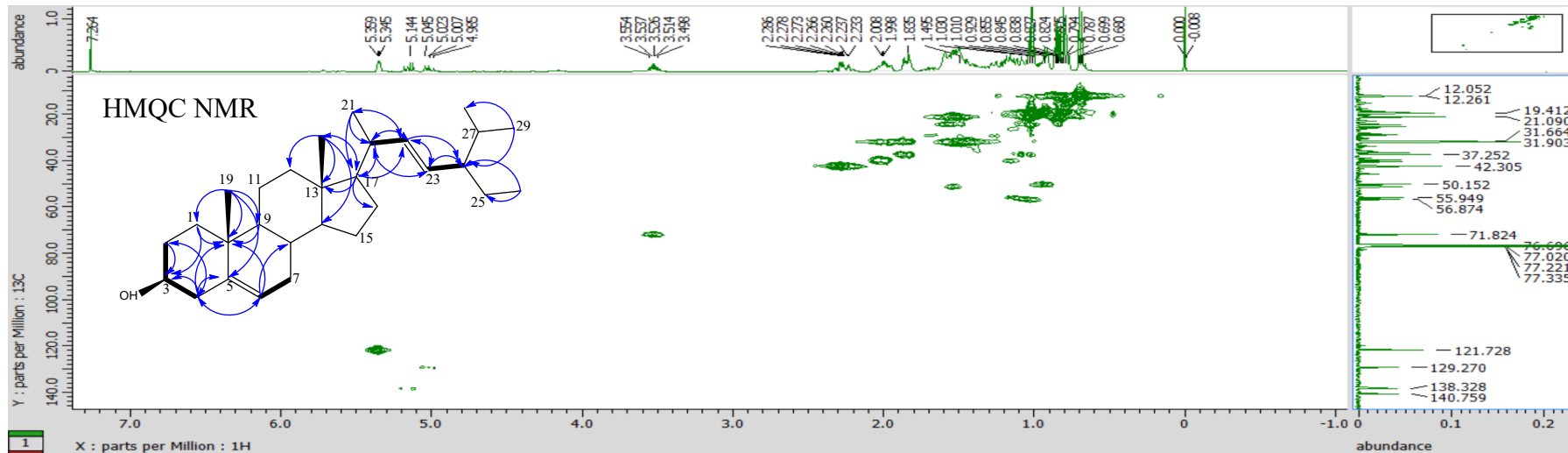


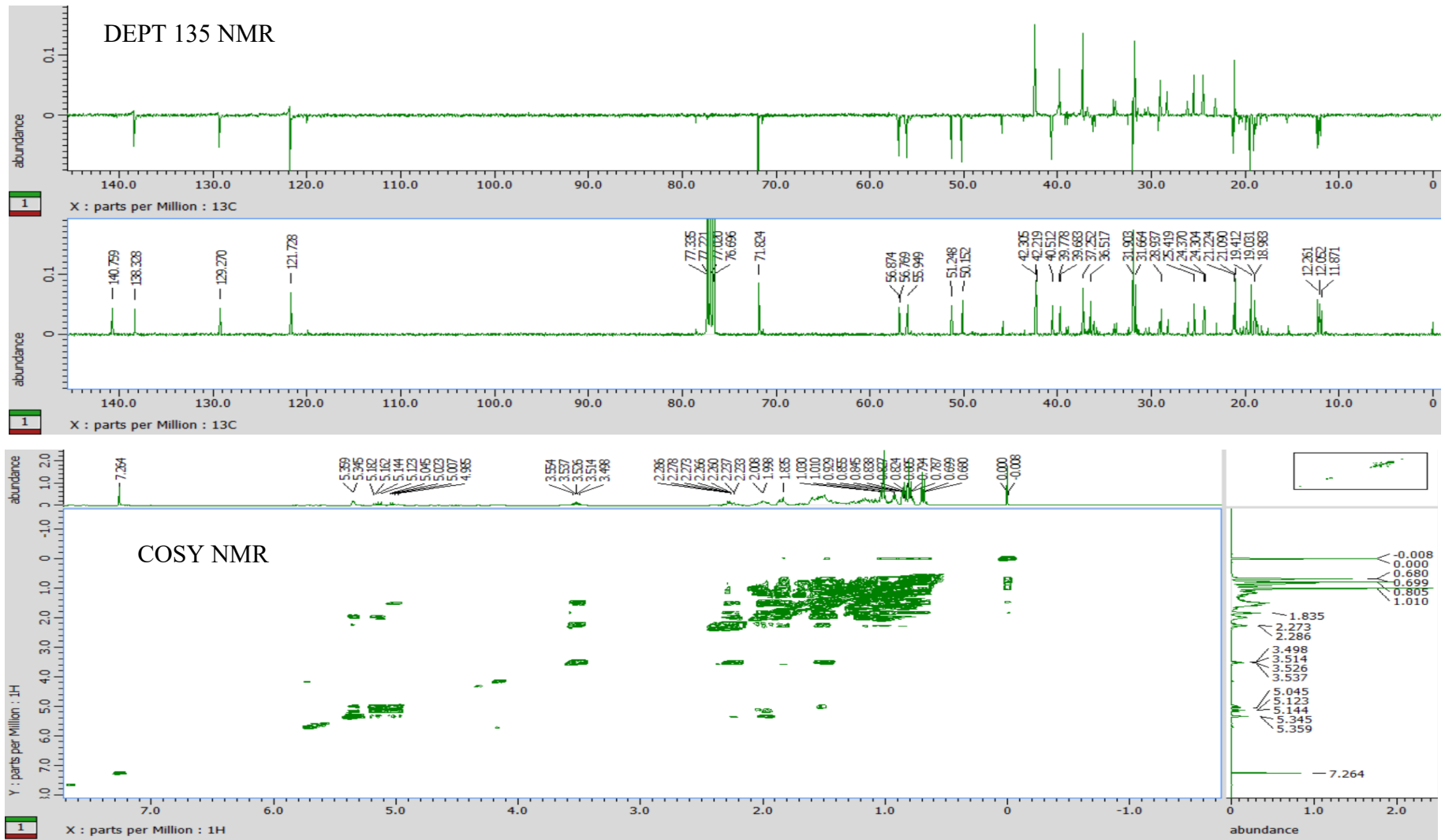




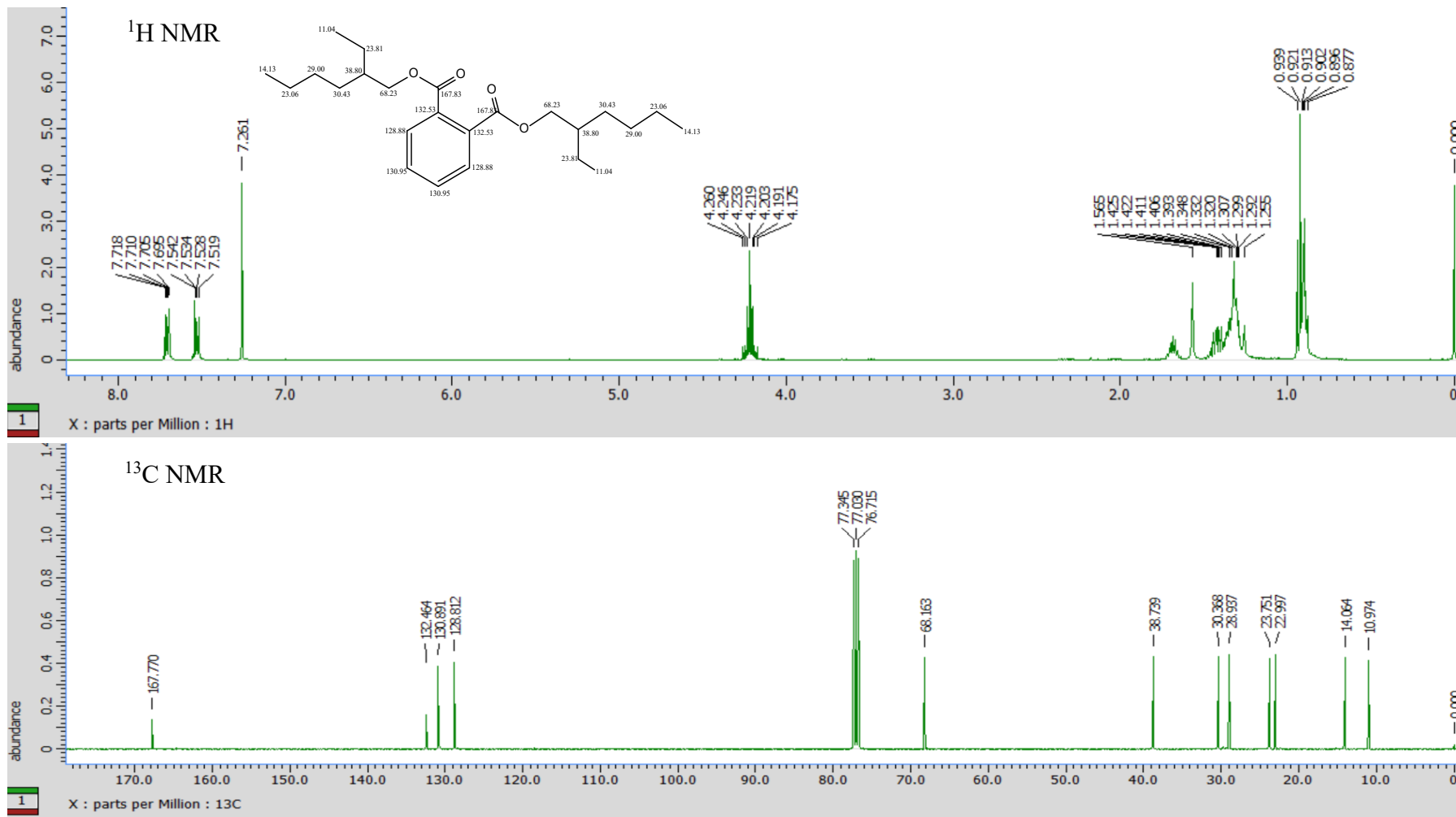
### 5. Stigmasta-5,22-dien-3-ol (5)



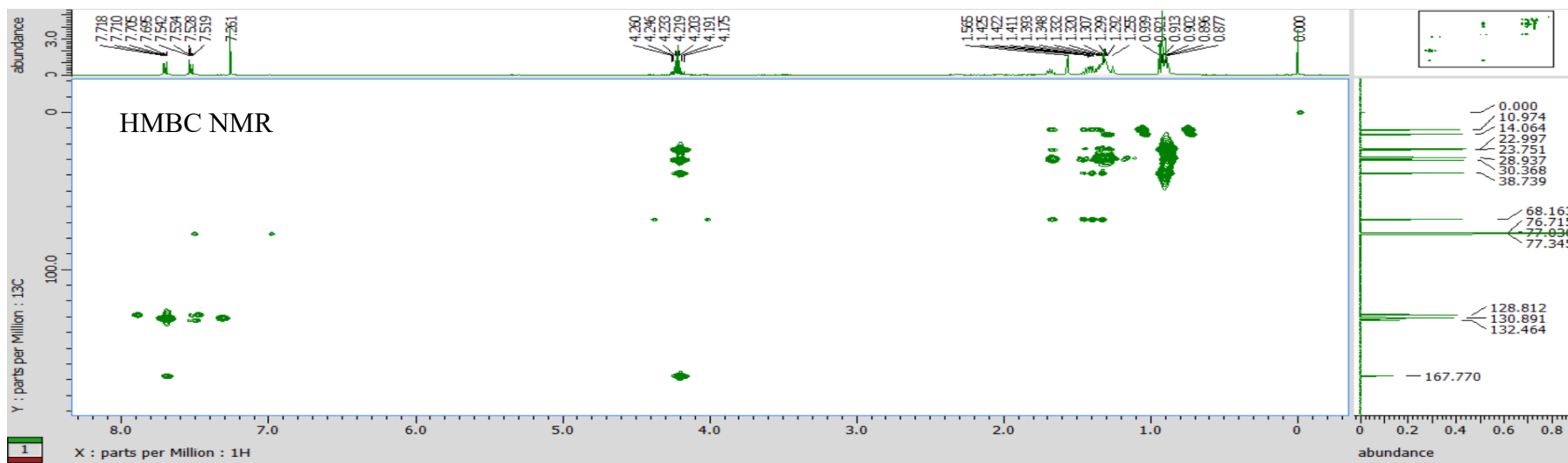
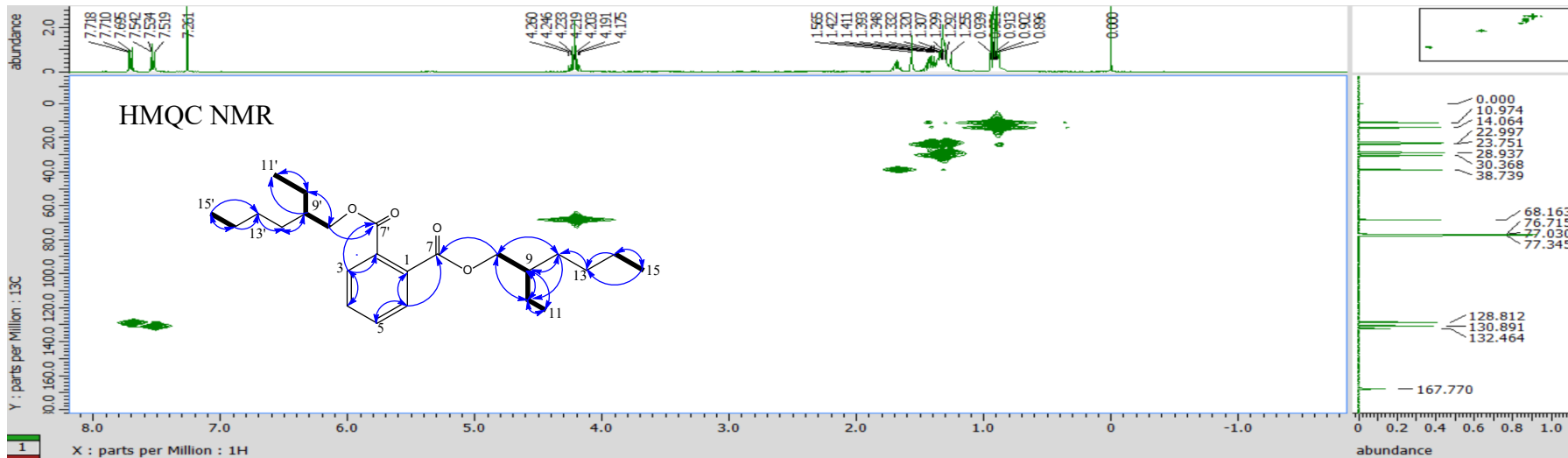




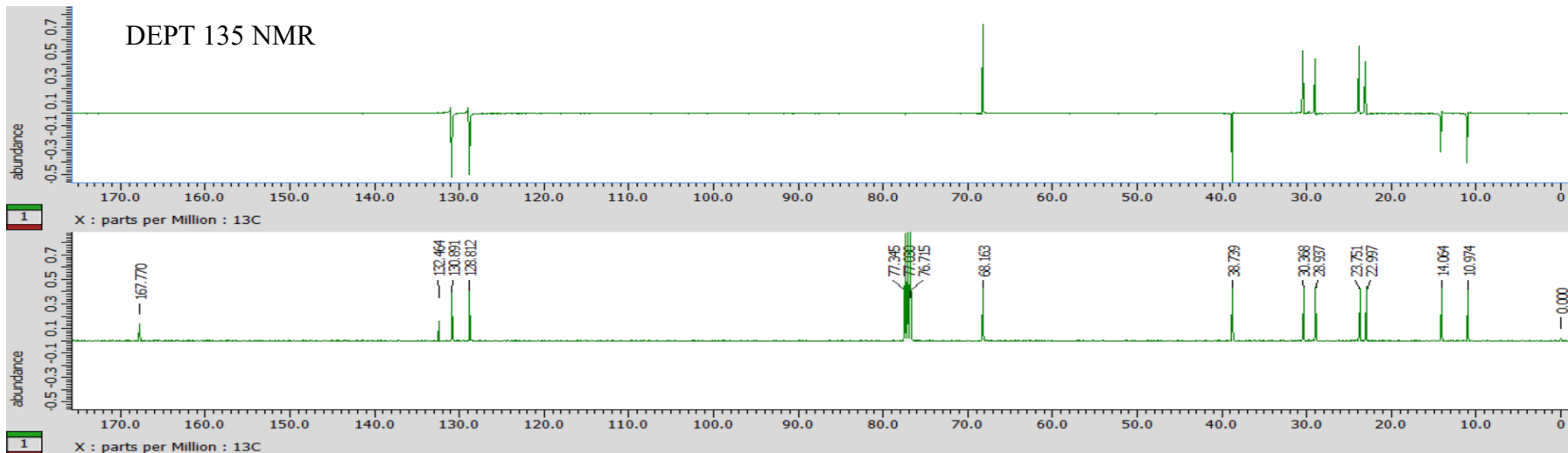
6. 1,2-Benzenedicarboxylic acid, 1,2-bis (2-ethylhexyl) ester (6)



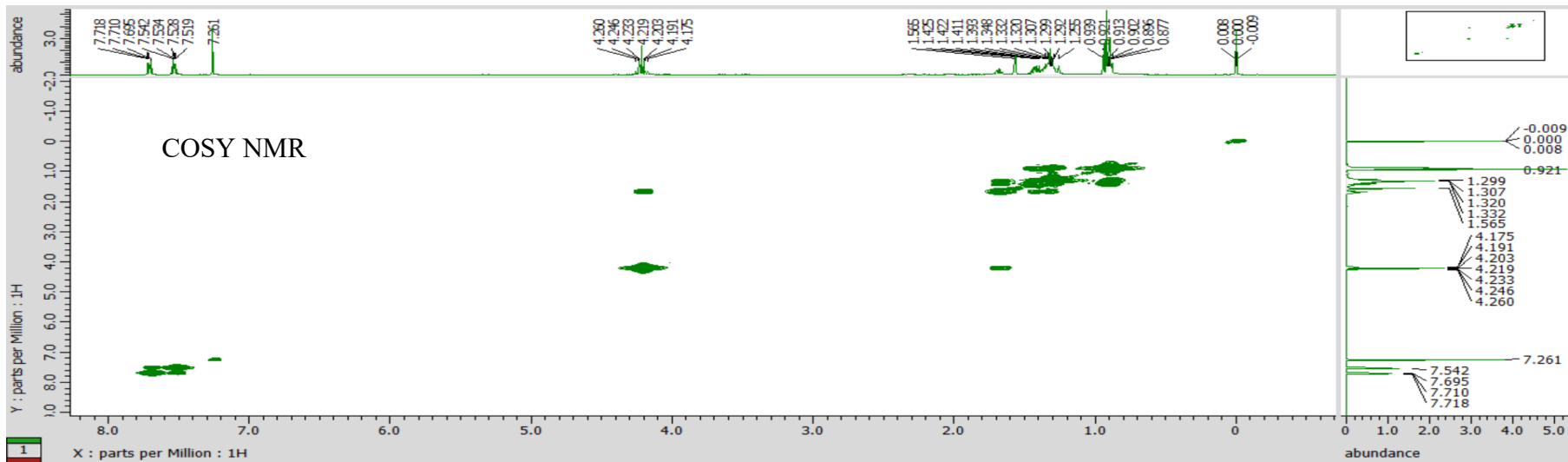




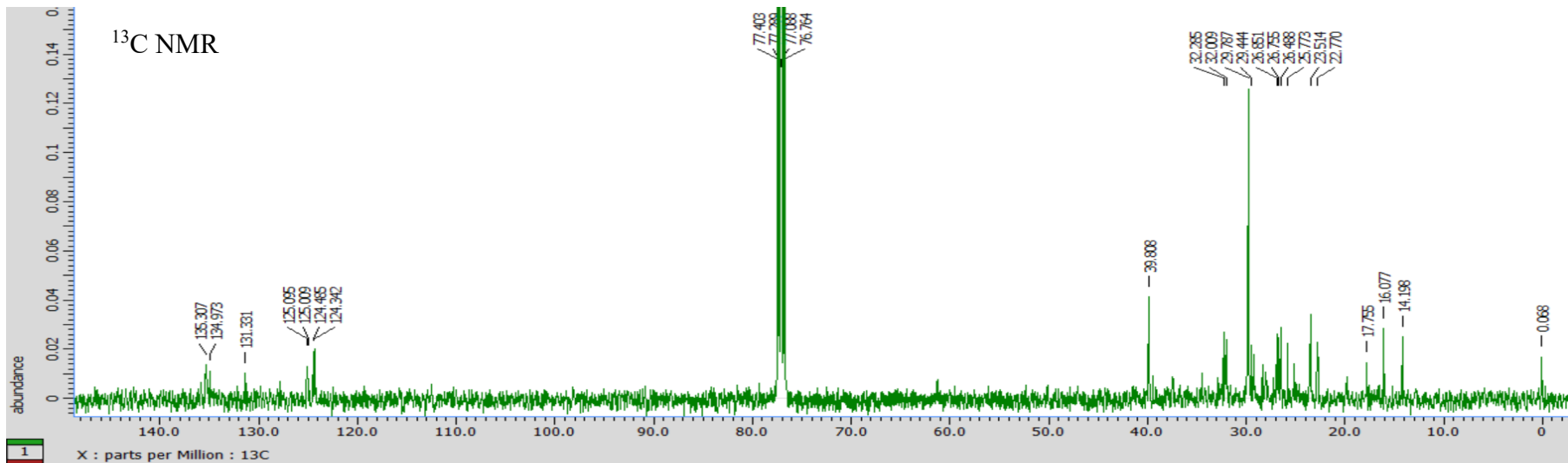
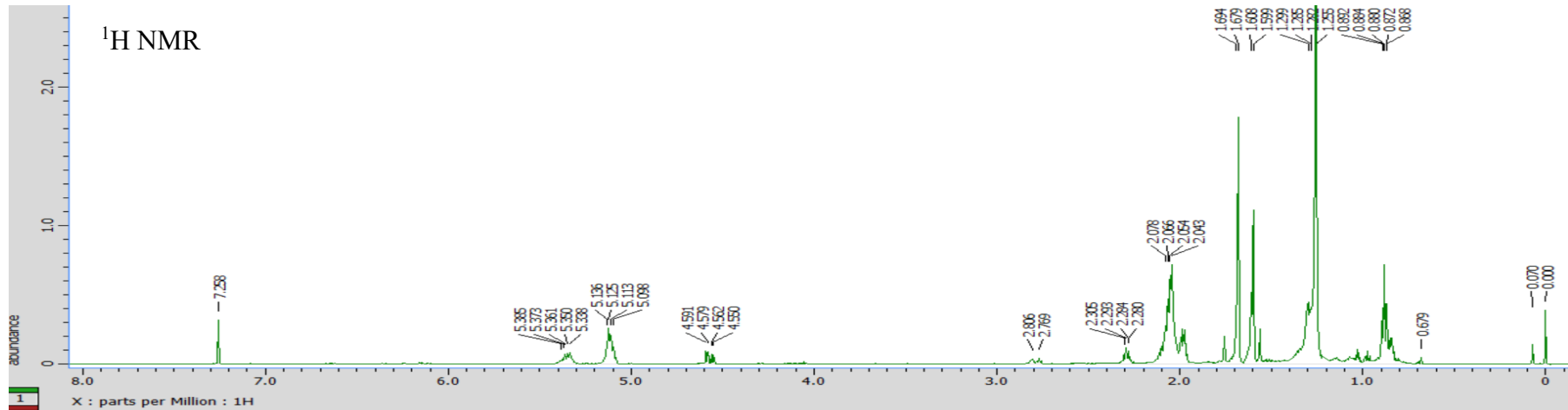
# DEPT 135 NMR

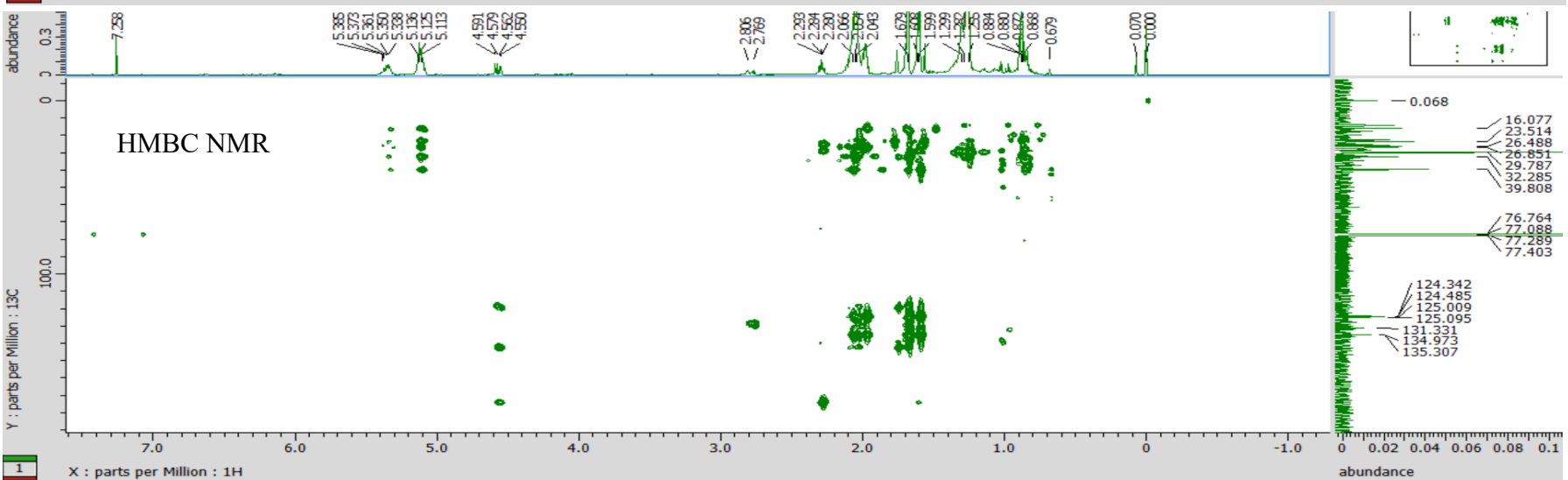
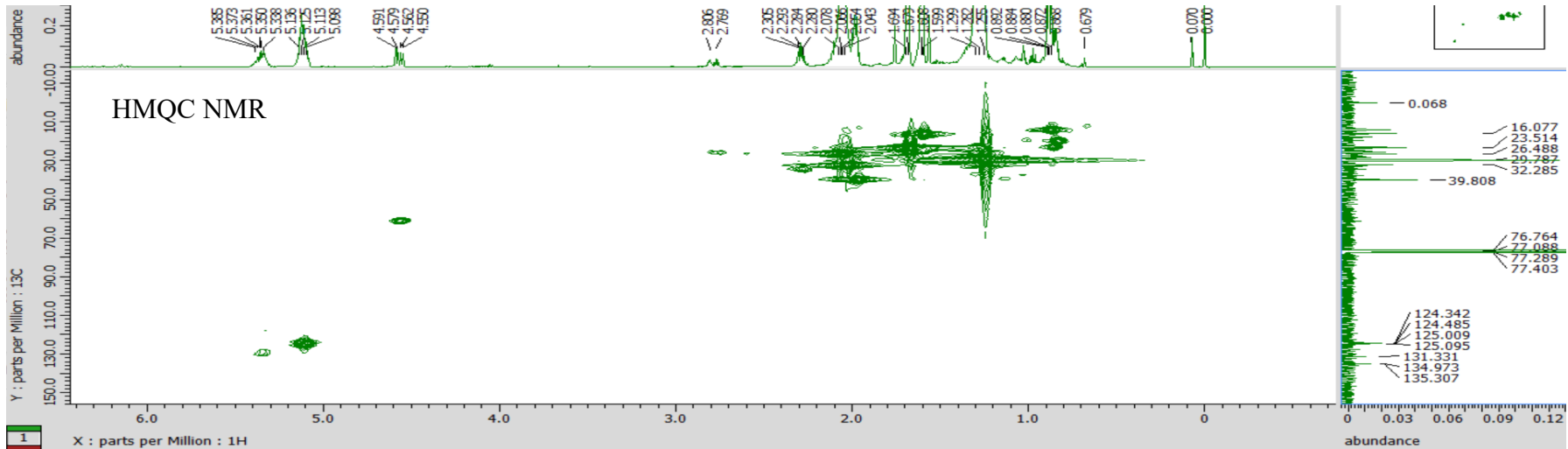


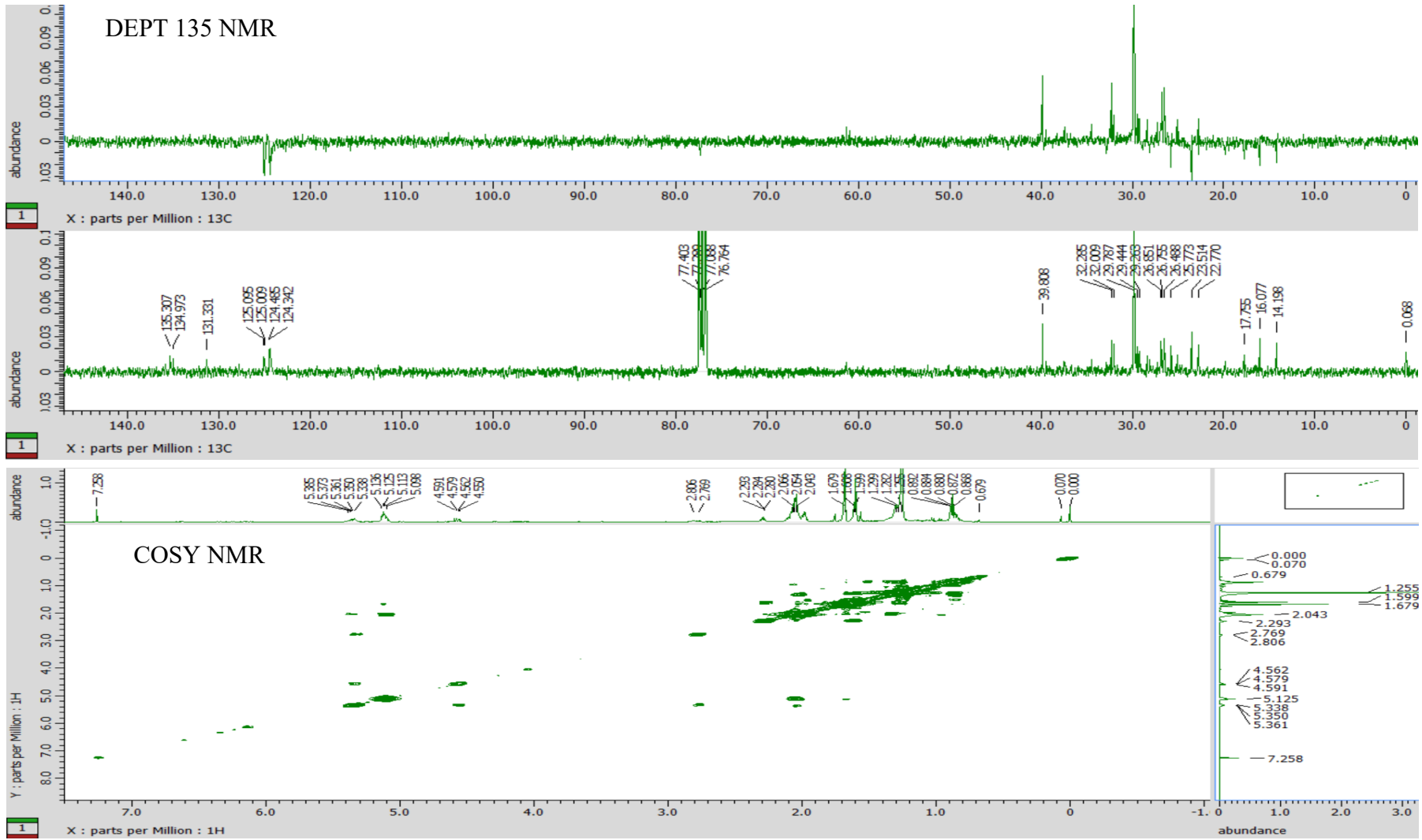
# COSY NMR



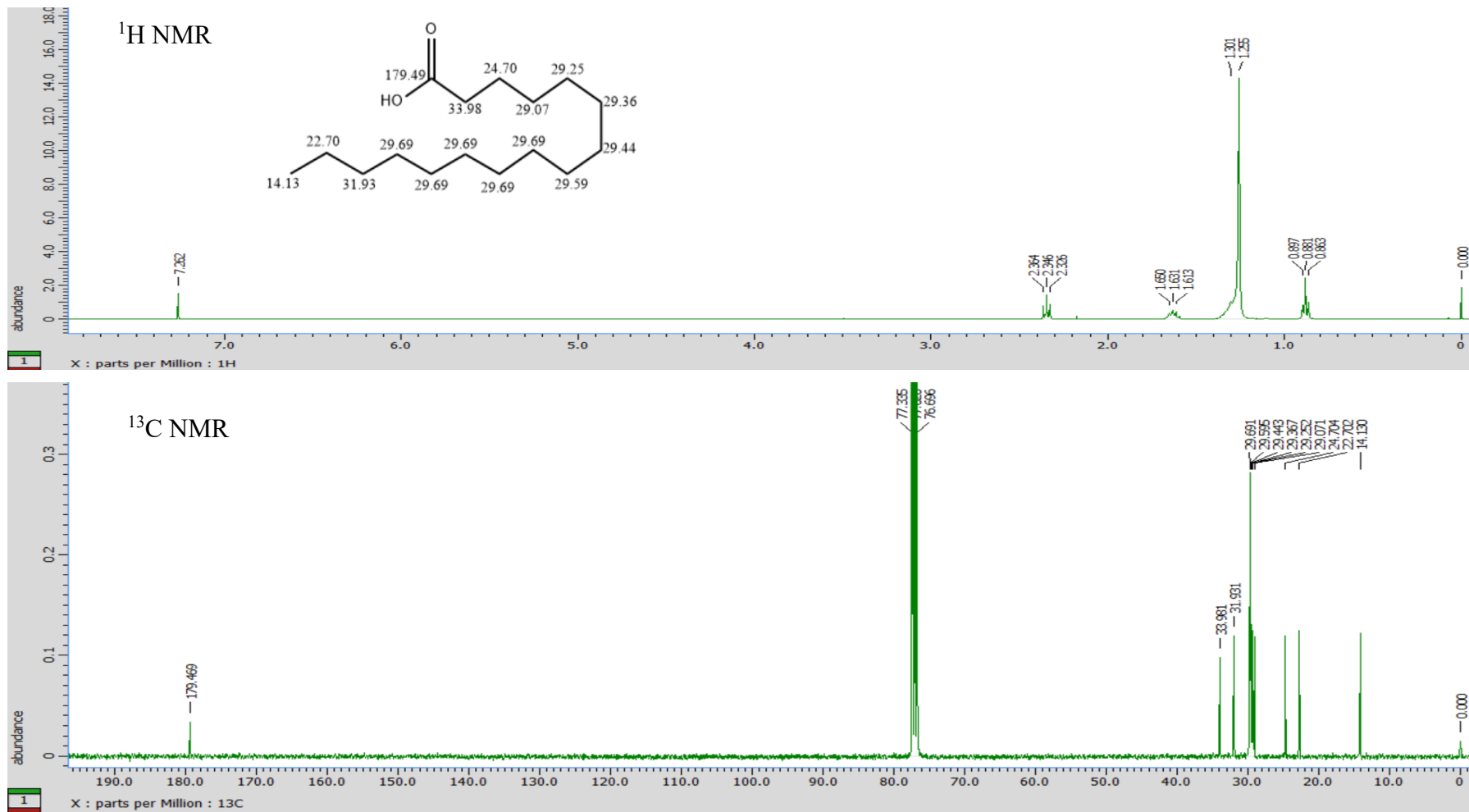
7. Senyawa (7)

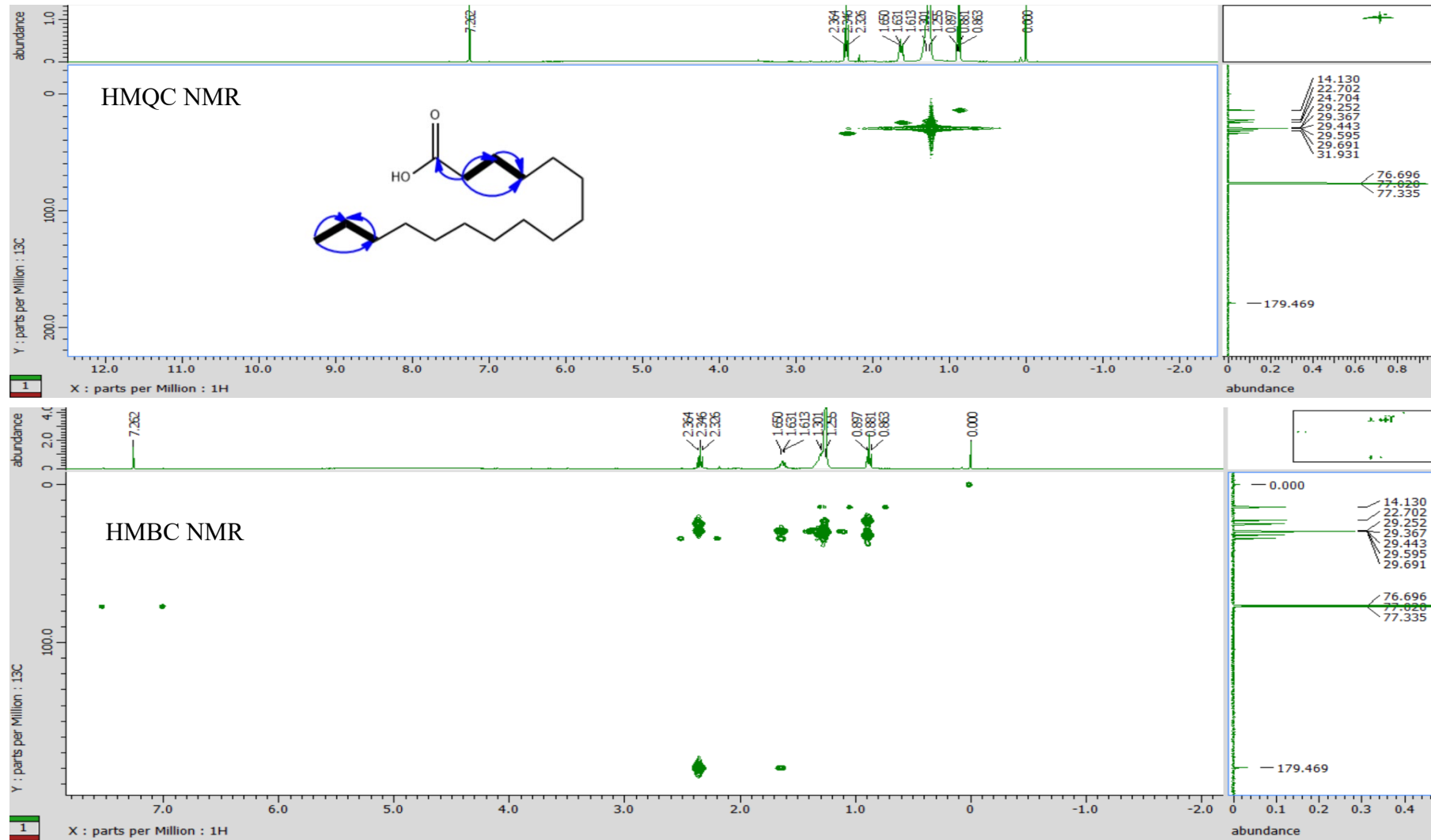




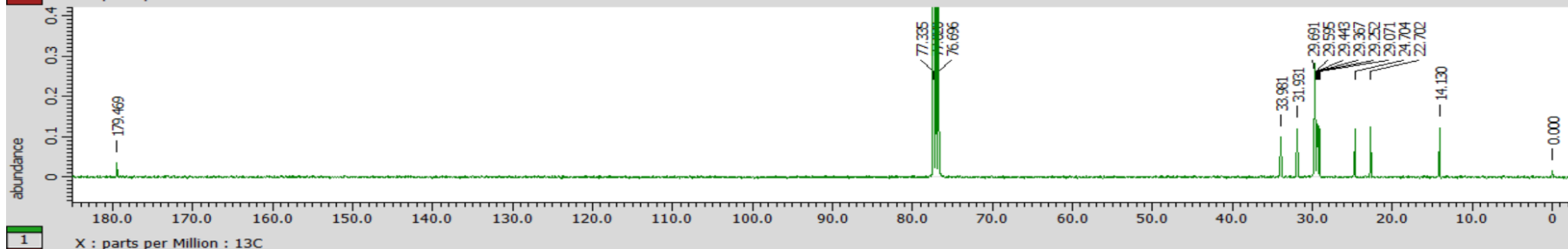
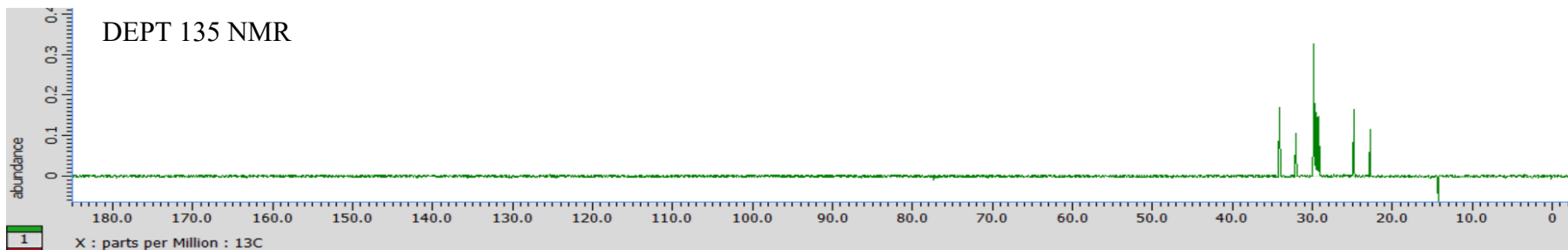


8. Hexadecanoic acid (8)

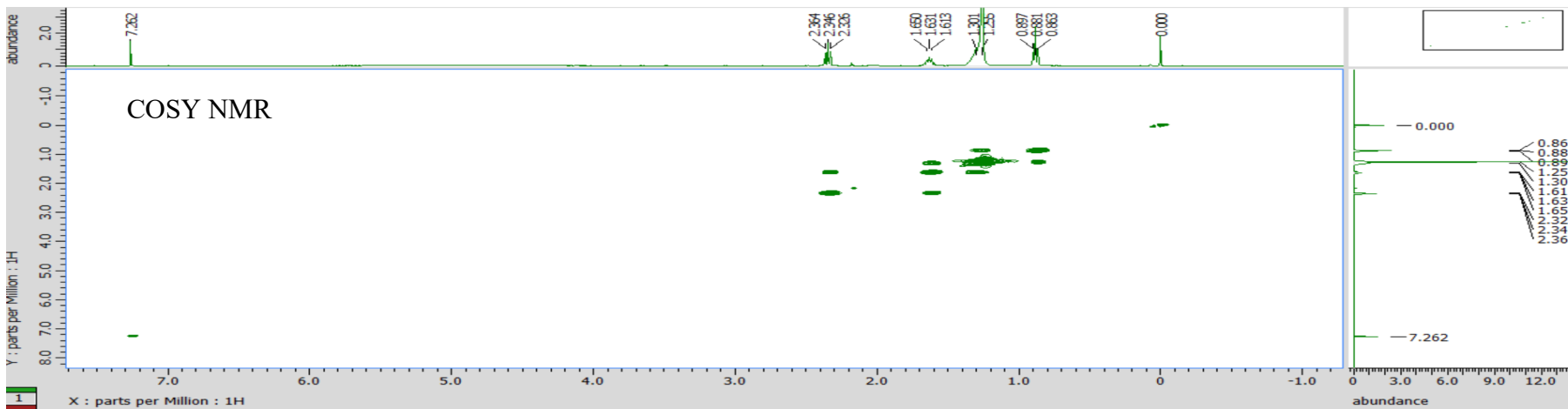




# DEPT 135 NMR



# COSY NMR





9. *Tetradecanoic acid* (9)

