

Supporting Information

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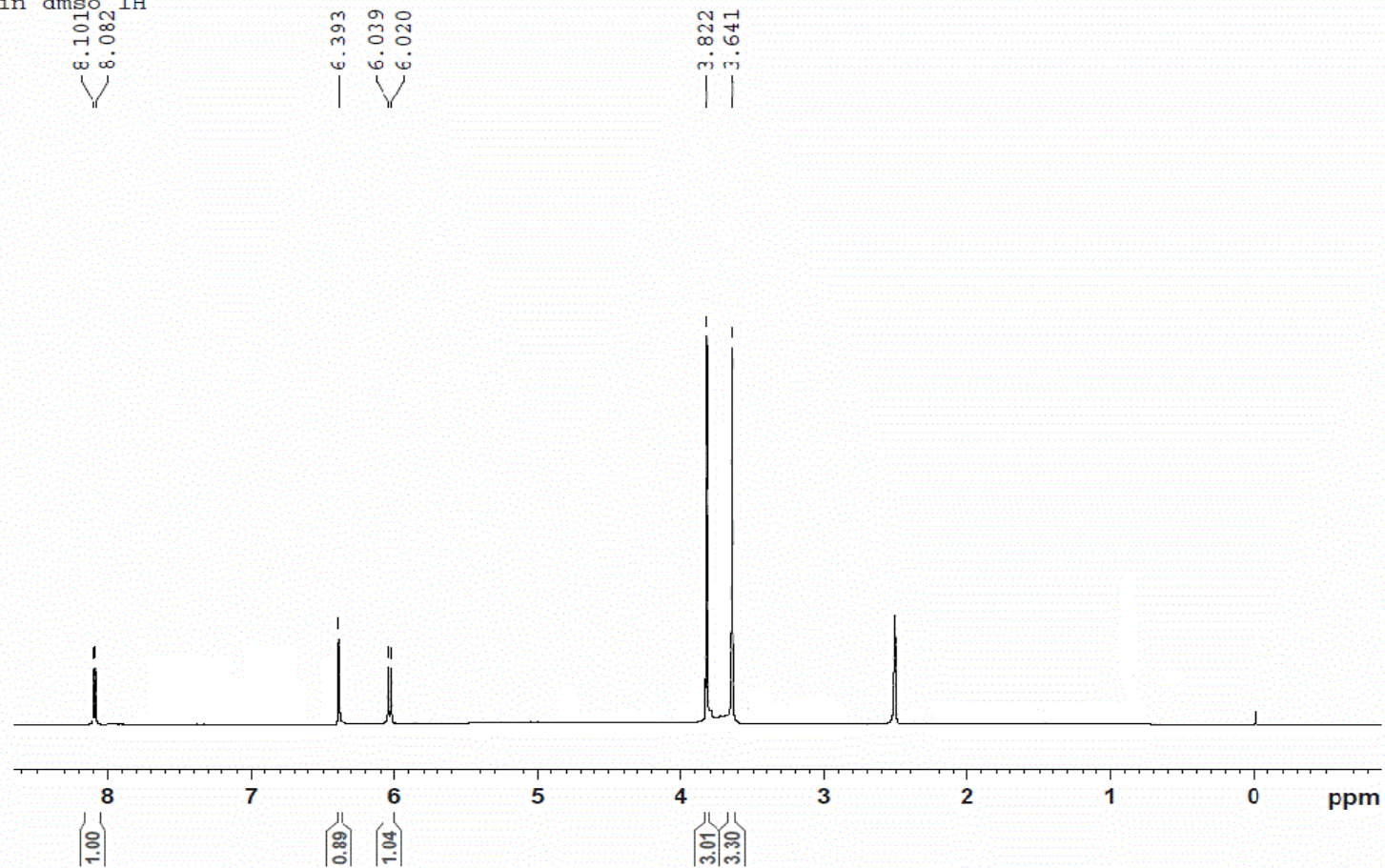
Structural Elucidation of a Coumarin with New Skeleton from *Artemisia ordosica*

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Table of Contents	Page
Figure S1: ¹ H-NMR spectrum of compound 1 (arteordocoumarin A)	2
Figure S2 : ¹³ C-NMR spectrum of compound 1 (arteordocoumarin A)	3
Figure S3 : DEPT spectrum of compound 1 (arteordocoumarin A)	4
Figure S4 : HSQC spectrum of compound 1 (arteordocoumarin A)	6
Figure S5 : HMBC spectrum of compound 1 (arteordocoumarin A)	8
Figure S6 : ¹ H- ¹ H COSY spectrum of compound 1 (arteordocoumarin A)	9
Figure S7 : MS spectrum of compound 1 (arteordocoumarin A)	10

18070802
huangse-2
in dmsco 1H



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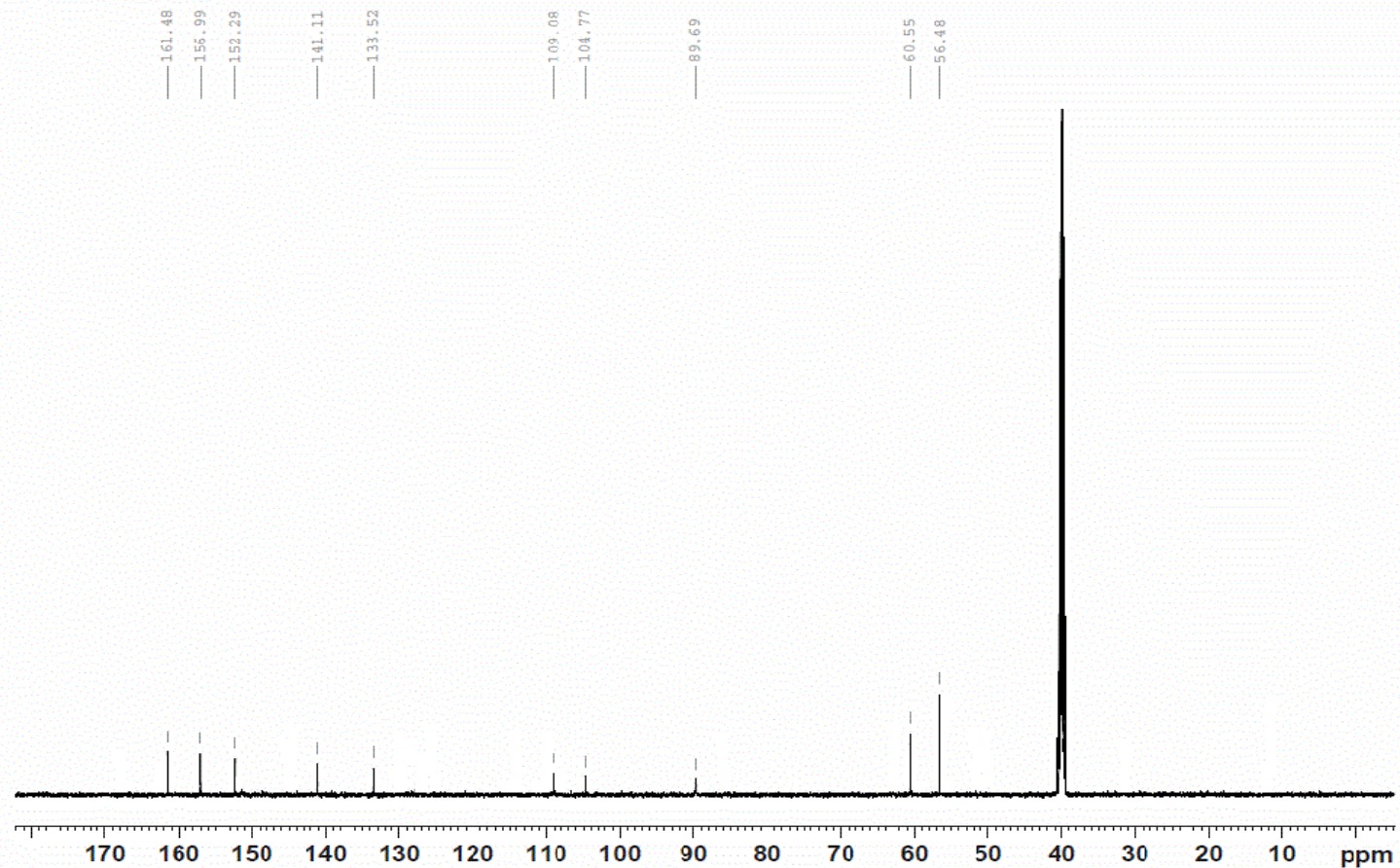
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DS         2
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RG         62.56
RW         50.000 usec
DE         6.50 usec
TE         292.6 K
D1         1.0000000 sec
TDO        1

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NUC1       1H
SI         11.25 usec
PLW1      14.00000000 W

F2 - Processing parameters
SI         65536
SF         500.130000 MHz
WDW        EM
SSB         0
LB         0.30 Hz
GB         0
PC         1.00
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Figure S1: ¹H-NMR spectrum of compound 1 (arteordocoumarin A)

18070802
huangse-2
in dmsO C13CPD



```
Current Data Parameters
NAME      18070802
EXPNO    2
PROCNO   1

===== Acquisition Parameters =====
Date_    20180703
Time     10.03
INSTRUM  spect
PROBHD   5 mm VAMBI/BB/
PULPROG  zgpg30
TD       65536
SOLVENT  DMSO
NS       512
DS       4
SWH      29761.904 Hz
FIDRES   0.424121 Hz
AQ       1.1010043 sec
RG       193.03
AQ       16.800 usec
DE       6.50 usec
TE       299.2 K
TR       4.0000000 sec
TI       n mmmmmmm sec
TDO      103

----- CHANNEL f1 -----
NUC1     13C
P1       5.50 usec
PLM1     75.0000000 W

----- CHANNEL f2 -----
RF02     500.1320000 MHz
PR02     1u
CPOWPC[2]  waltz16
PCPD2    80.00 usec
PLM2     14.0000000 W
PLM3     0.29435000 W
PLM4     0.14805999 W

pp - Processing parameters
SI       32768
SF       125.7577881 MHz
WDW      EM
SSB      0
LB       1.00 Hz
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Figure S2 :¹³C-NMR spectrum of compound 1 (arteordocoumarin A)

18070802
huangse-2
in dmsO C13DEPT135

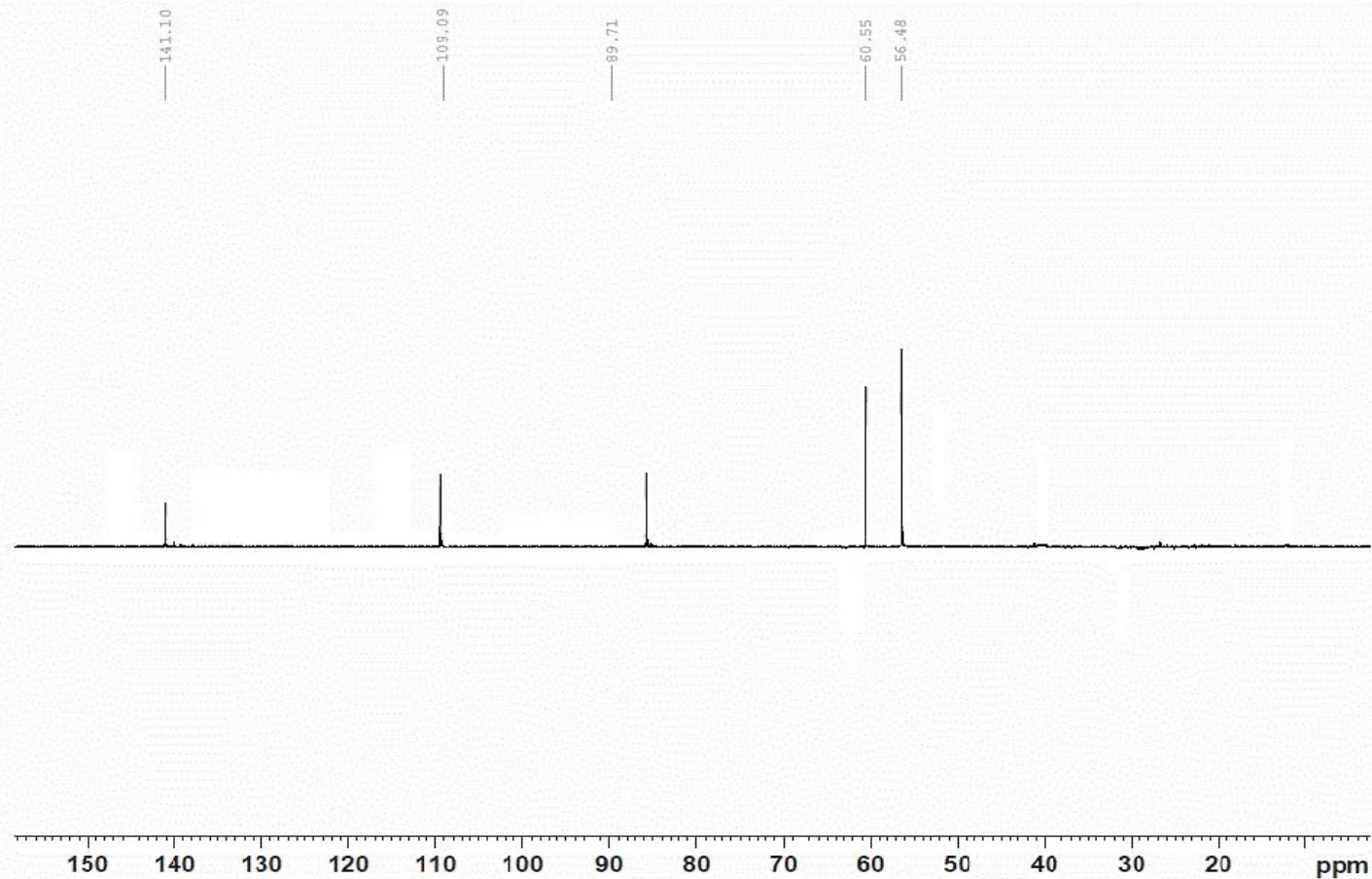
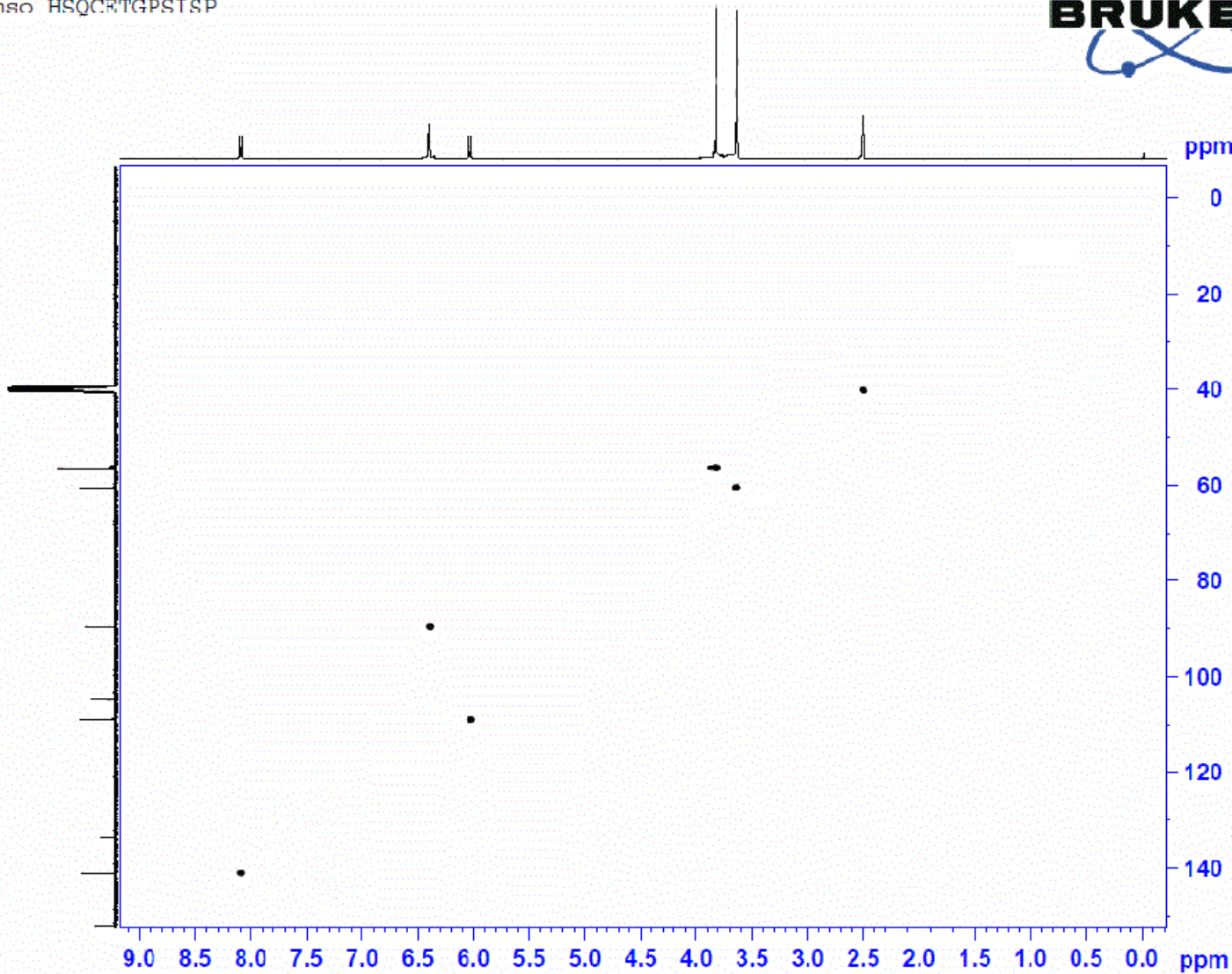


Figure S3 : DEPT spectrum of compound 1 (arteordocoumarin A)

18070802
 huangse-2
 in dmsco HSQCFTGPSTSP



```

Current Date Parameters
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EXPNO     4
PROCNO    1

F2 Acquisition Parameters
Date_     20100702
Time      18.25
INSTRUM   MBESE
PROBHD    5 mm PABBO BB/
PULPROG   zgpg30
TD         65536
SOLVENT   DMSO
NS         16
DS         32
SWH        6000.000 Hz
FIDRES     5.568765 Hz
AQ         0.0511968 sec
RG         313.00
RM         0.23000000
TE         293.0 K
CQ1P1     145.0000000
CQ1P2     0.0000000
D0         1.000000000 sec
D4         1.000000000 sec
D6         1.00172416 sec
D11        1.030000000 sec
SFO1       121.7666000 MHz
SFO2       125.7603160 MHz
===== CHANNEL f1 =====
NUC1       13C
P1         12.00000000 sec
PC         100.00000000 W
===== CHANNEL f2 =====
SFO2       125.7603160 MHz
NUC2       13C
PC1        1.00000000 sec
PC2        1.00000000 sec
PC3        1.00000000 sec
PC4        1.00000000 sec
PC5        1.00000000 sec
PC6        1.00000000 sec
PC7        1.00000000 sec
PC8        1.00000000 sec
PC9        1.00000000 sec
PC10       1.00000000 sec
PC11       1.00000000 sec
PC12       1.00000000 sec
PC13       1.00000000 sec
PC14       1.00000000 sec
PC15       1.00000000 sec
PC16       1.00000000 sec
PC17       1.00000000 sec
PC18       1.00000000 sec
PC19       1.00000000 sec
PC20       1.00000000 sec
PC21       1.00000000 sec
PC22       1.00000000 sec
PC23       1.00000000 sec
PC24       1.00000000 sec
PC25       1.00000000 sec
PC26       1.00000000 sec
PC27       1.00000000 sec
PC28       1.00000000 sec
PC29       1.00000000 sec
PC30       1.00000000 sec
PC31       1.00000000 sec
PC32       1.00000000 sec
PC33       1.00000000 sec
PC34       1.00000000 sec
PC35       1.00000000 sec
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PC37       1.00000000 sec
PC38       1.00000000 sec
PC39       1.00000000 sec
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PC41       1.00000000 sec
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PC67       1.00000000 sec
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PC69       1.00000000 sec
PC70       1.00000000 sec
PC71       1.00000000 sec
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PC76       1.00000000 sec
PC77       1.00000000 sec
PC78       1.00000000 sec
PC79       1.00000000 sec
PC80       1.00000000 sec
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PC82       1.00000000 sec
PC83       1.00000000 sec
PC84       1.00000000 sec
PC85       1.00000000 sec
PC86       1.00000000 sec
PC87       1.00000000 sec
PC88       1.00000000 sec
PC89       1.00000000 sec
PC90       1.00000000 sec
PC91       1.00000000 sec
PC92       1.00000000 sec
PC93       1.00000000 sec
PC94       1.00000000 sec
PC95       1.00000000 sec
PC96       1.00000000 sec
PC97       1.00000000 sec
PC98       1.00000000 sec
PC99       1.00000000 sec
PC100      1.00000000 sec

===== GRABBER CHANNEL =====
GRAB1[1]  2MSQ10.100
GRAB2[2]  2MSQ10.100
GRAB3[3]  2MSQ10.100
GRAB4[4]  2MSQ10.100
OP11      80.00 Hz
OP12      20.10 Hz
OP13      11.00 Hz
OP14      4.00 Hz
OP15      1000.00 usec
OP16      600.00 usec

F1 - Acquisition parameters
SI         32768
SF         121.7666000 MHz
FIDRES     0.142534 Hz
WDW        EM
SSB         0
RG         313.00
AQ         0.0511968 sec
RG         313.00
PC         100.00000000 W
TE         293.0 K

F2 - Processing parameters
SI         32768
SF         121.7666000 MHz
WDW        EM
SSB         0
RG         313.00
AQ         0.0511968 sec
RG         313.00
PC         100.00000000 W
TE         293.0 K
  
```

18070802
 huangse-2
 in dmsc HSQCRTGPSTSP

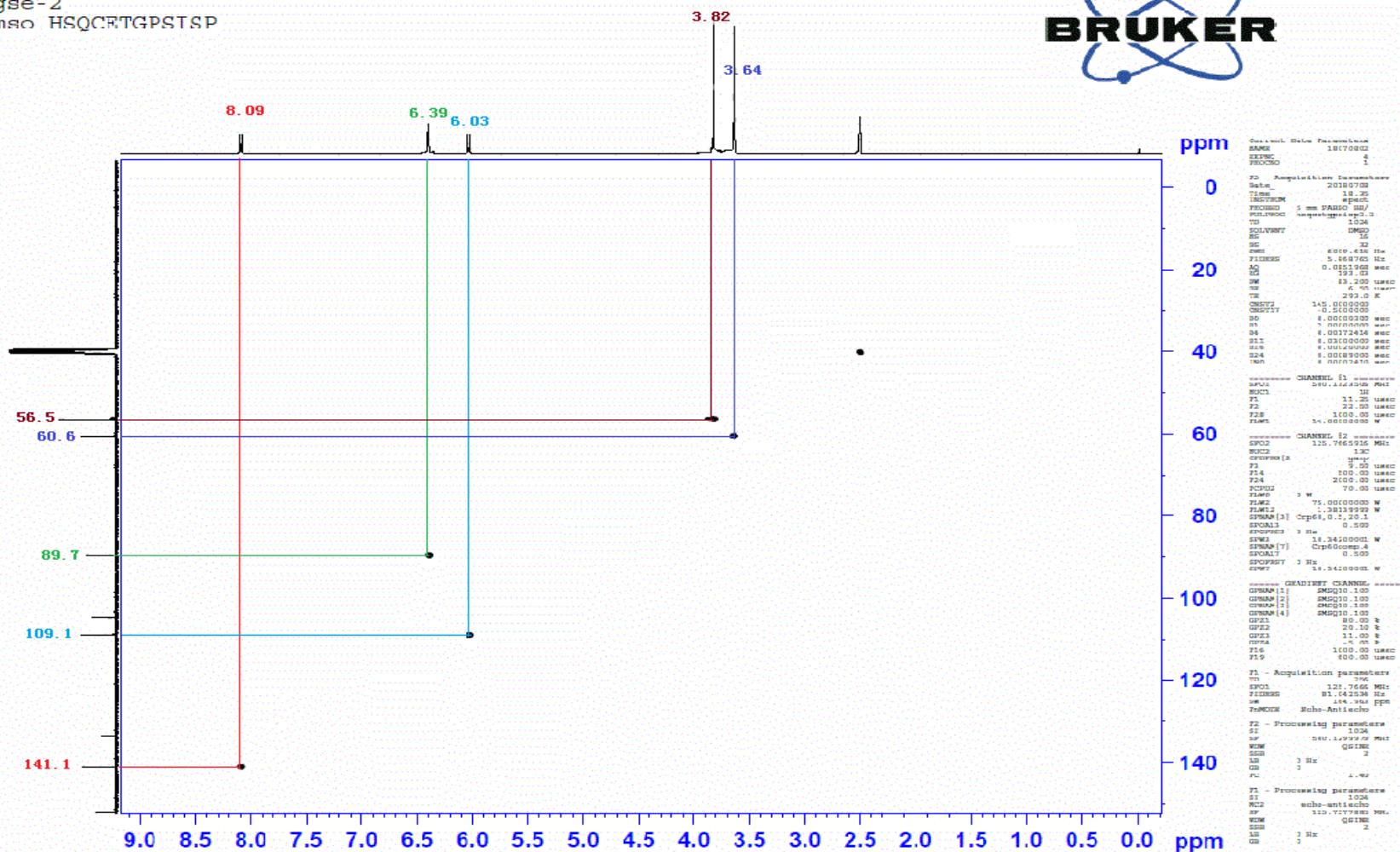
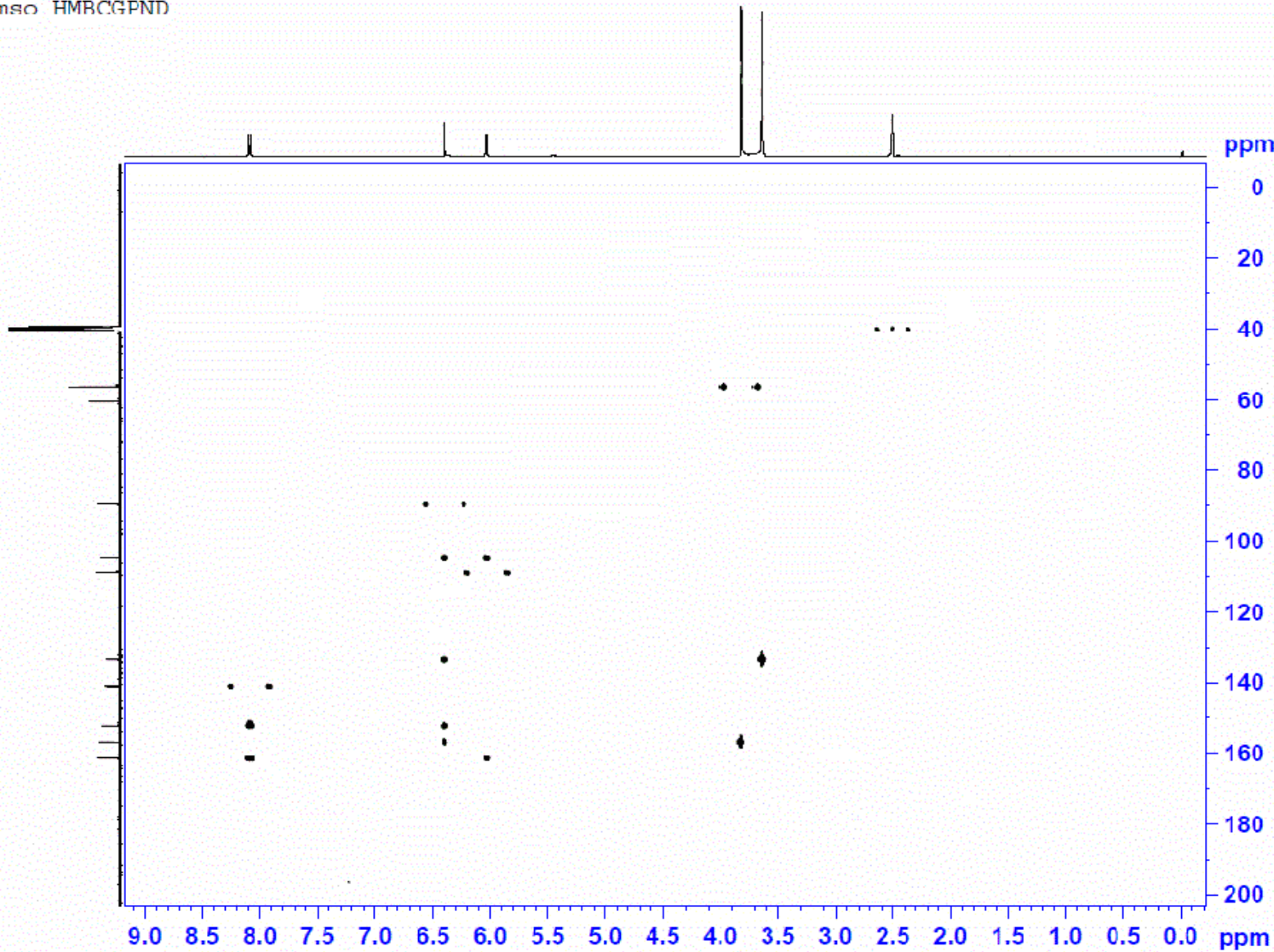


Figure S4 : HSQC spectrum of compound 1 (arteordocoumarin A)

18070802
 huangse-2
 in dmsd HMBCGPND



```

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PROCNO   1

F2 - Acquisition Parameters
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Time
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PULPROG  hmcgpgdgc
TD
SOLVENT  DMSO
NS       16
DS       16
SWH      6666.667 Hz
FIDRES   1.627604 Hz
AQ       0.3073000 sec
RG        191.03
DW       75.000 usec
DE       6.50 usec
TE       29.4 K
CNET13   0.0000000
D0       0.0000000 sec
D1       1.0000000 sec
D6       0.96250000 sec
P1A      0.0000000 sec
IND      0.0001790 sec

----- CHANNEL f1 -----
SFO1     500.1330669 MHz
NUC1      13
P1        11.25 usec
P2        22.50 usec
PLM1     14.0000000 W

----- CHANNEL f2 -----
SFO2     125.7701443 MHz
NUC2      13C
P3        9.50 usec
PLM2     75.0000000 W

----- GRADIENT CHANNEL -----
GPRAM[1]  SMSQ10.100
GPRAM[2]  SMSQ10.100
GPRAM[3]  SMSQ10.100
GPZ1      50.00 %
GPZ2      30.00 %
GPZ3      40.10 %
P16       1000.00 usec

F1 - Acquisition parameters
TD        256
SFO1     125.7703 MHz
FIDRES    109.11129 Hz
CW        333.0000000 MHz
PRMCHOR   0

F2 - Processing parameters
SI        4096
SF        500.1299939 MHz
WDW       SINE
SSB       0
GB        0 Hz
PC        1.40

F1 - Processing parameters
SI        1024
MCZ       0
SF        125.757885 MHz
WDW       SINE
SSB       0
GB        0 Hz
  
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18070802
 huangse-2
 in dmsc HMBCPND

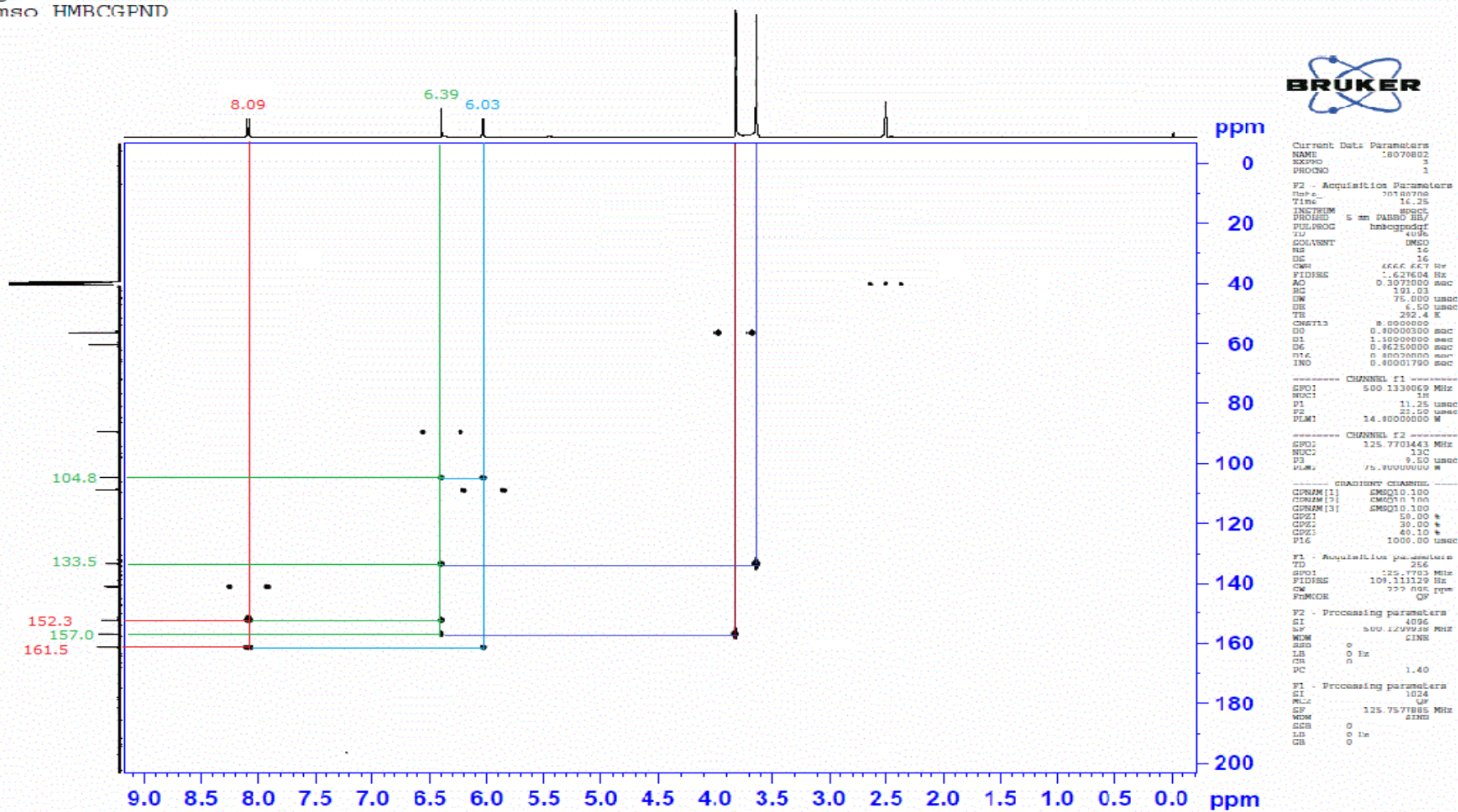


Figure S5 : HMBC spectrum of compound 1 (arteordocoumarin A)

18070802
huangse-2
in dmsO COSYGMFSW

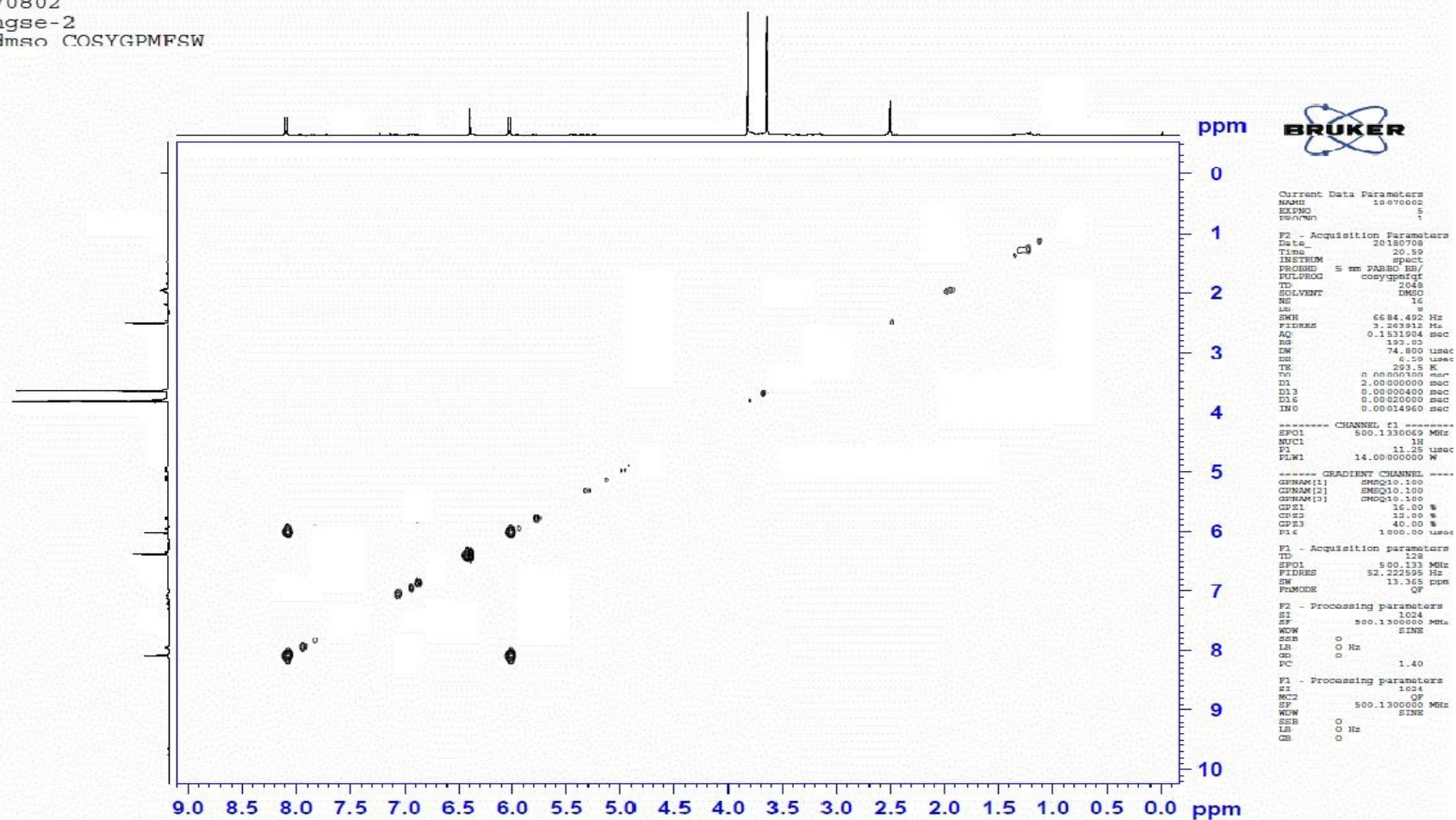


Figure S6 : ^1H - ^1H COSY spectrum of compound 1 (arteordocoumarin A)

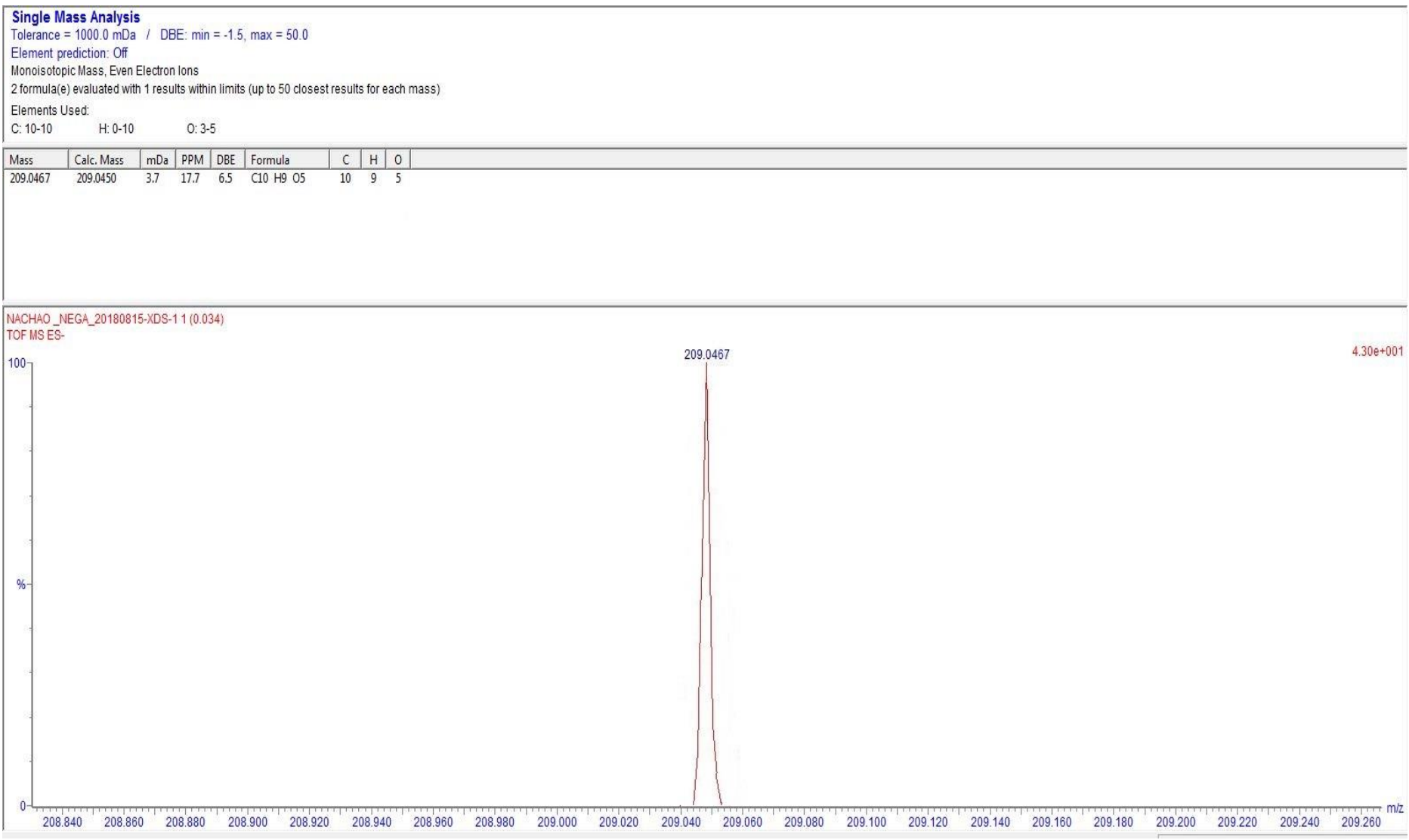


Figure S7 : MS spectrum of compound **1** (arteordocoumarin A)