

## Supporting Information

*Rec. Nat. Prod.* 10:3 (2016) 349-354

### A new Antioxidative Resveratrol Trimer from the Roots and Stems of *Vitis quinquangularis*

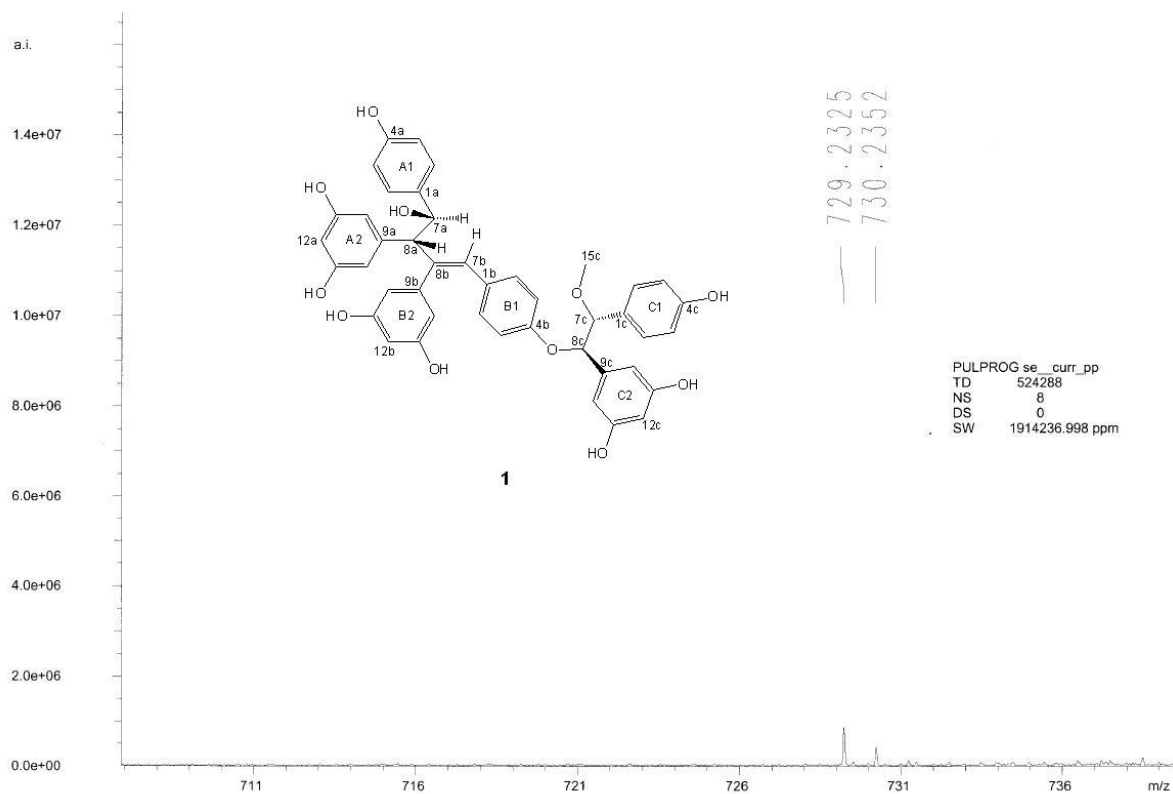
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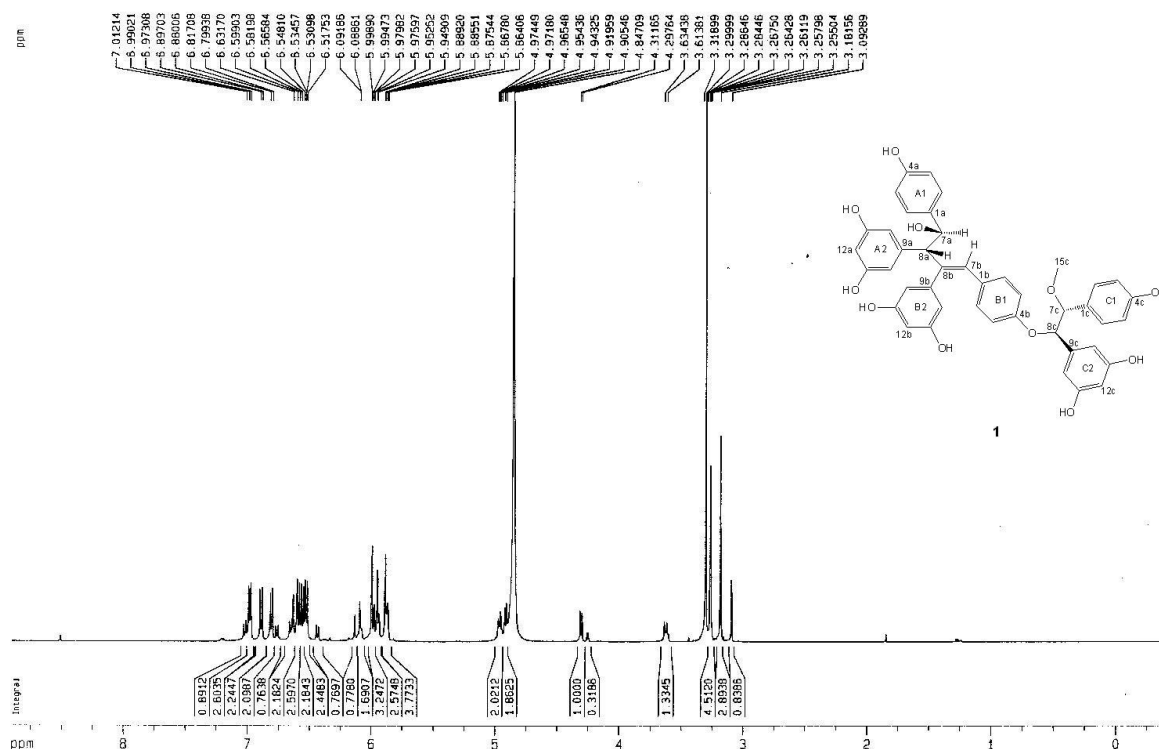
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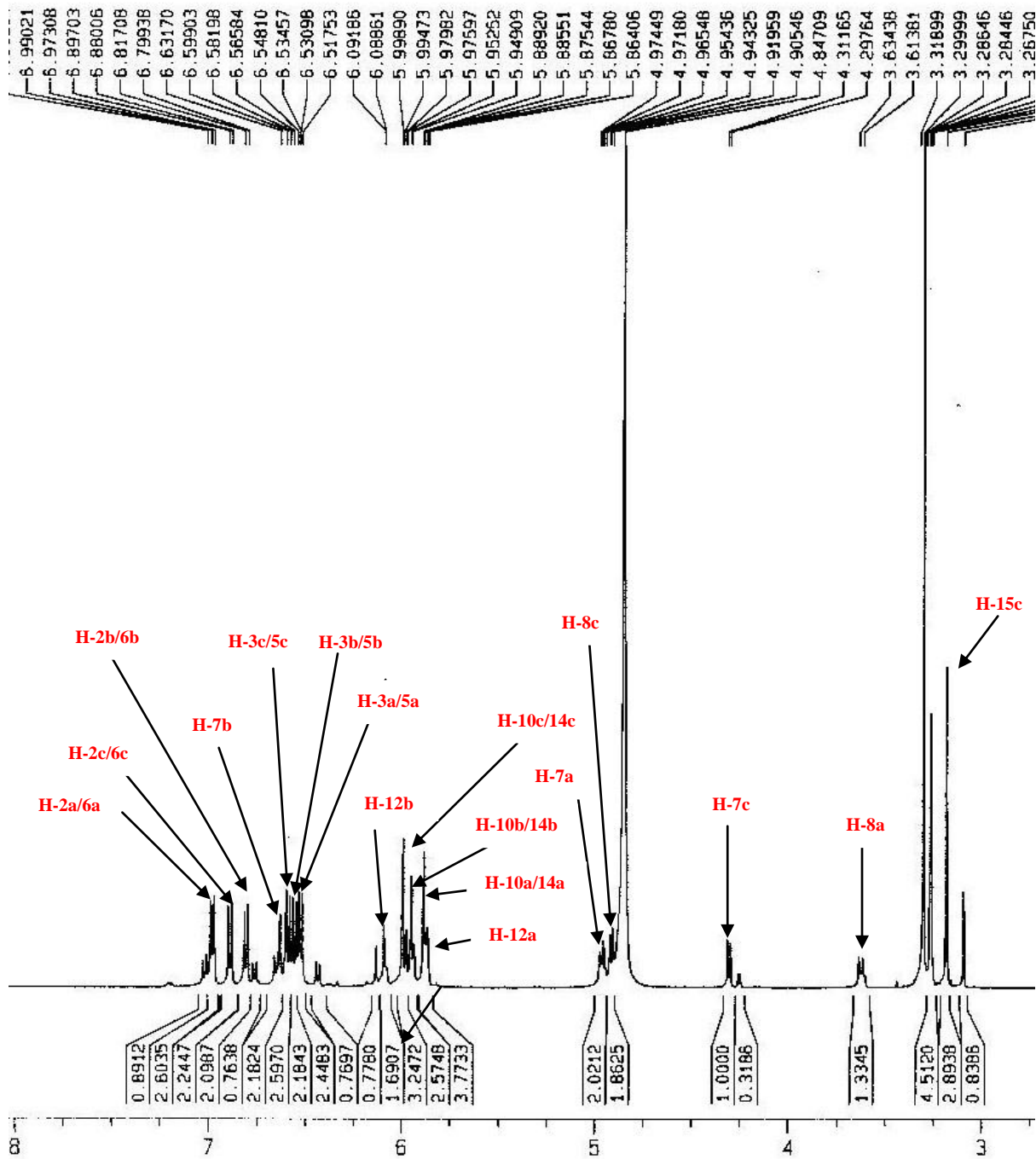
**S1: HR-ESI-MS Spectrum of Quinquangularol (1)**

Zhejiang University Avance DMX 500  
 GNP 5mm Sample: 96Ae-2 in MeOD (pan-08 1006)



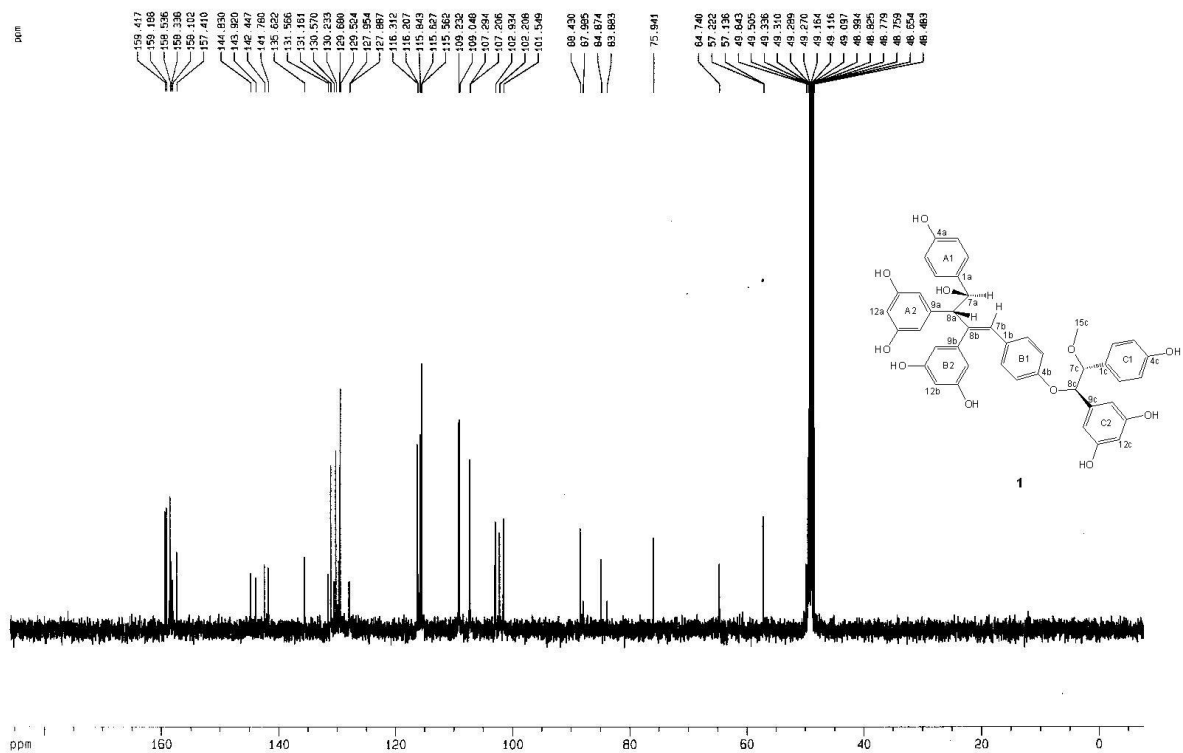
### S2: $^1\text{H-NMR}$ (500 MHz, MeOD) Spectrum of Quinquangularol (1)

*Quinquangularol* (1): Colorless amorphous powder.  $^1\text{H-NMR}$  (MeOD, 500 MHz),  $\delta$ : 3.18 (3H, s, H-15c), 3.62 (1H, d, H-8a), 4.30 (1H, d, H-7c), 4.91 (1H, d, H-8c), 4.97 (1H, d, H-7a), 5.87 (1H, m, H-12a), 5.89 (2H, d, H-10a/14a), 5.95 (2H, d, H-10b/14b), 5.97 (1H, d, H-12c), 5.99 (2H, d, H-10c/14c), 6.09 (1H, d, H-12b), 6.52 (2H, d, H-3a/5a), 6.55 (2H, d, H-3b/5b), 6.57 (2H, d, H-3c/5c), 6.63 (1H, s, H-7b), 6.80 (2H, d, H-2b/6b), 6.89 (2H, d, H-2c/6c), 6.98 (2H, d, H-2a/6a).  $^{13}\text{C-NMR}$  (MeOD, 125 MHz),  $\delta$ : 57.2 (C-15c), 64.7 (C-8a), 75.9 (C-7a), 84.9 (C-8c), 88.4 (C-7c), 101.5 (C-12a), 102.2 (C-12b), 102.9 (C-12c), 107.3 (C-10c/14c), 109.0 (C-10b/14b), 109.2 (C-10a/14a), 115.6 (C-3a/5a), 115.8 (C-3c/5c), 116.3 (C-3b/5b), 127.9 (C-7b), 129.5 (C-2a/6a), 129.7 (C-1c), 130.2 (C-2c/6c), 131.2 (C-2b/6b), 131.6 (C-1b), 135.6 (C-1a), 141.8 (C-9c), 142.4 (C-8b), 143.9 (C-9a), 144.8 (C-9b), 157.4 (C-4a), 158.1 (C-4b), 158.3 (C-4c), 158.5 (C-11a/13a), 159.2 (C-11c/13c), 159.4 (C-11b/13b). HR-ESI-MS:  $m/z = 729.2325$  [M-H] $^-$  for formula  $\text{C}_{43}\text{H}_{37}\text{O}_{11}$ .

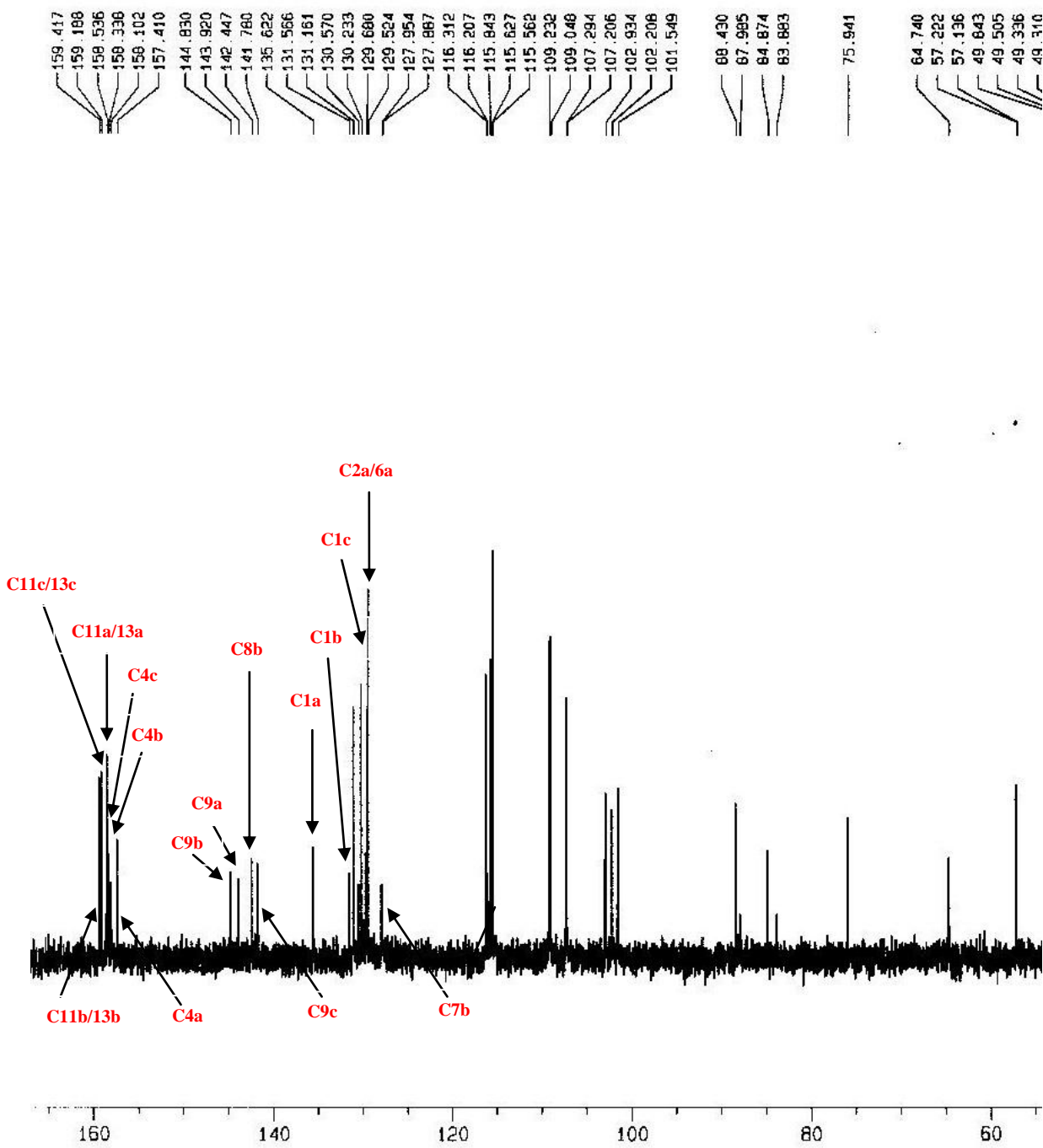


**S3:** Expansion of the <sup>1</sup>H-NMR Spectrum of Quinquangulol (1)

Zhejiang University Avance DMX 500  
QNP 5mm Sample: 96Re-2 in MeOD (pan-08 1007)

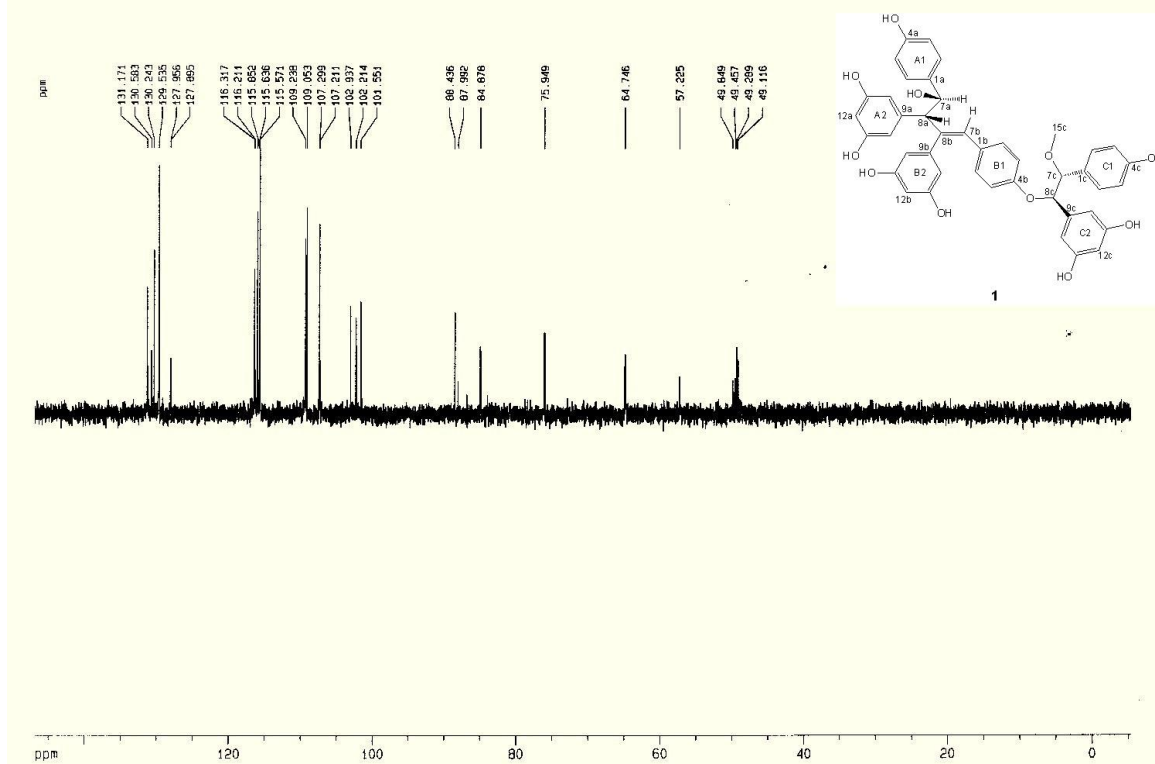


S4:  $^{13}\text{C}$ -NMR (125 MHz, MeOD) Spectrum of Quinquangularol (1)



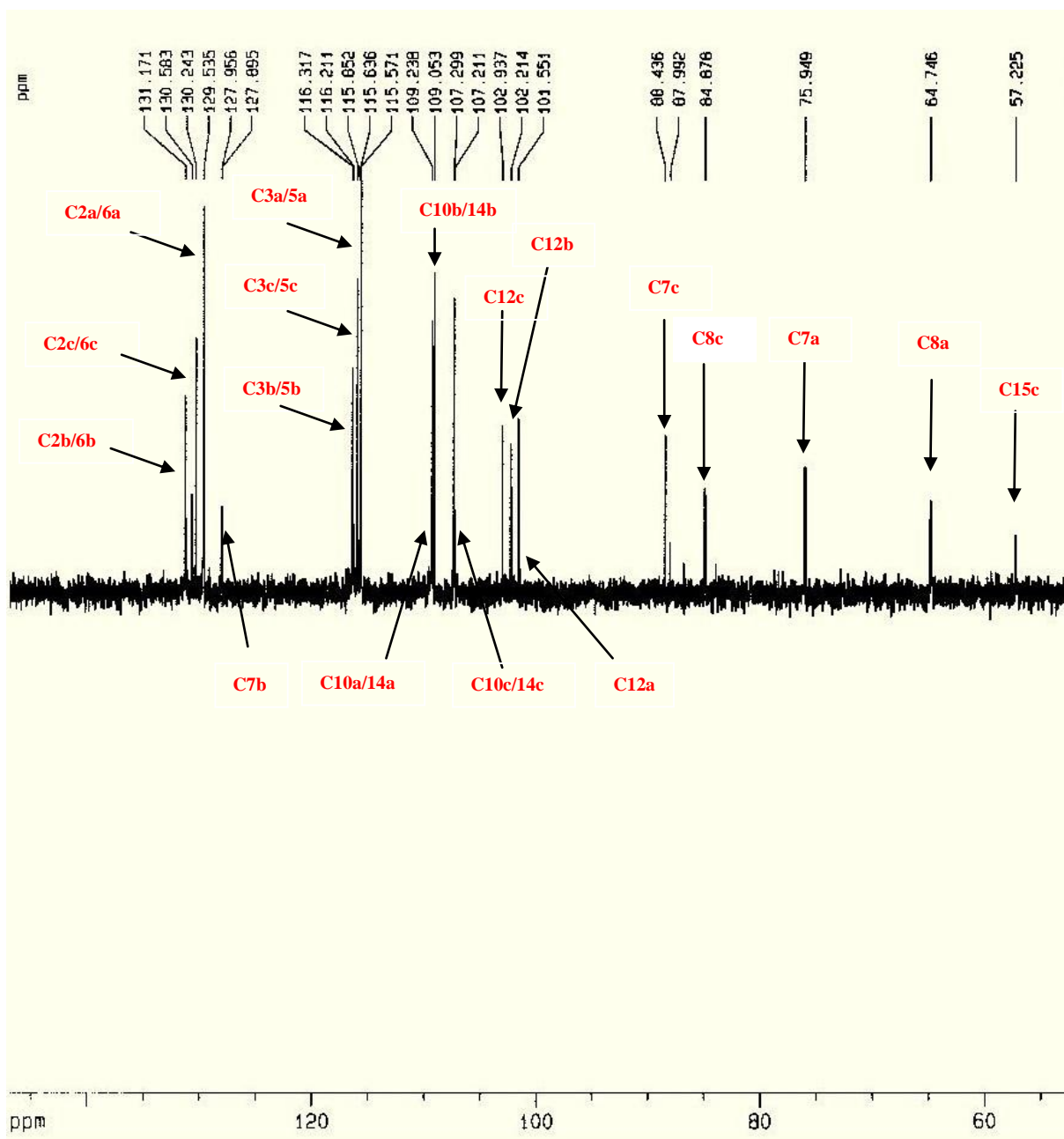
S5: Expansion of the  $^{13}\text{C}$ -NMR Spectrum of Quinquangularol (1)

Zhejiang University Avance DMX 500  
QNP 5mm Sample: 96Re-2 in MeOD (pan-08 1008)

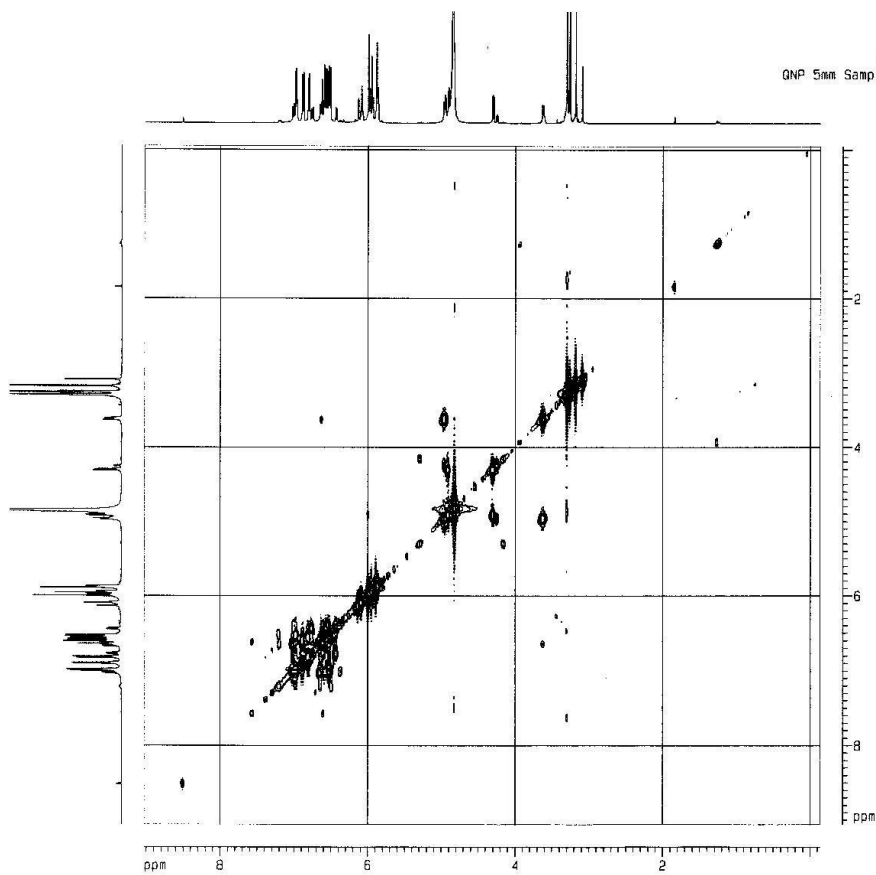


**S6:** DEPT (125 MHz, MeOD) Spectrum of Quinquangularol (1)





S7: Expansion of the DEPT Spectrum of Quinquangulol (1)



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Current Data Parameters
NAME          p-08
EXPNO        1019
PROCNO       1

F2 - Acquisition Parameters
Date_        20080508
TIME         11.08
INSTRUM      spect
PROBHD       5 mm QNP 1H/13
PULPROG      zgpg30
TD           32768
SOLVENT      MeOD
AQ           1.00
RG           512
DS           4
SWH          5462.458 Hz
FIDRES      0.180000 Hz
AQ          0.180000 sec
RG          51.200 usec
DE          0.00 usec
TE           301.4 K
NUC1         13C
NUC2         1H
PC           0.20000000 sec
DI          1.40000000 sec
SFO         0.20000000 sec
D18         0.00200000 sec
D19         0.00200000 sec
MCNST       0.00000000 sec
MCNEN       1.40000000 sec

===== CHANNEL f1 =====
NUC1         13C
PC           0.20 usec
PL           0.20 usec
PL1         4.00 dB
SFO         500.130450 MHz

===== CHANNEL CHANNEL =====
DPPH1        SINE 100
SFO1         SINE 100
SFO2         0.00 Hz
SFO3         0.00 Hz
SFO4         0.00 Hz
SFO5         0.00 Hz
SFO6         0.00 Hz
SFO7         10.00 Hz
SFO8         10.00 Hz
SFO9         1000.00 usec

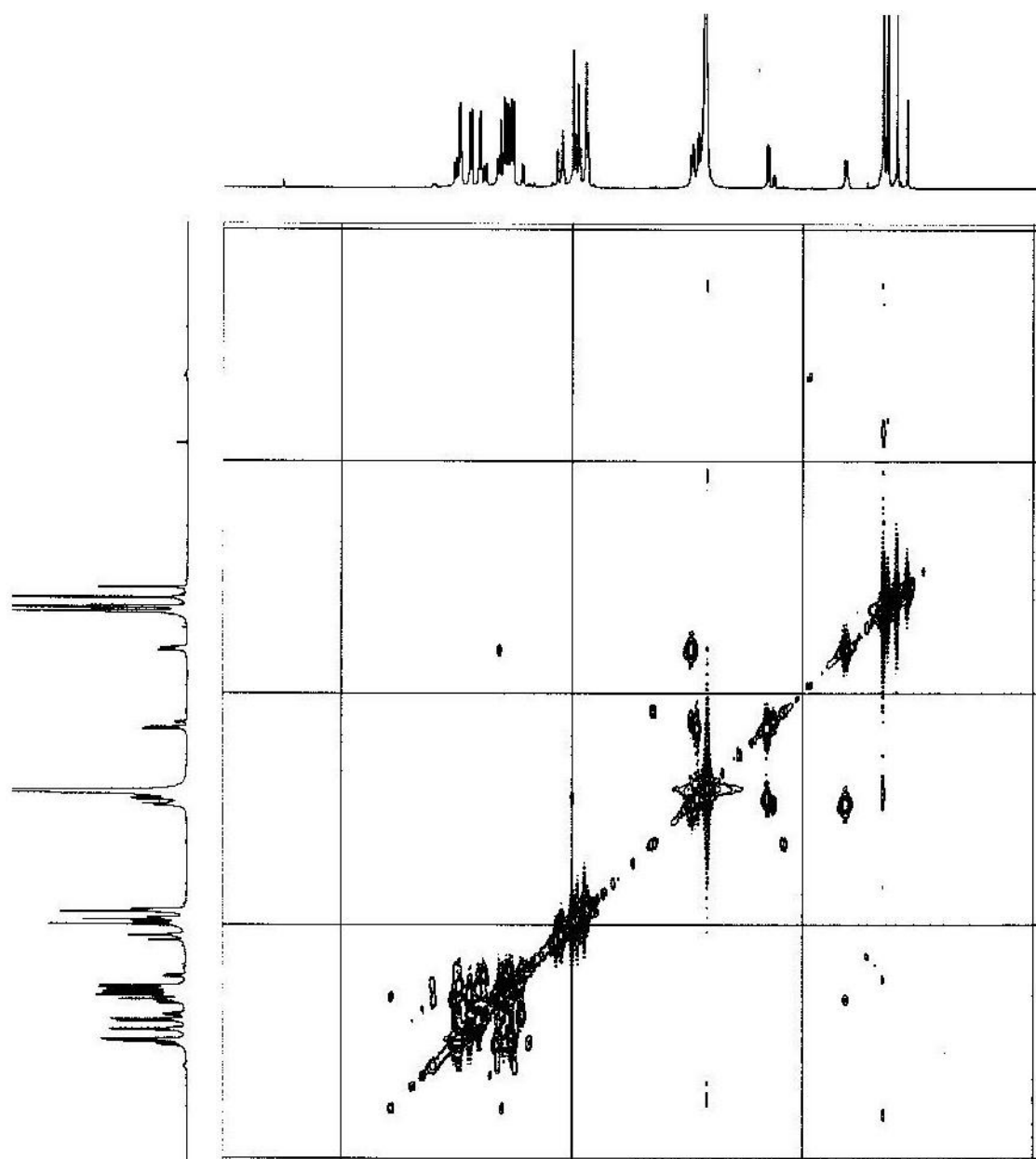
F1 - Acquisition parameters
NUC1         13C
SFO         500.130450 MHz
FIDRES      0.180000 Hz
AQ          1.000000 sec
RG          51.200000 usec

F2 - Processing parameters
SI           1024
SF           500.130450 MHz
WDW          SINE
SSB          0
LB           0.00 Hz
GB           0
PC           1.40

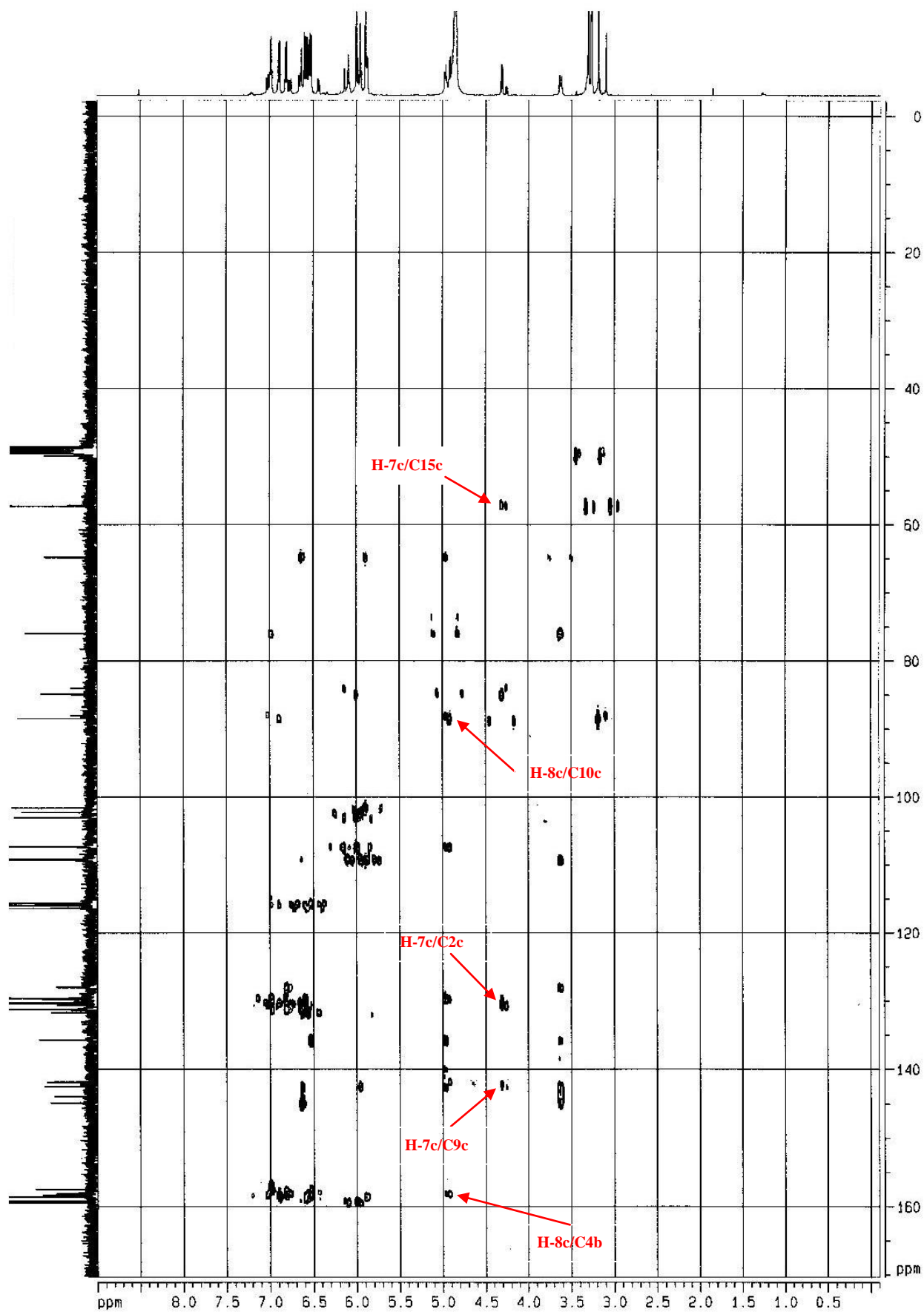
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SF           500.130450 MHz
WDW          SINE
SSB          0
LB           0.00 Hz
GB           0

3D NMR SPCZ parameters
C1D          0.00 Hz
C11         0.00 Hz
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FOLD        0.00000000
FOLH        0.00000000
FOLV        0.00000000
FOLX        0.00000000
FOLY        0.00000000
FOLZ        0.00000000
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FOLX95       0.00000000
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FOLX100      0.00000000
  
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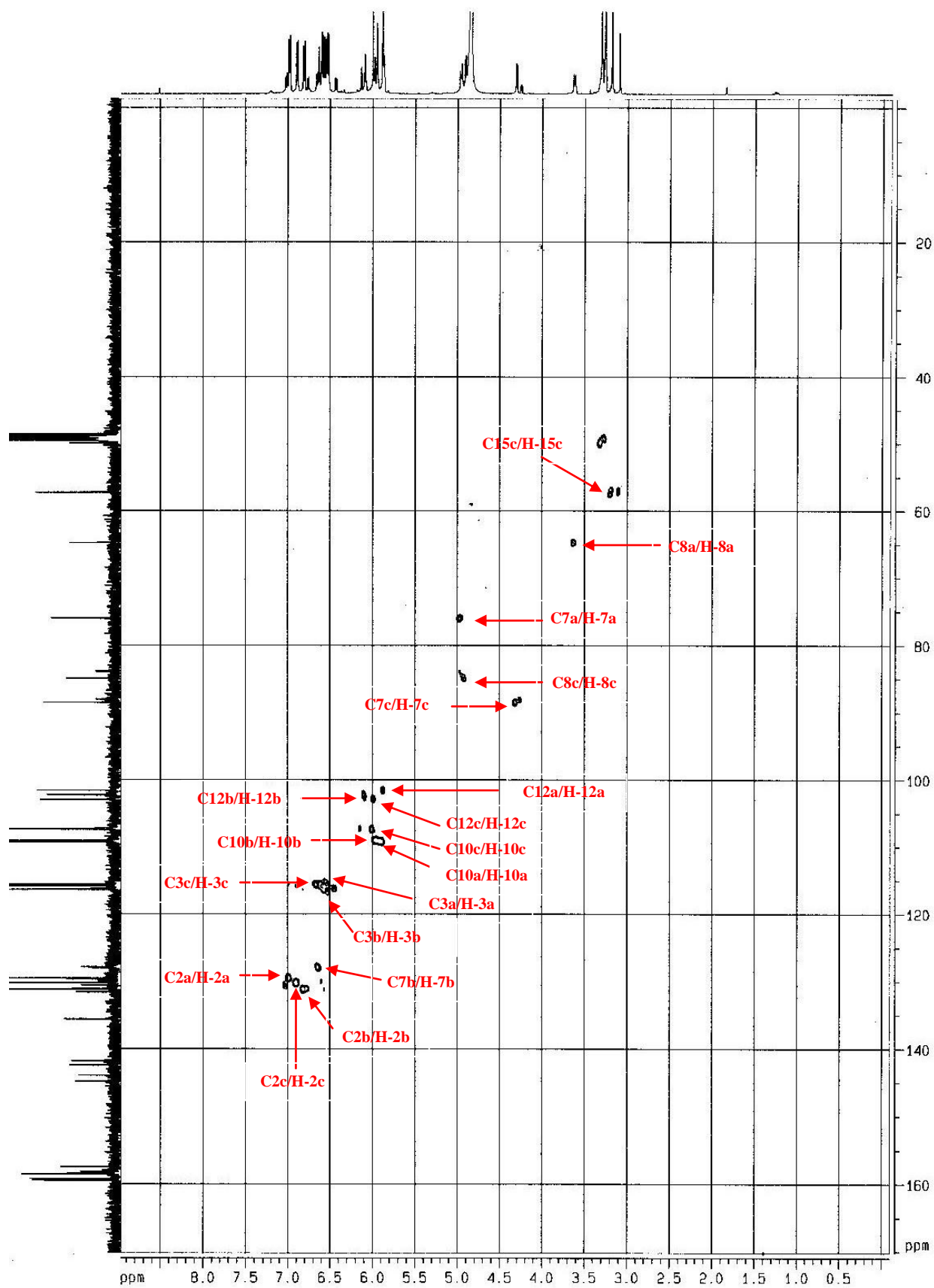
S8: COSY (500 MHz) Spectrum of Quinquangulol (1)



**S9:** Expansion of the COSY Spectrum of Quinquangularol (**1**)

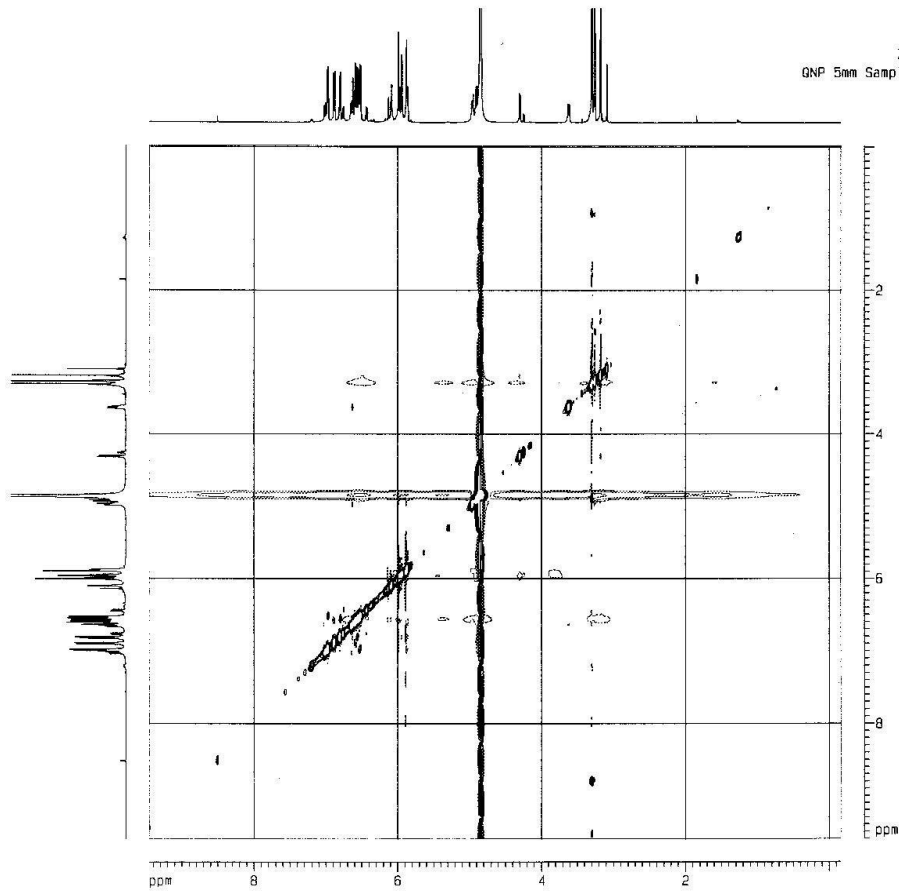


S10: HMBC (500 MHz) Spectrum of Quinquangularol (1)



S11: HMQC (500 MHz) Spectrum of Quinquangularol (1)

Zhejiang University Avance DMX 500  
 GNP 5mm Sample: 96Re-2 in MeOD (pan-08 100S)



```

Current Data Parameters
NAME          pan-08
EXPNO         1005
PROCNO       1

F2 - Acquisition Parameters
Date_        20080607
Time         16:05
INSTRUM      dm500
PROBHD       5 mm GNP 1H/13
PULPROG      zgpg30
TD           2048
SOLVENT      MeOD
NS           32
DS           4
SWH          5462.400 Hz
FIDRES       2.678960 Hz
AQ           0.189180 sec
RG           104
Dw           91.200 usec
DE           6.00 usec
TE           298.2 K
d0           0.0007803 sec
D1           1.5000000 sec
d8           0.5000002 sec
D9           0.0018178 sec
DECOR        0.0000000 sec
MORPH        0.7500000 sec
STICHT       128

***** CHANNEL f1 *****
NUC1         1H
P1           10.10 usec
PL1         4.00 dB
SFO1        500.1324530 MHz

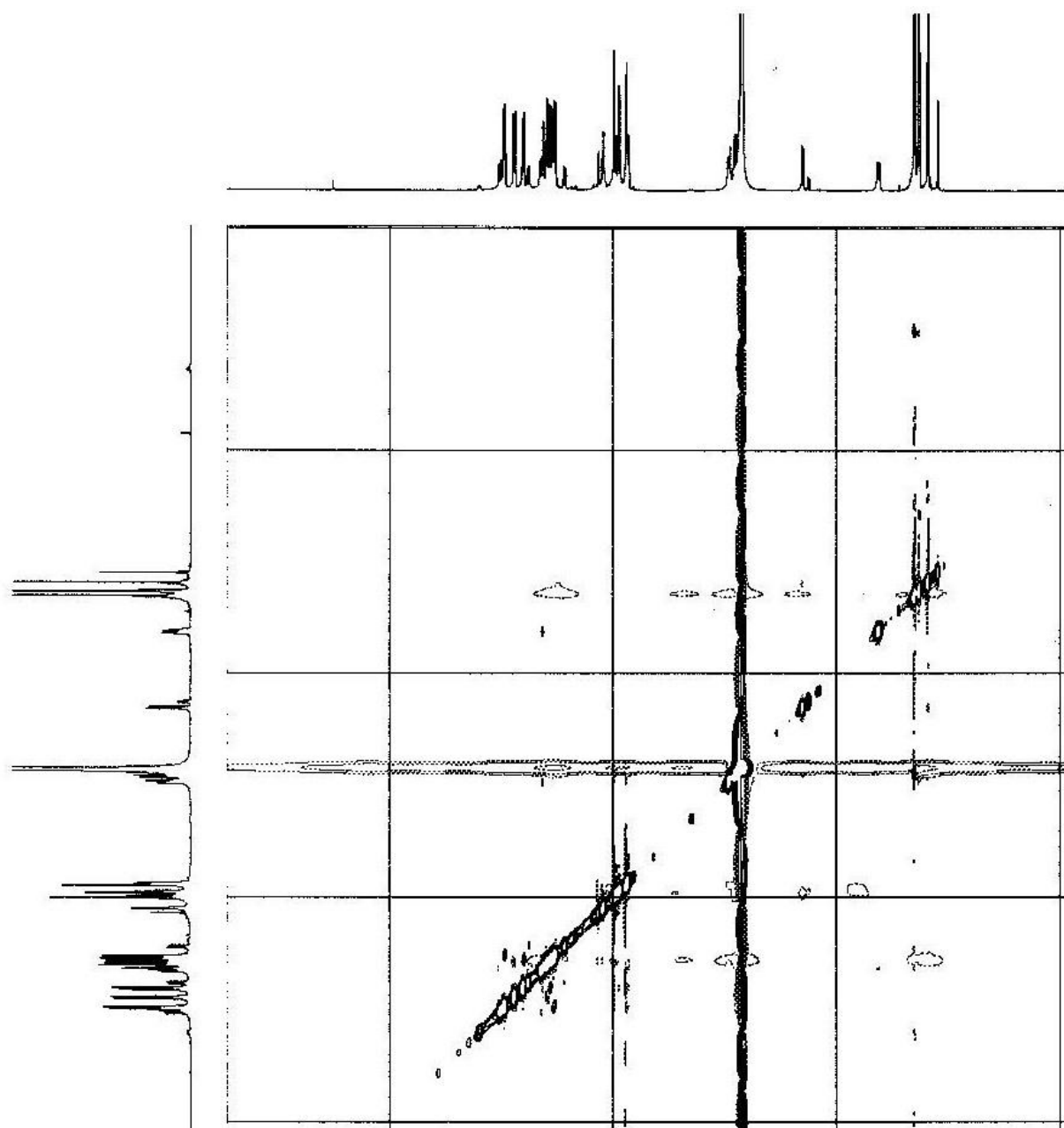
F1 - Acquisition parameters
NUC2         13C
P2           255
SFO2        500.1325 MHz
FIDRES       21.495178 Hz
SFO1         500.1325 MHz
FIDRES       11.000 ppm
FNAME        States-TPPI

F2 - Processing parameters
SI           32768
SF           500.130293 MHz
WDW          EM
SSB          0
LB           0.00 Hz
GB           0
PC           1.00

F1 - Processing parameters
SI           65536
NUC2         States-TPPI
SF           500.130293 MHz
WDW          EM
SSB          0
LB           0
GB           0

2D NMR plot parameters
CH2          15.00 cm
CH1          15.00 cm
F2PLD        9.465 ppm
F2LD         4734.25 Hz
F2PH1        -0.164 ppm
F2PH2        -81.93 Hz
F1PLD        9.904 ppm
F1LD         4885.07 Hz
F1PH1        -0.081 ppm
F1PH2        -10.57 Hz
F2PPMCH     0.84125 ppm/cm
F2HTDCH     350.96074 Hz/cm
F1PPMCH     0.54185 ppm/cm
F1HTDCH     350.96074 Hz/cm
  
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**S12: NOESY (500 MHz) Spectrum of Quinquangulol (1)**



**S13:** Expansion of the NOESY Spectrum of Quinquangularol (**1**)