

Supplementary Materials: Five New Biphenanthrenes from *Cremastra appendiculata*

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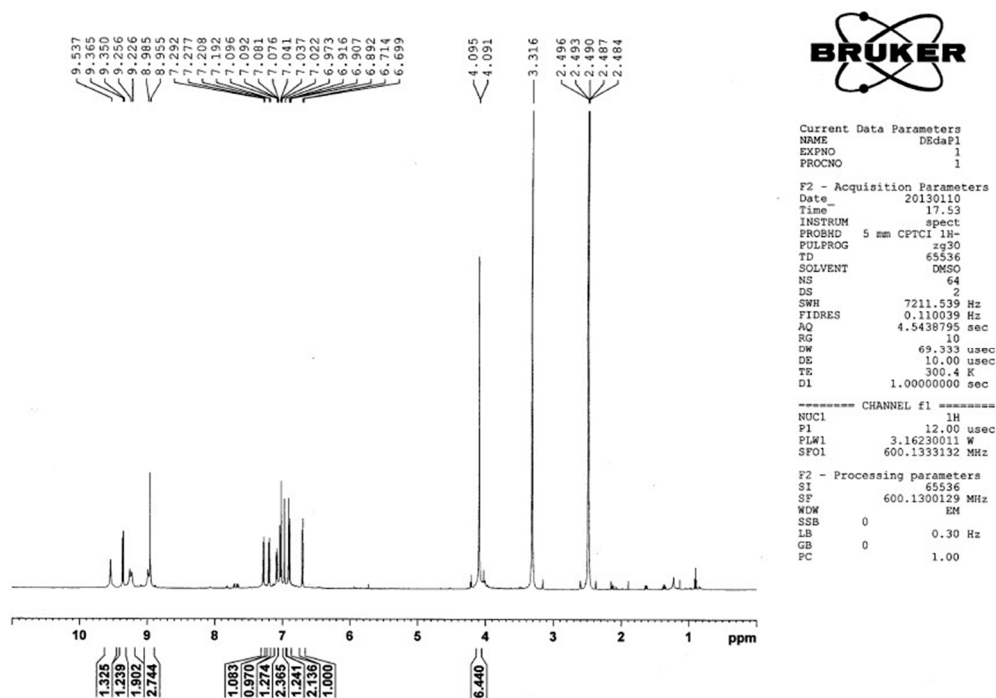


Figure S1. ¹H-NMR spectrum of compound 1.

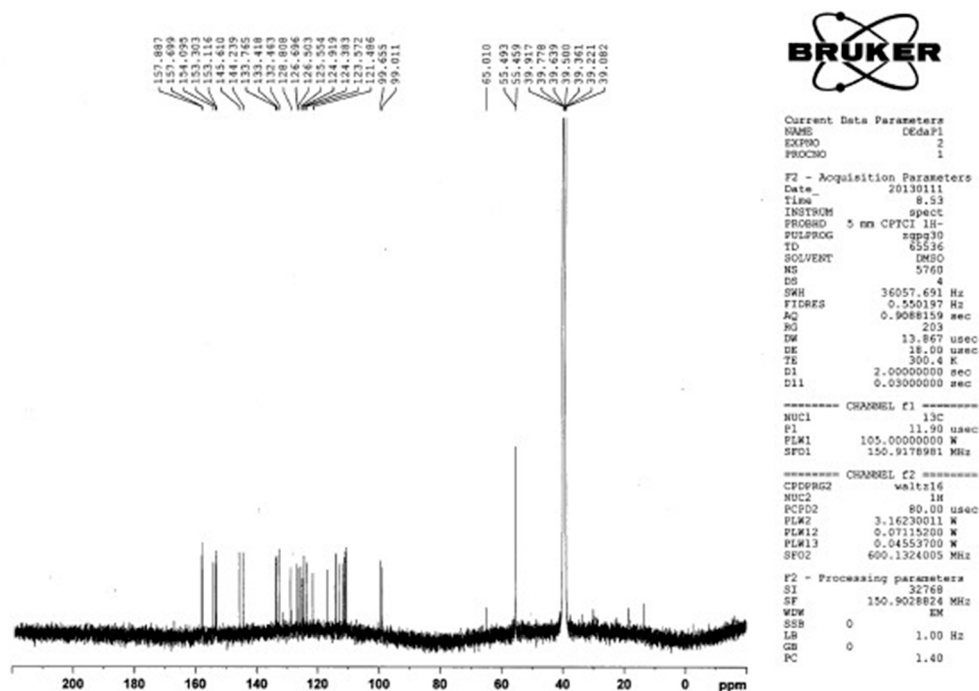


Figure S2. ¹³C-NMR spectrum of compound 1.

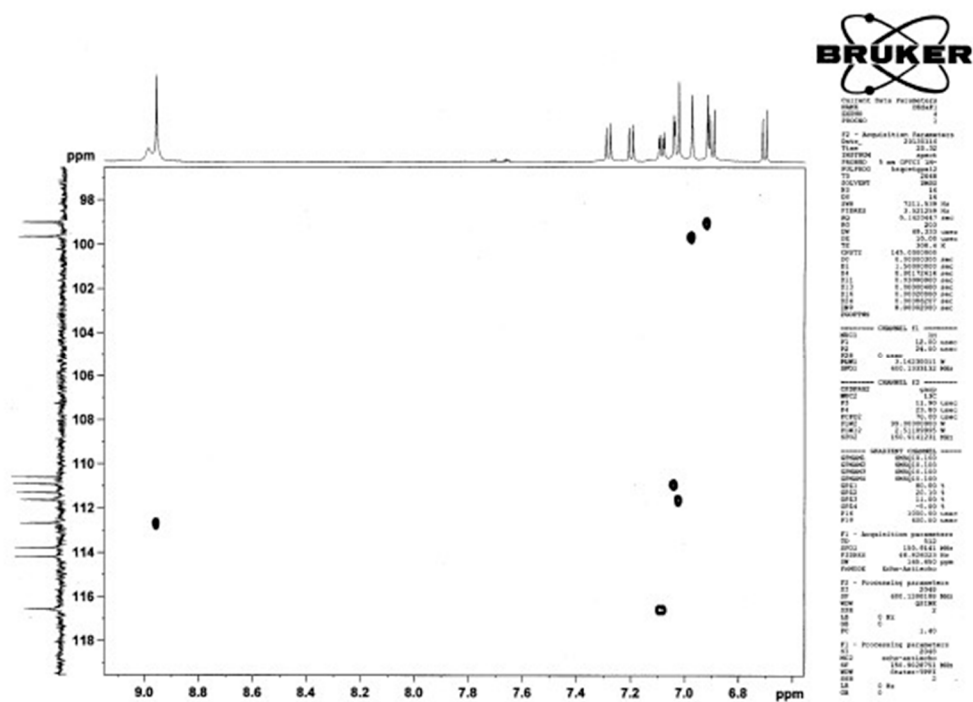
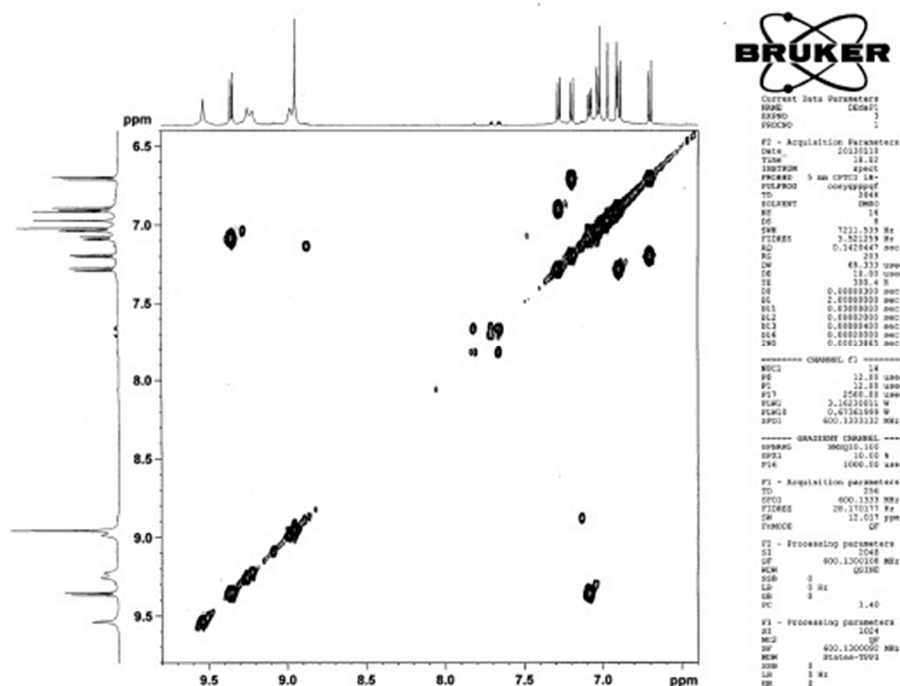


Figure S3. HSQC spectrum of compound 1.

Figure S4. ^1H - ^1H COSY spectrum of compound 1.

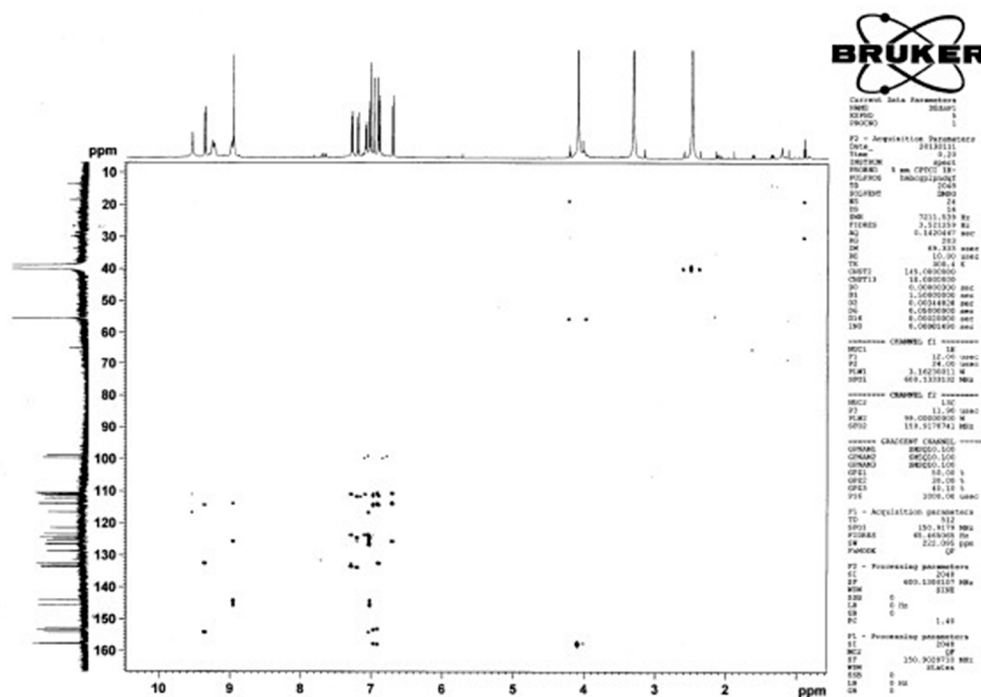


Figure S5. HMBC spectrum of compound **1**.

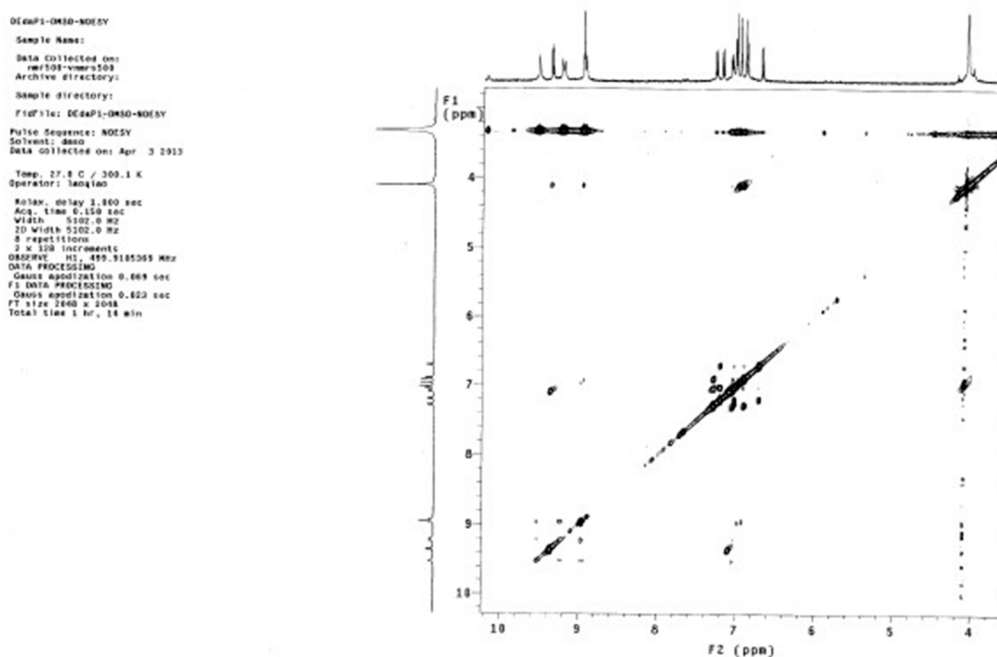


Figure S6. NOESY spectrum of compound 1.

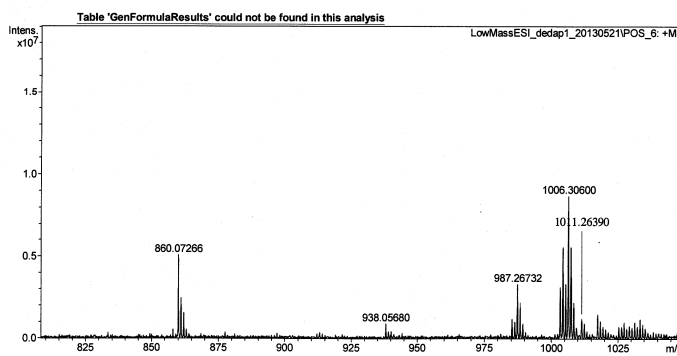
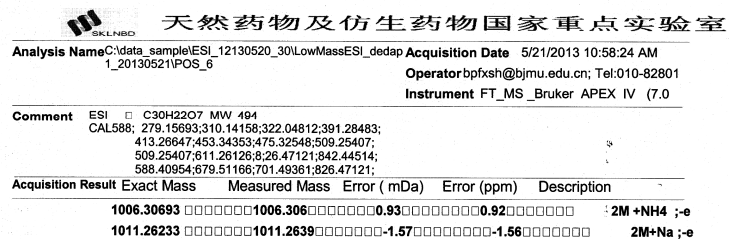
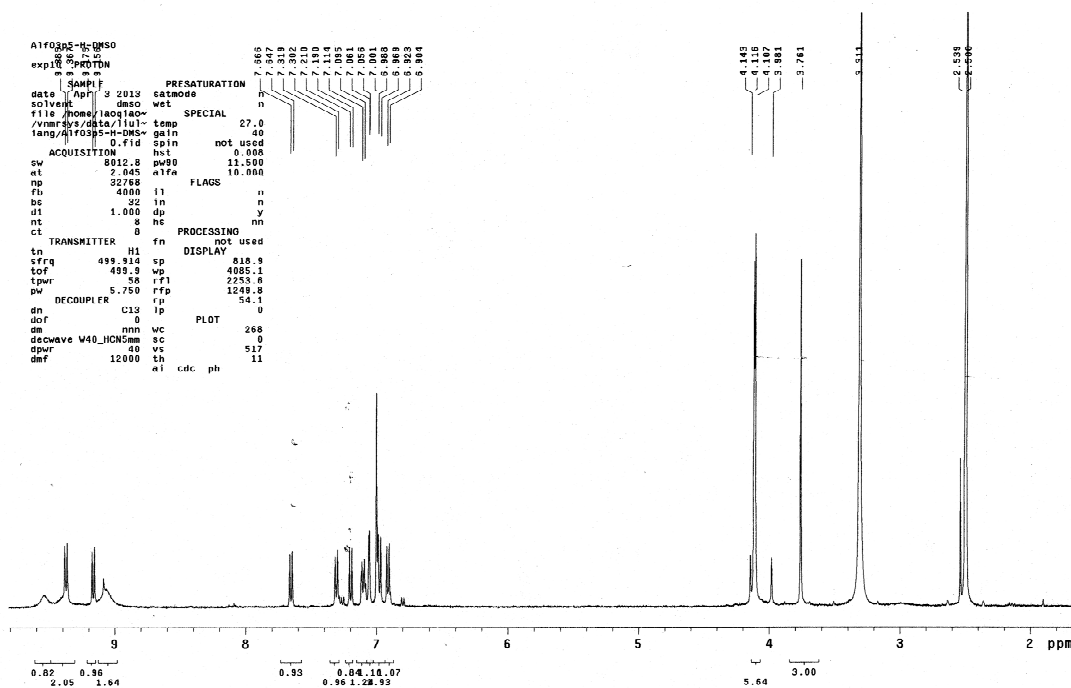


Figure S7. HR-ESI-MS spectrum of compound 1.

Figure S8. ¹H-NMR spectrum of compound 2.

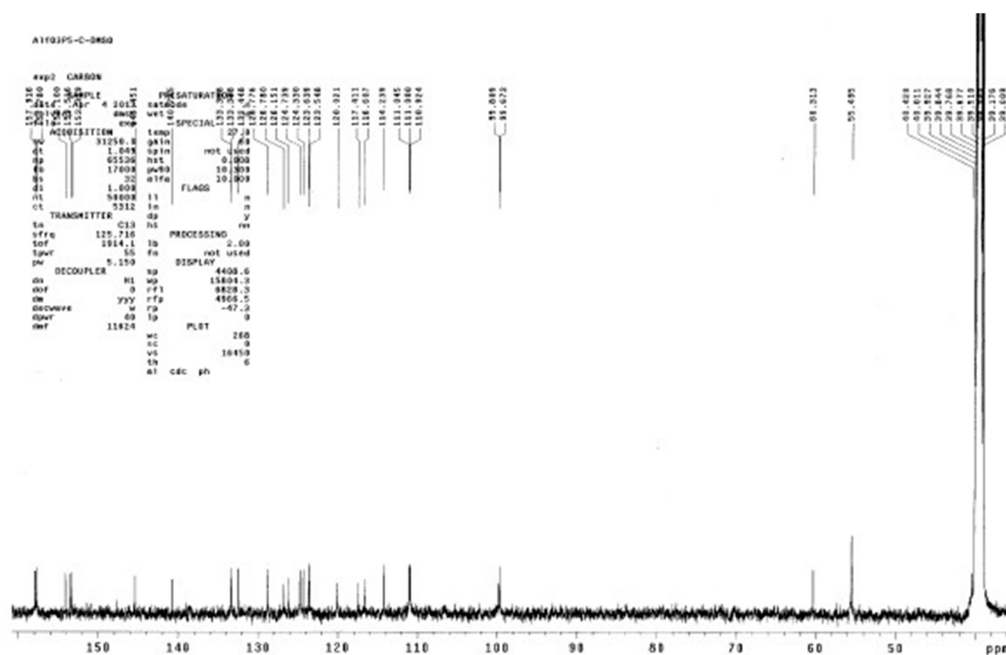
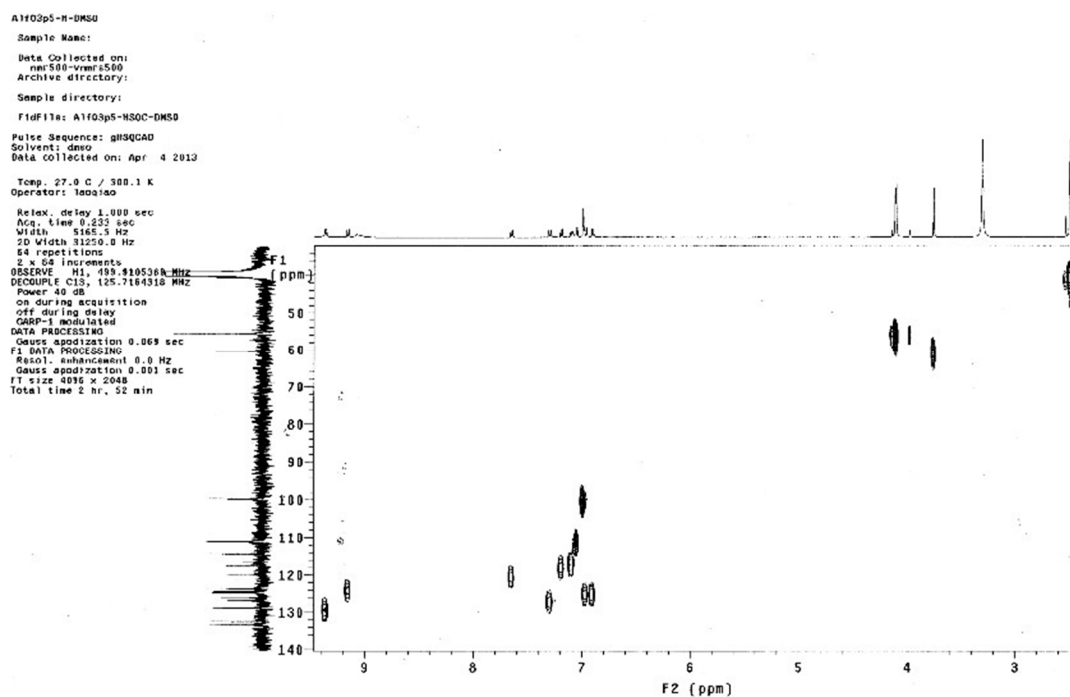
Figure S9. ^{13}C -NMR spectrum of compound 2

Figure S10. HSQC spectrum of compound 2.

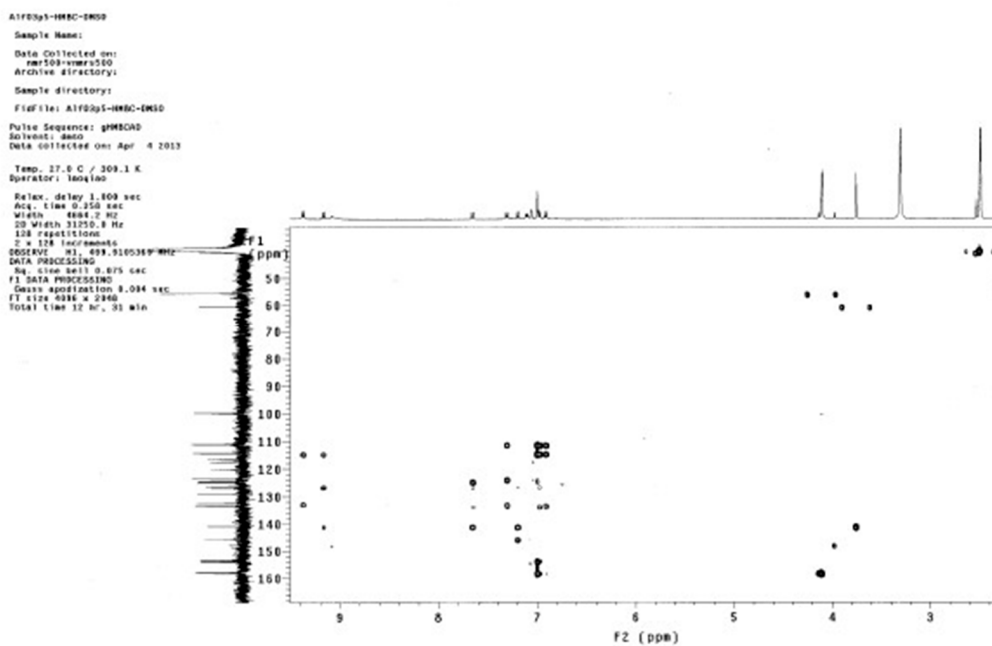


Figure S11. HMBC spectrum of compound 2.

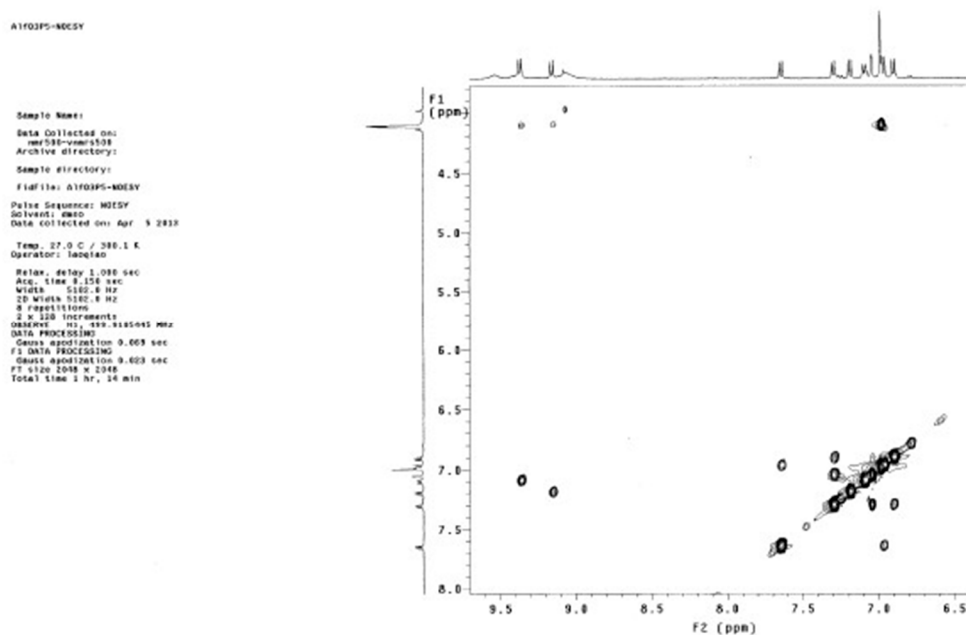


Figure S12. NOESY spectrum of compound 2.

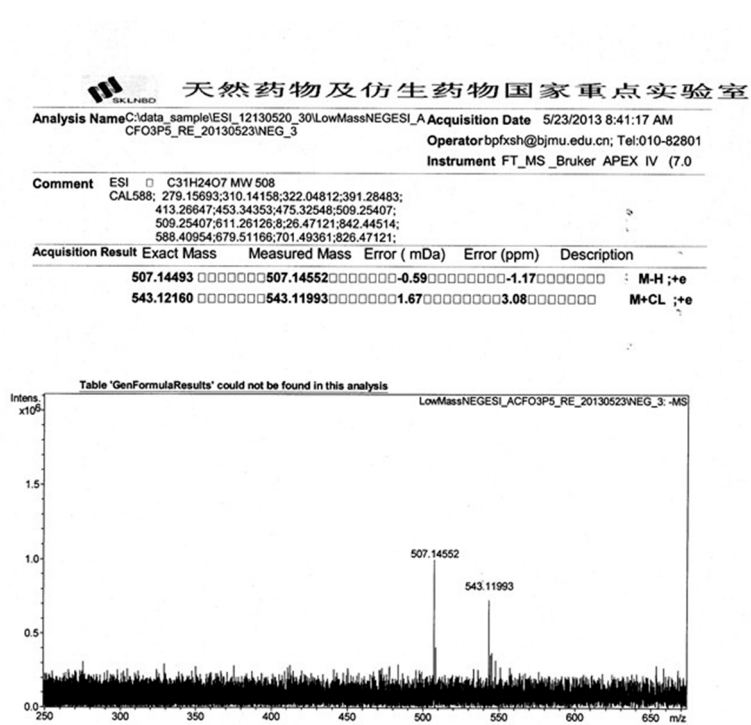
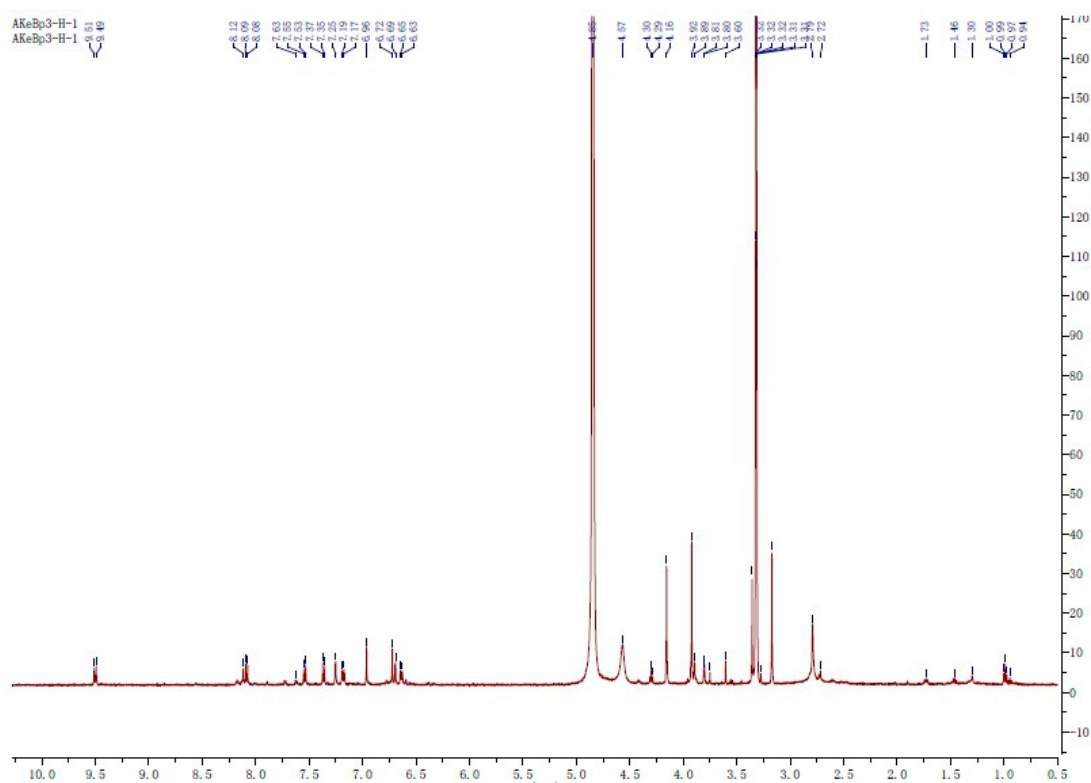


Figure S13. HR-ESI-MS spectrum of compound 2.

Figure S14. ¹H-NMR spectrum of compound 3.

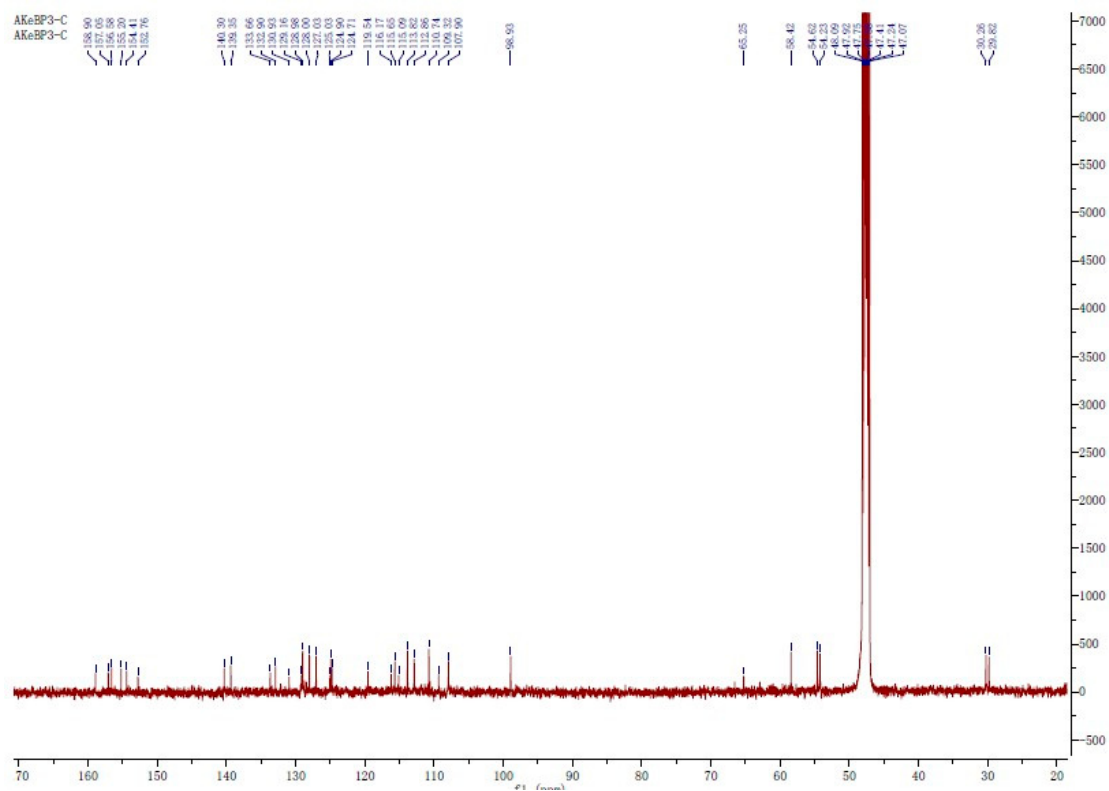


Figure S15. ¹³C-NMR spectrum of compound 3.

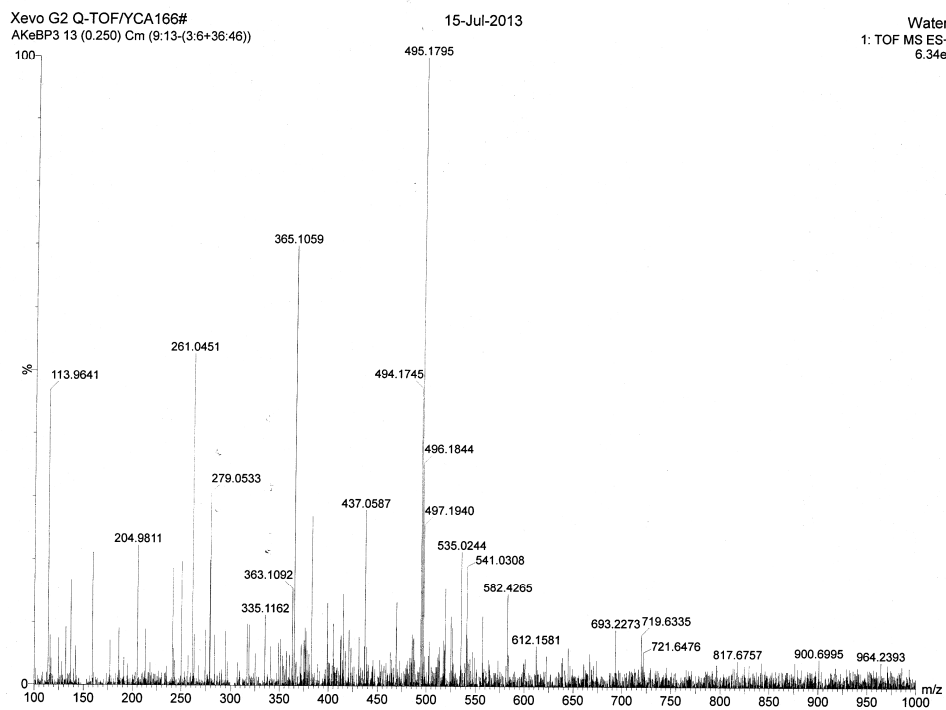
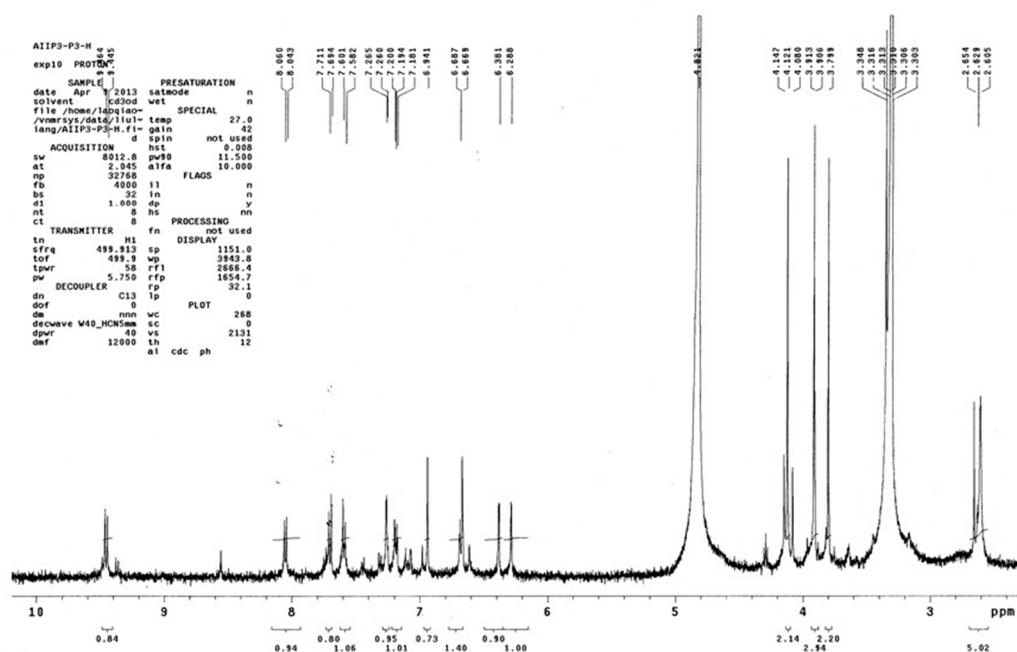
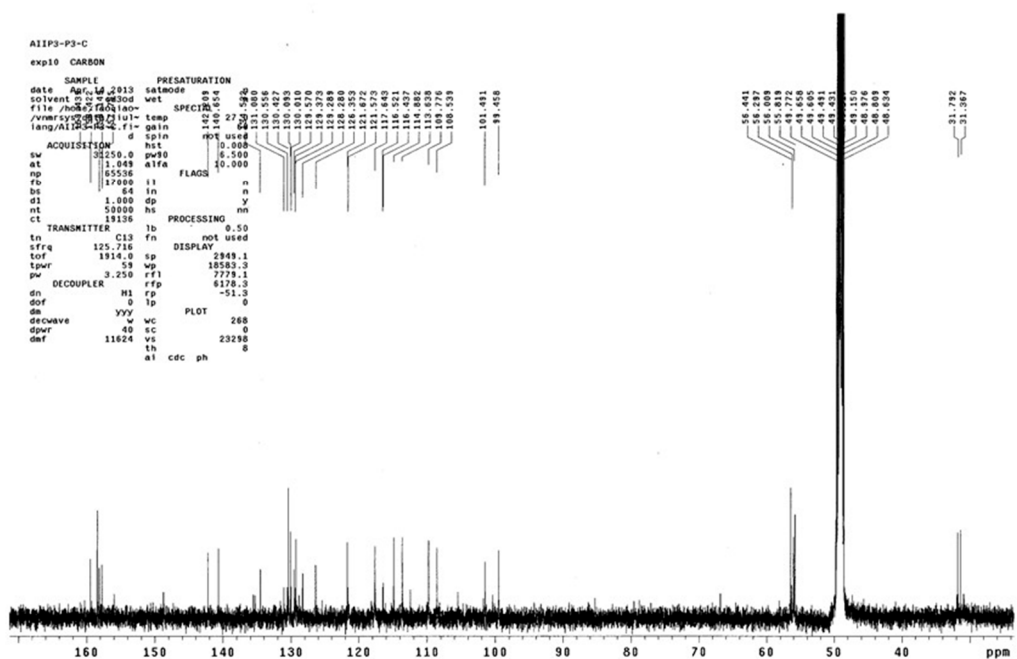


Figure S16. HR-ESI-MS spectrum of compound 3.

Figure S17. ^1H -NMR spectrum of compound 4.Figure S18. ^{13}C -NMR spectrum of compound 4.

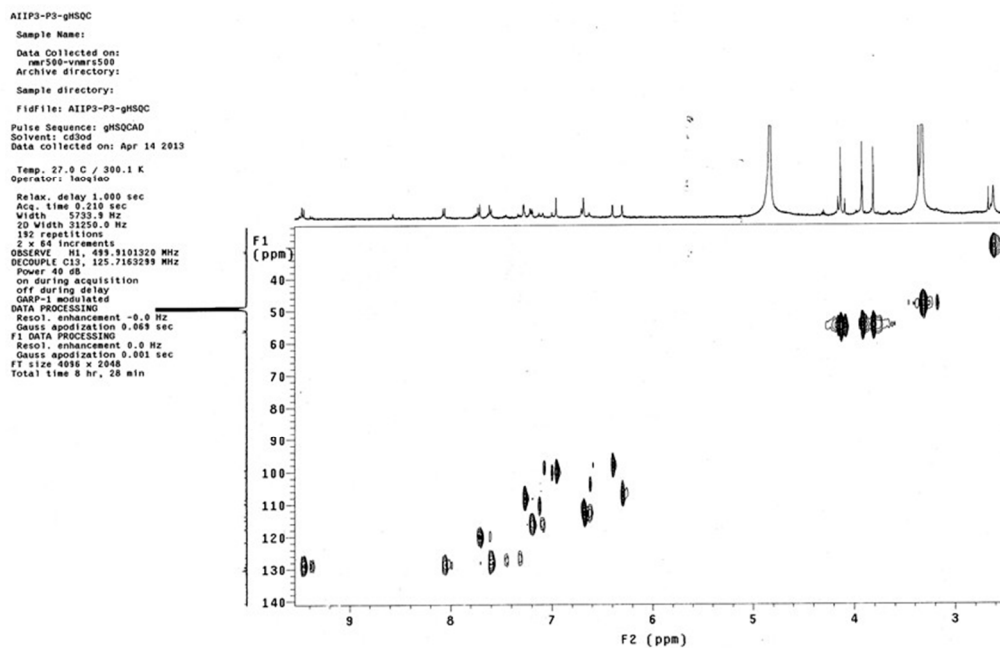


Figure S19. HSQC spectrum of compound 4.

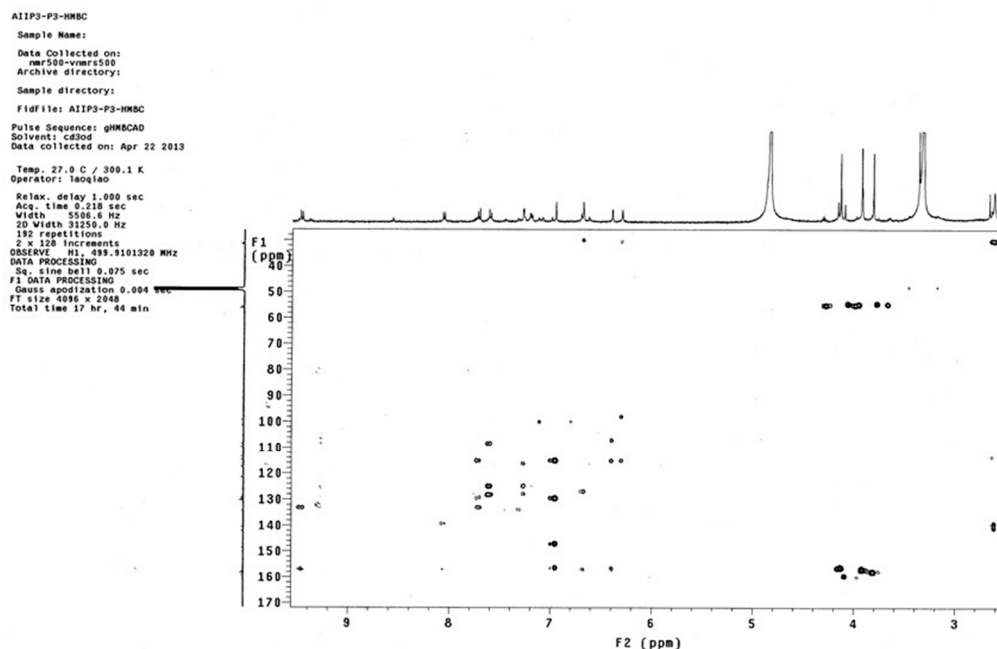


Figure S20. HMBC spectrum of compound 4.

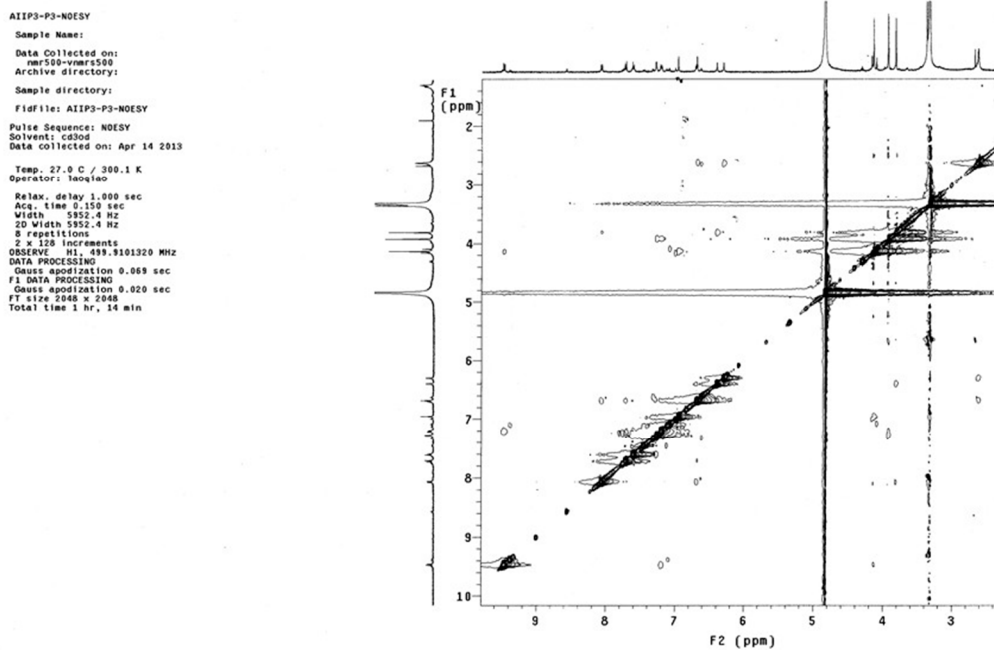


Figure S21. NOESY spectrum of compound 4.

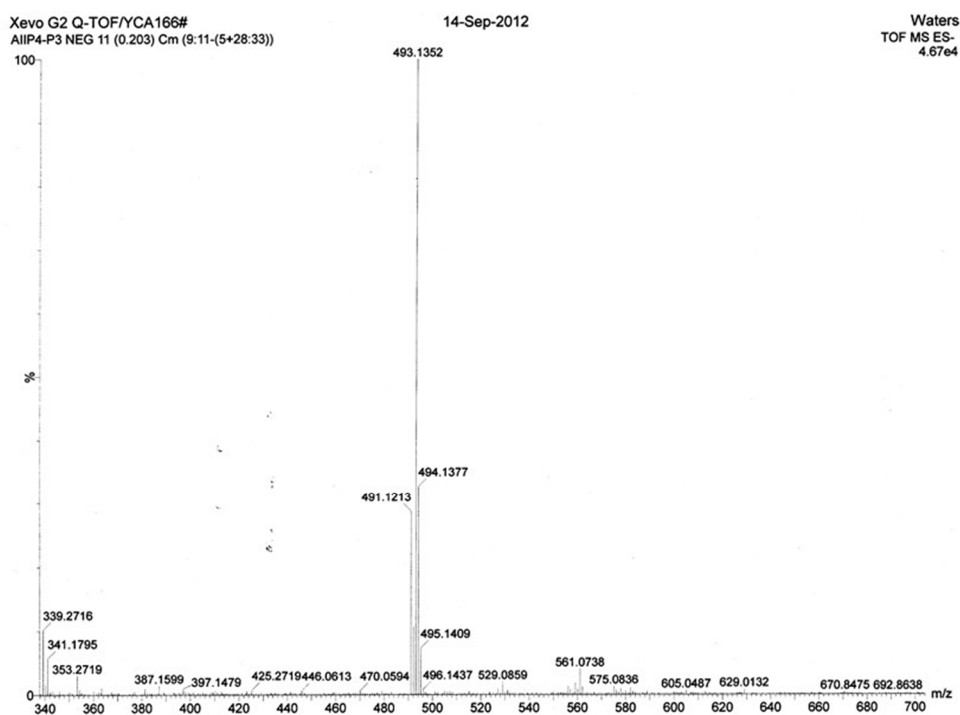


Figure S22. ESI-MS spectrum of compound 4.

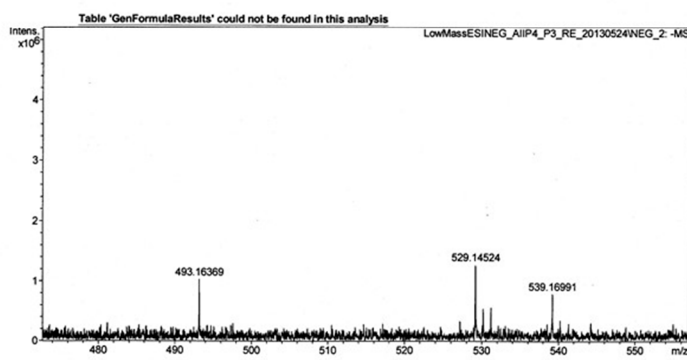
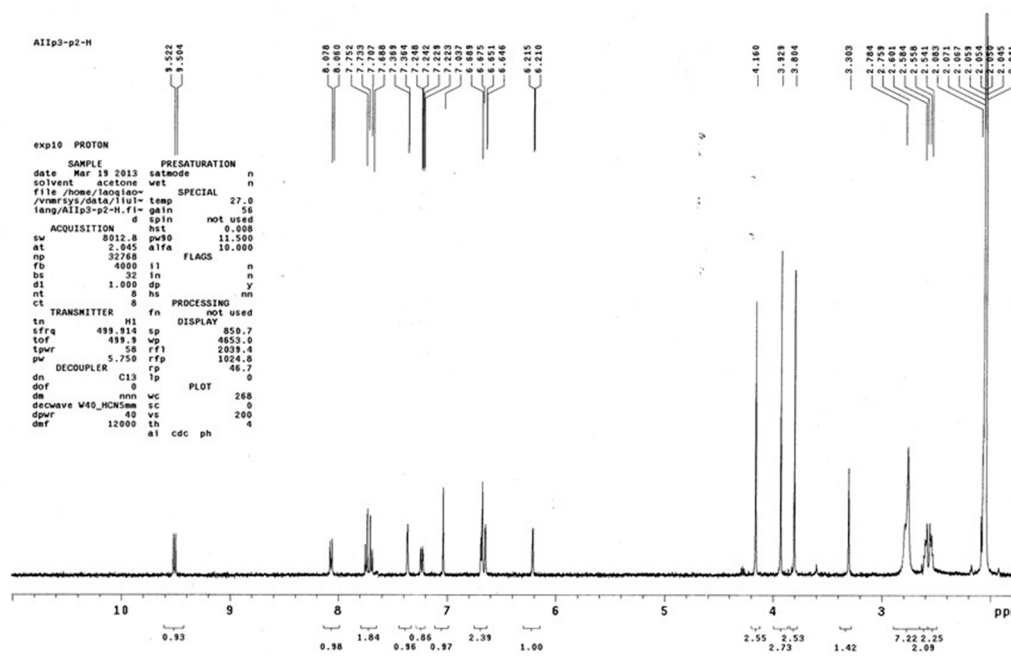


Figure S23. HR-ESI-MS spectrum of compound 4.

Figure S24. ¹H-NMR spectrum of compound 5.

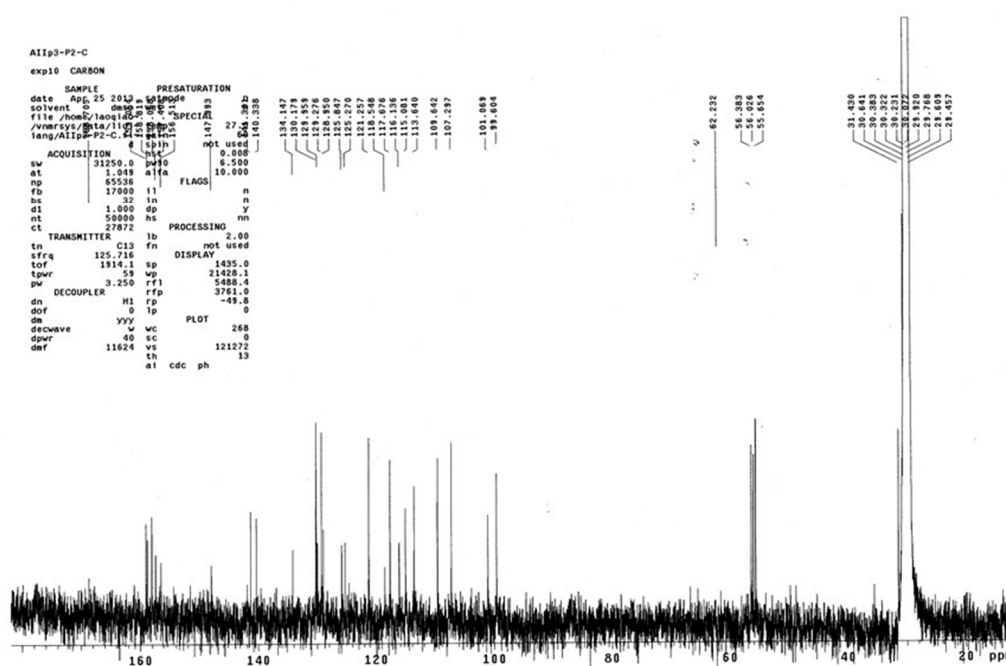
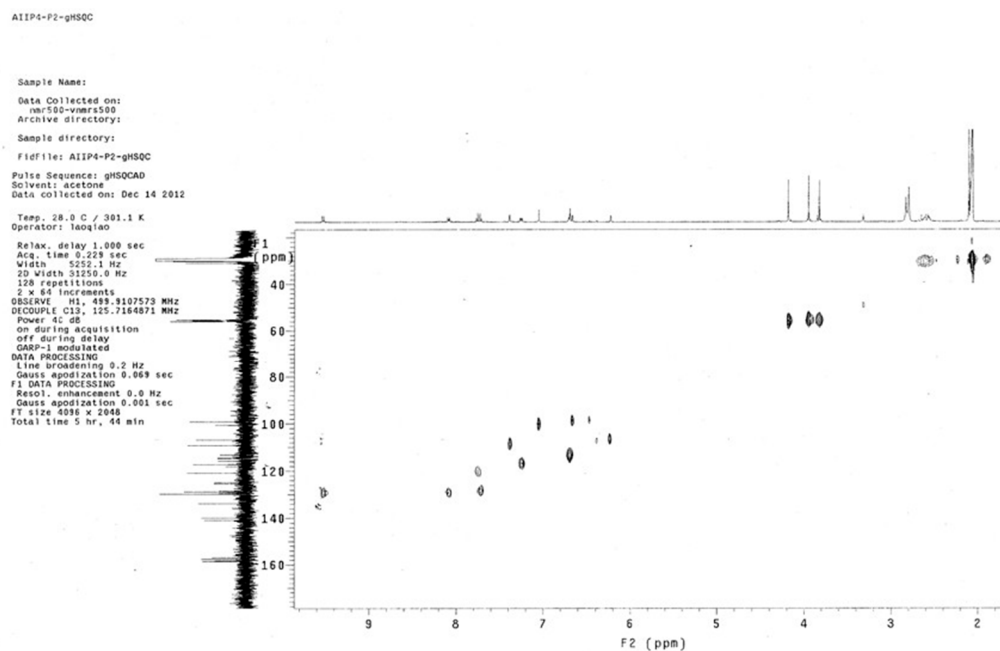
Figure S25. ^{13}C -NMR spectrum of compound 5.

Figure S26. HSQC spectrum of compound 5.

AlIp3-p2-gHMBC

Sample Name:
Data Collected on:
nmr500-vmr5500
Archive directory:
Sample directory:
Fidfile: AlIp3-p2-gHMBC
Pulse Sequence: gHMBCAD
Solvent: acetone
Data collected on: Apr 26 2013
Temp: 27.0 C / 300.1 K
Operator: laojiao
Relax. delay 1.000 sec
Acq. time 0.223 sec
Width 5307.8 Hz
2D Width 31250.0 Hz
132 repetitions
2 x 128 increments
OBSERVE H1: 499.9107645 MHz
DATA PROCESSING
Ss: sine bell 0.075 sec
F1 DATA PROCESSING
Gauss apodization 0.004 sec
FT size 4096 x 2048
Total time 17 hr, 48 min

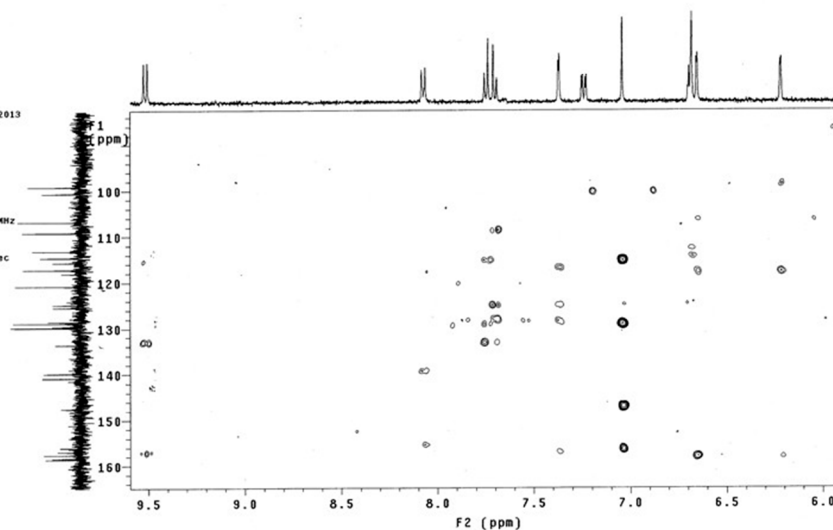


Figure S27. HMBC spectrum of compound 5.

AlIp3-p2-NOESY

Sample Name:
Data Collected on:
nmr500-vmr5500
Archive directory:
Sample directory:
Fidfile: AlIp3-p2-NOESY
Pulse Sequence: NOESY
Solvent: acetone
Data collected on: Apr 4 2013
Temp: 27.0 C / 300.1 K
Operator: laojiao
Relax. delay 1.000 sec
Acq. time 0.150 sec
Width 5681.0 Hz
2D Width 5681.0 Hz
16 repetitions
2 x 200 increments
OBSERVE H1: 499.9107645 MHz
DATA PROCESSING
Gauss apodization 0.069 sec
F1 DATA PROCESSING
Gauss apodization 0.032 sec
FT size 2048 x 2048
Total time 3 hr, 52 min

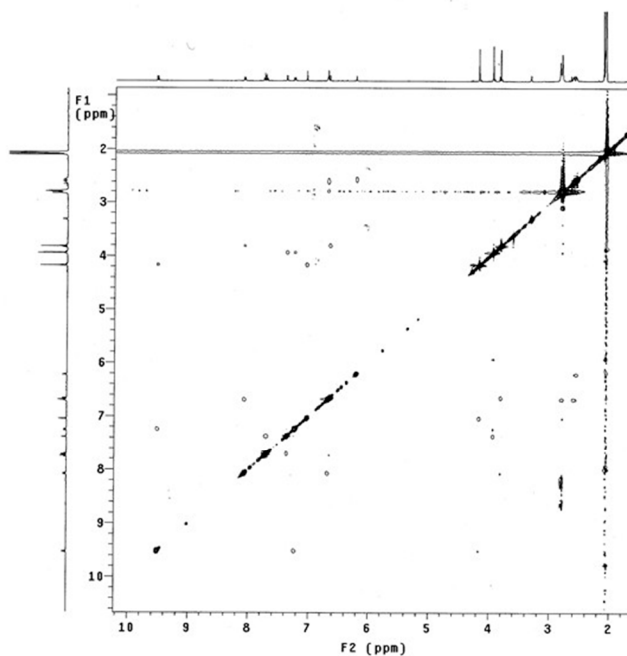


Figure S28. NOESY spectrum of compound 5.

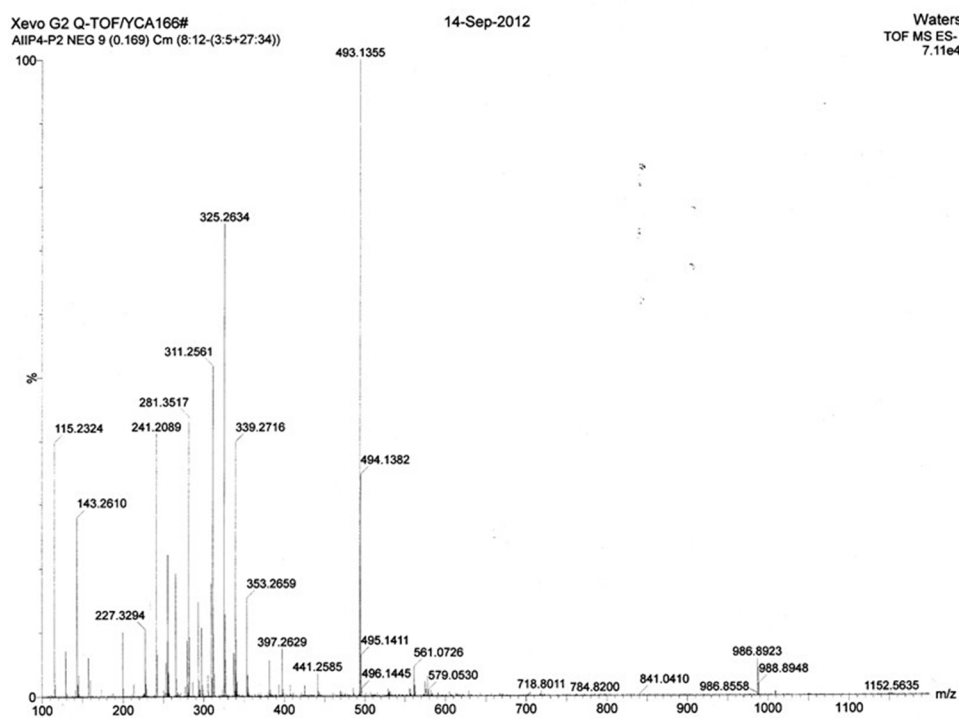


Figure S29. ESI-MS spectrum of compound 5.

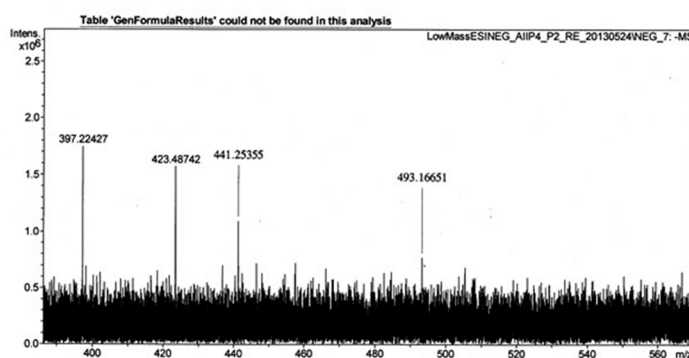
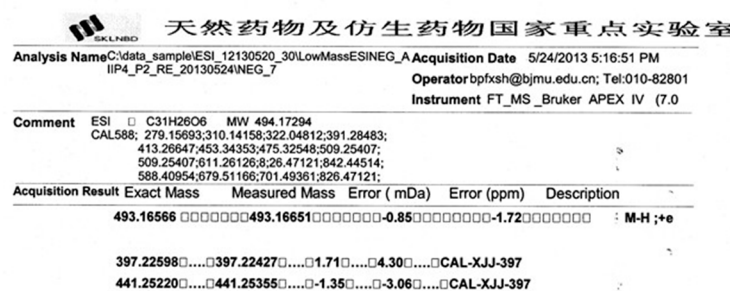
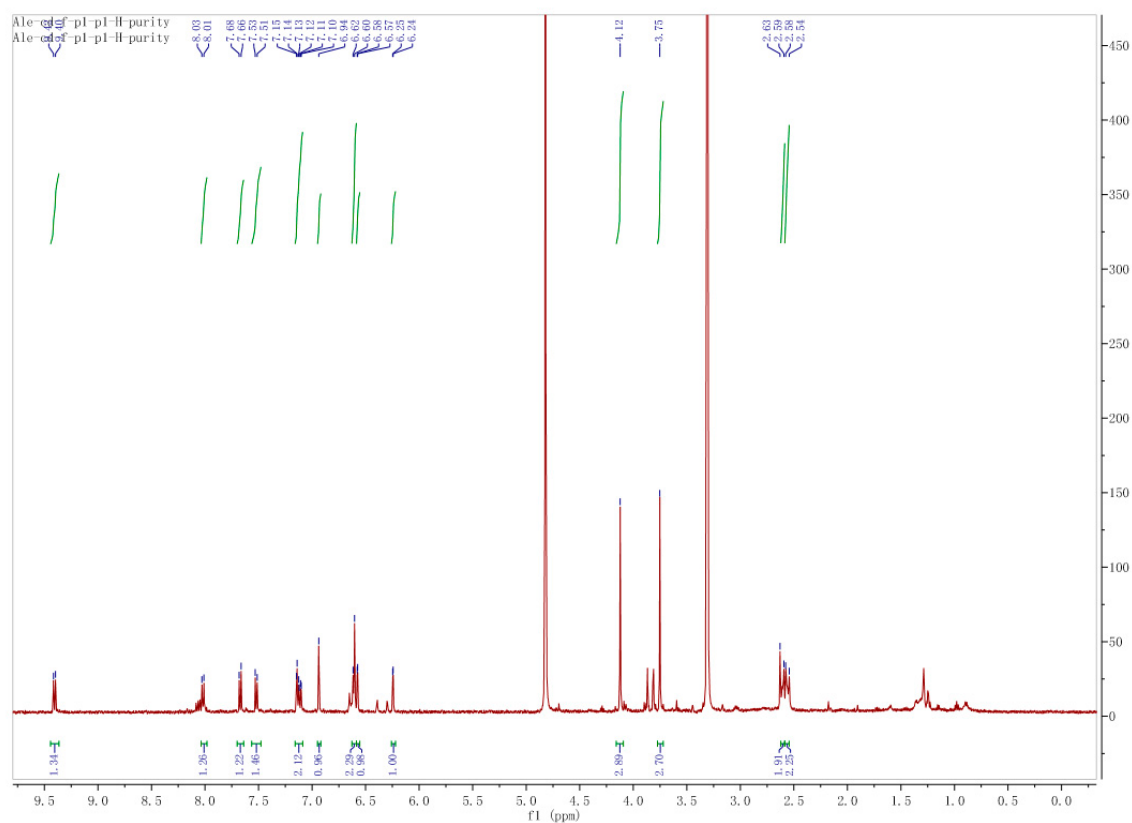
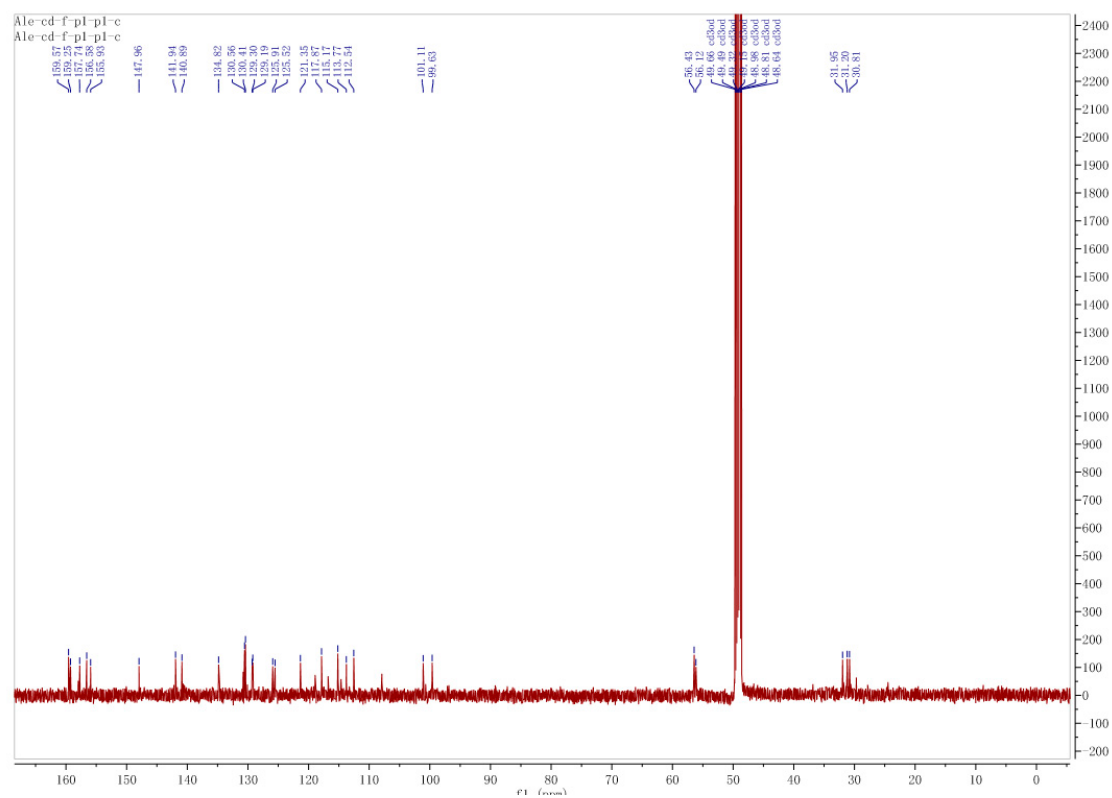


Figure S30. HR-ESI-MS spectrum of compound 5.

Figure S31. ¹H-NMR spectrum of compound 6.Figure S32. ¹³C-NMR spectrum of compound 6.

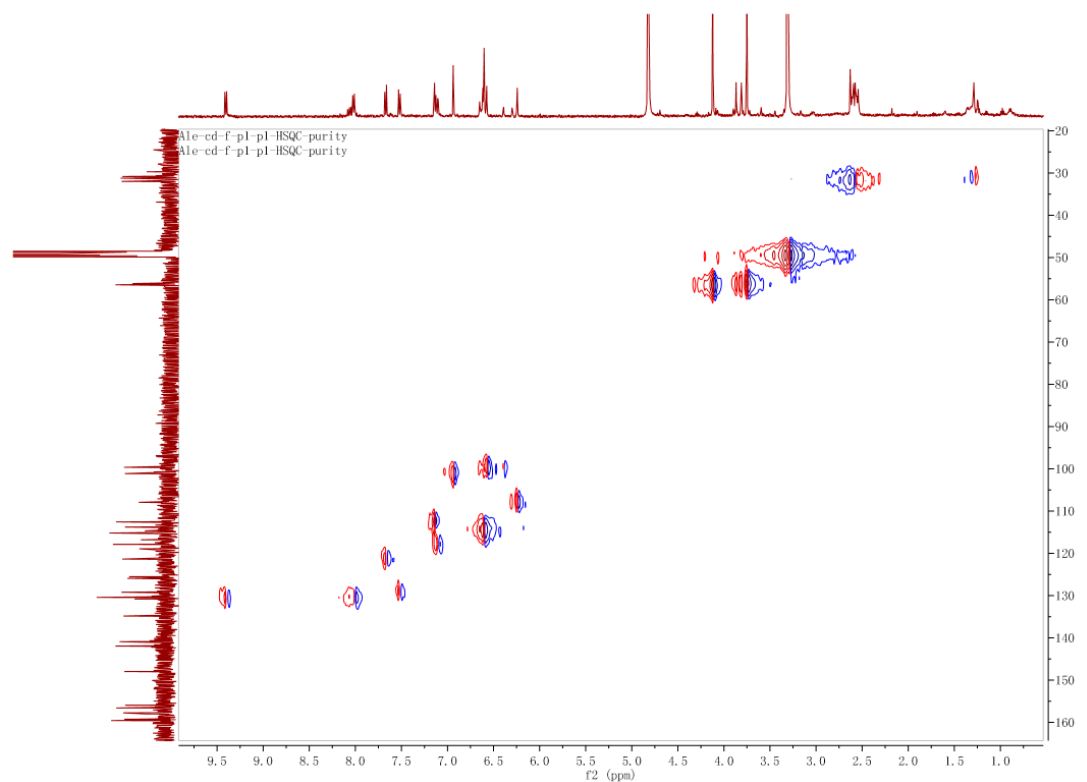


Figure S33. HSQC spectrum of compound 6.

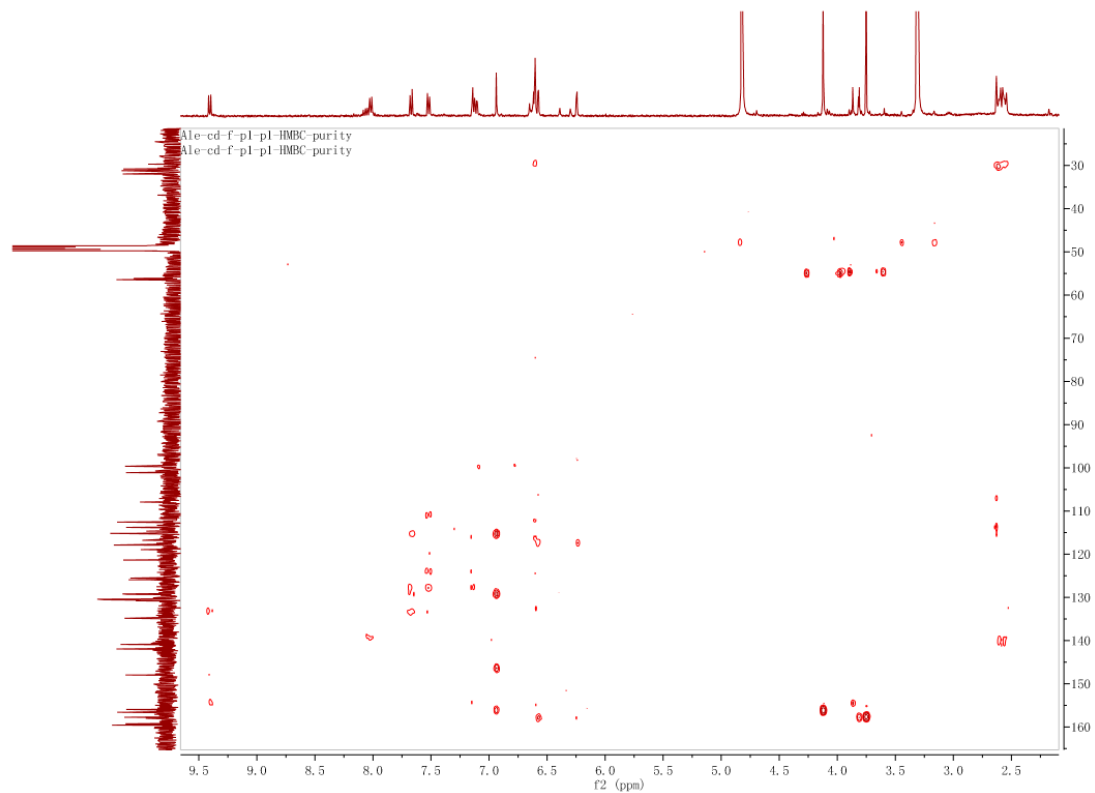


Figure S34. HMBC spectrum of compound 6.

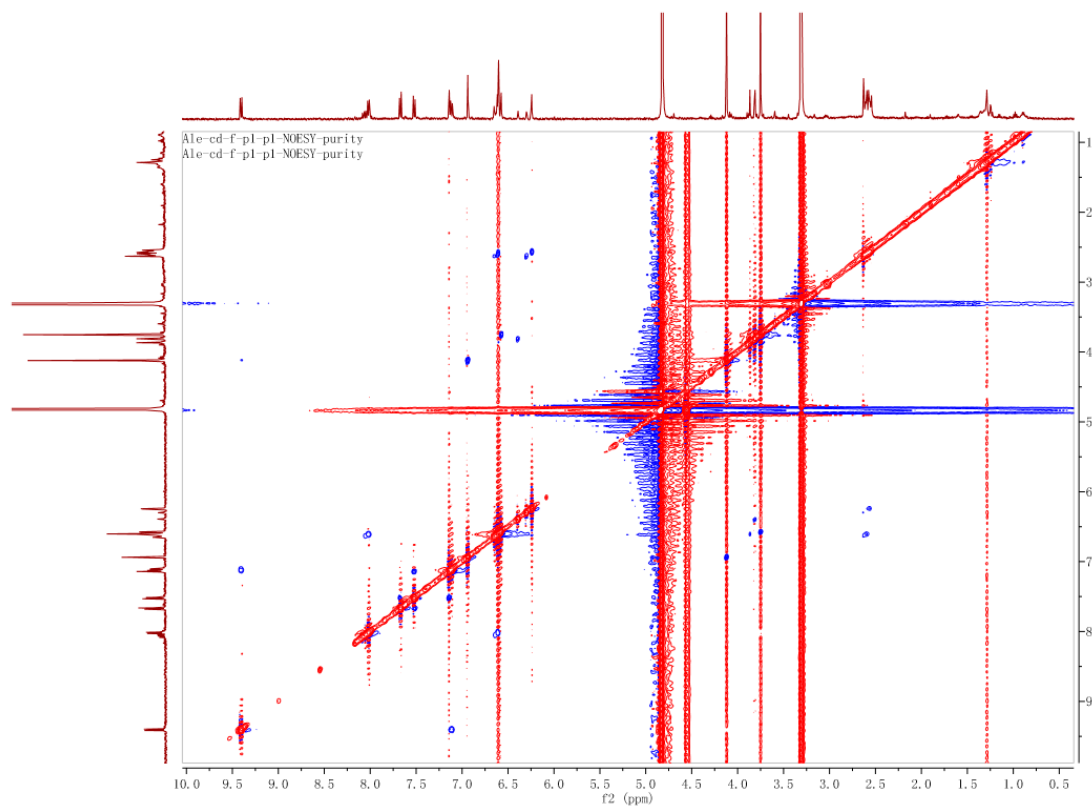


Figure S35. NOESY spectrum of compound 6.

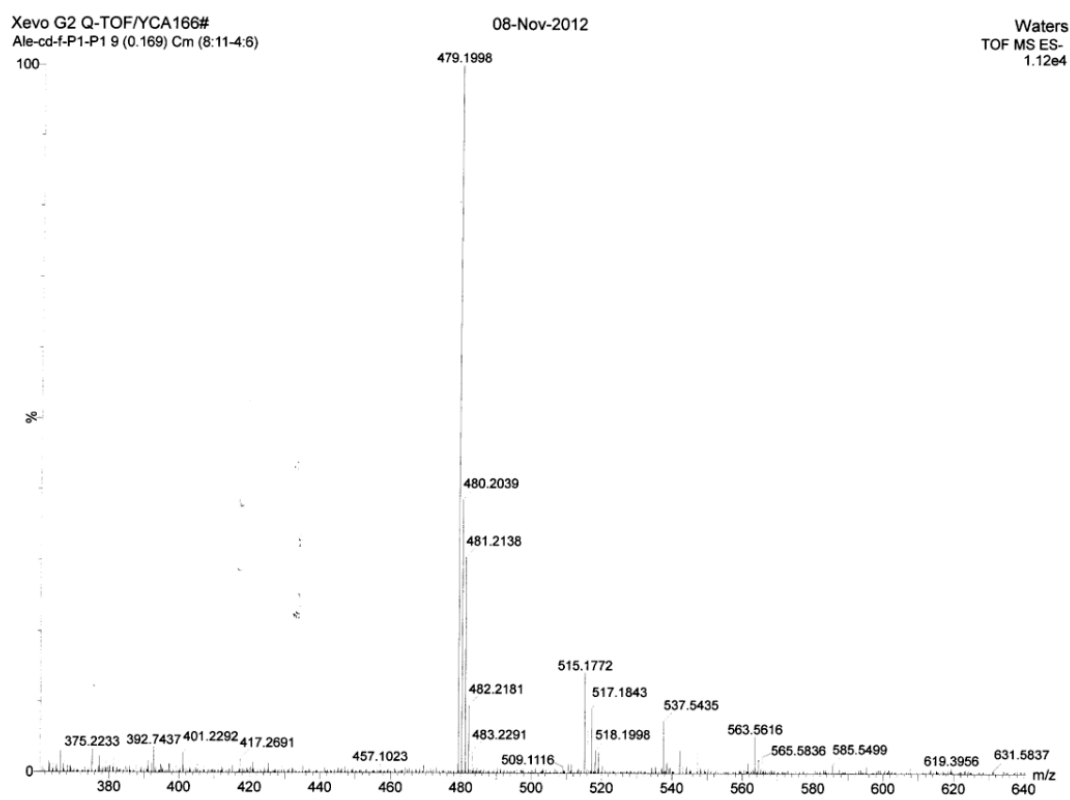
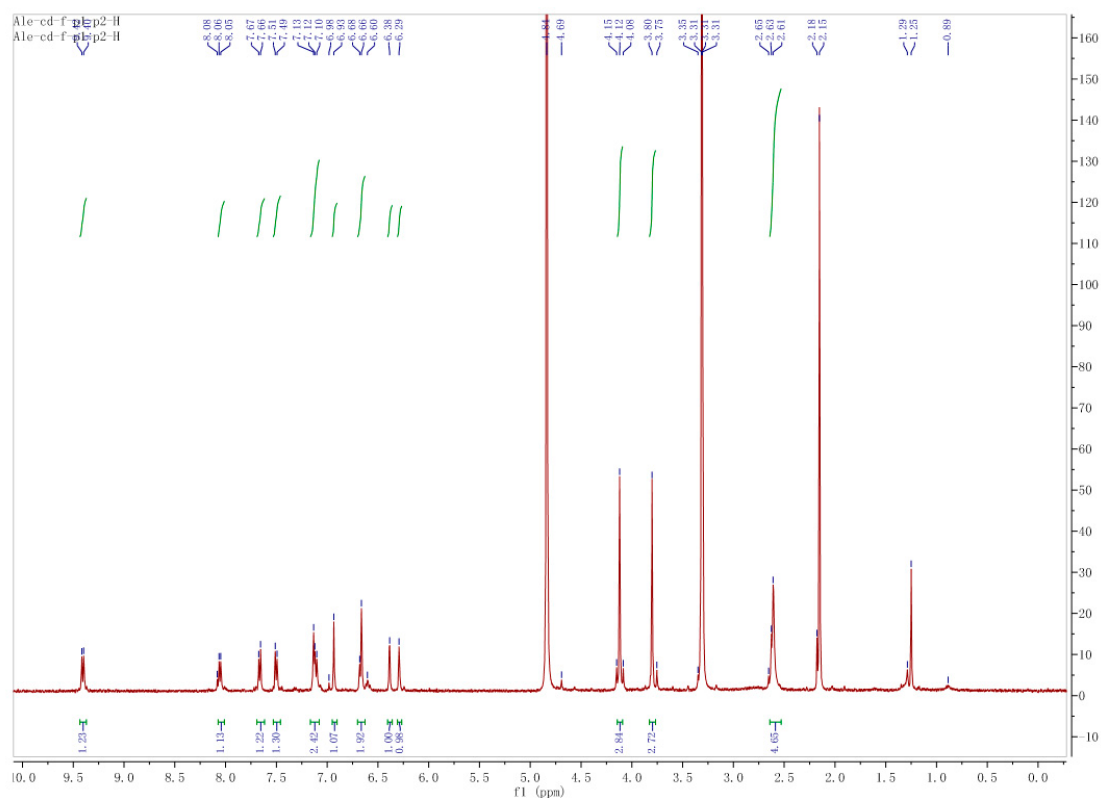
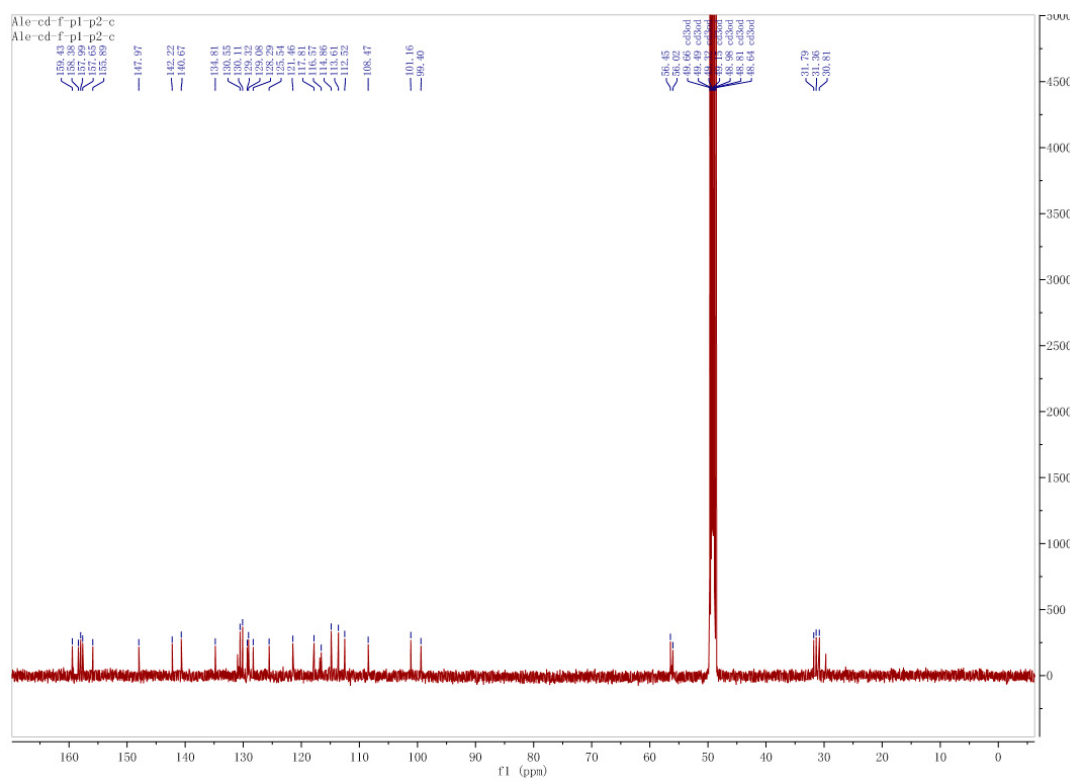


Figure S36. ESI-MS spectrum of compound 6.

Figure S37. ¹H-NMR spectrum of compound 7.Figure S38. ¹³C-NMR spectrum of compound 7.

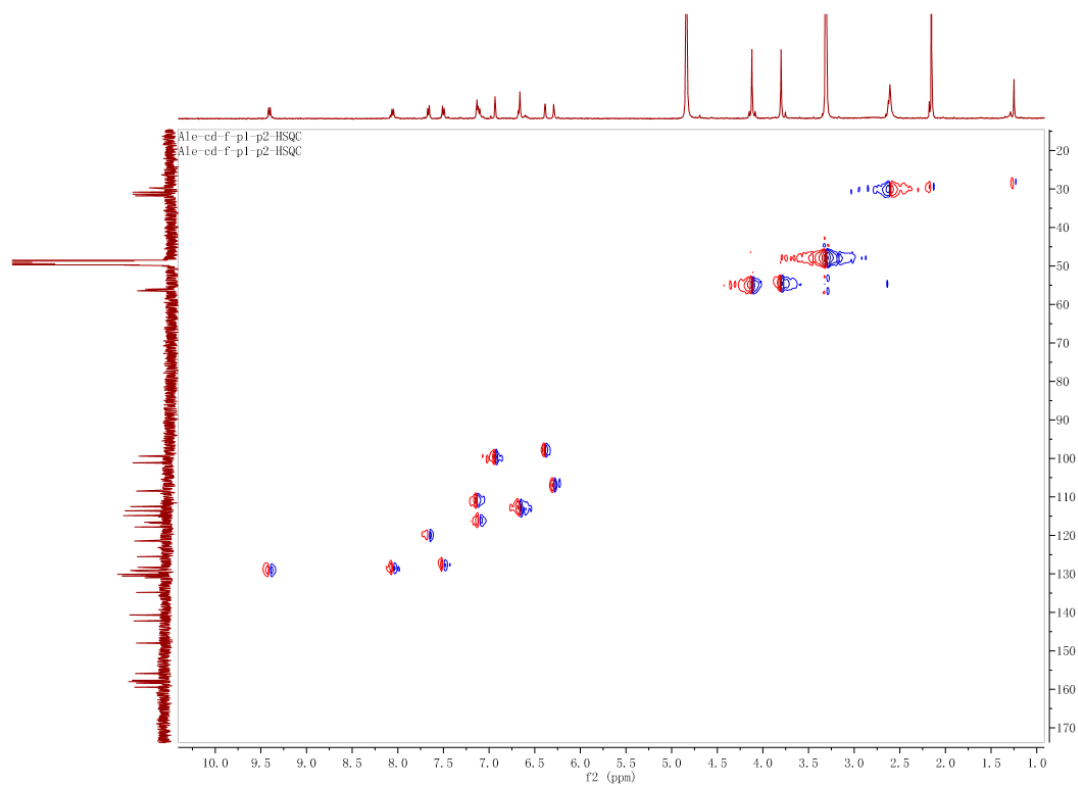


Figure S39. HSQC spectrum of compound 7.

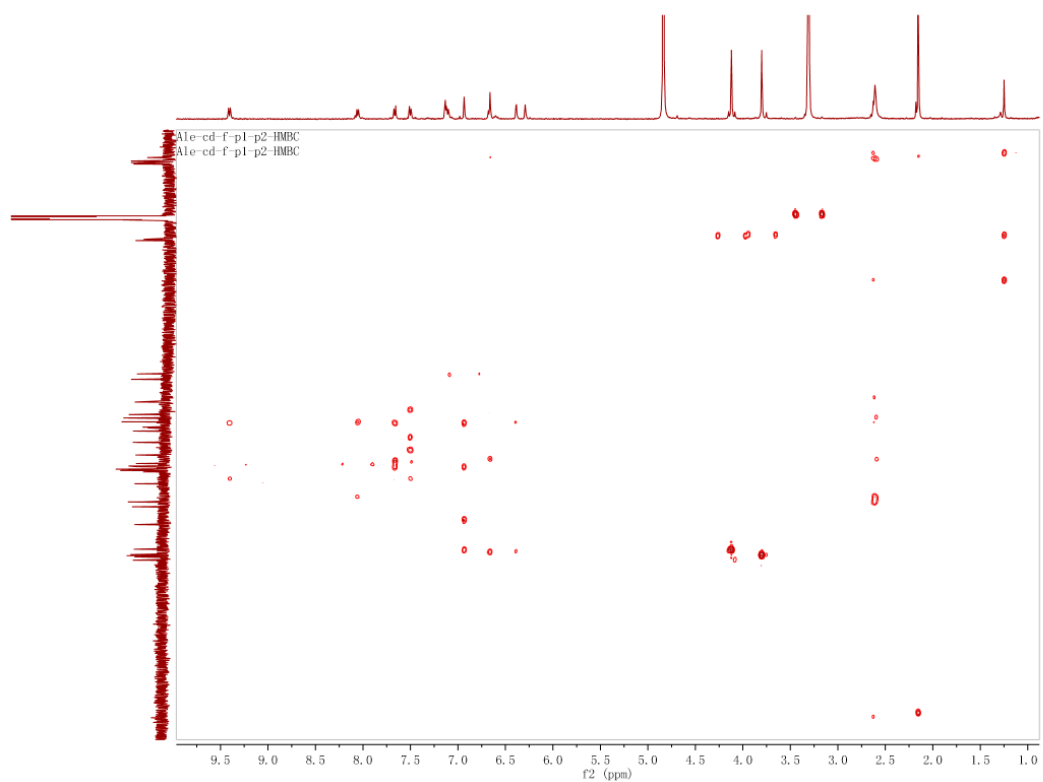


Figure S40. HMBC spectrum of compound 7.

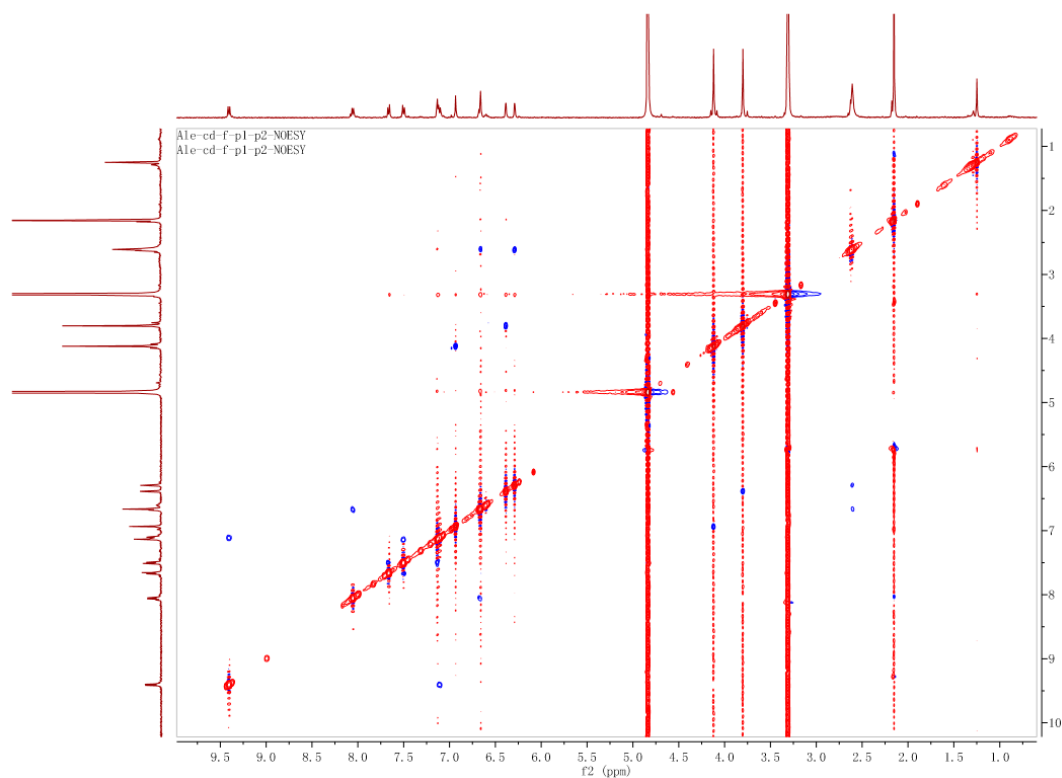


Figure S41. NOESY spectrum of compound 7.

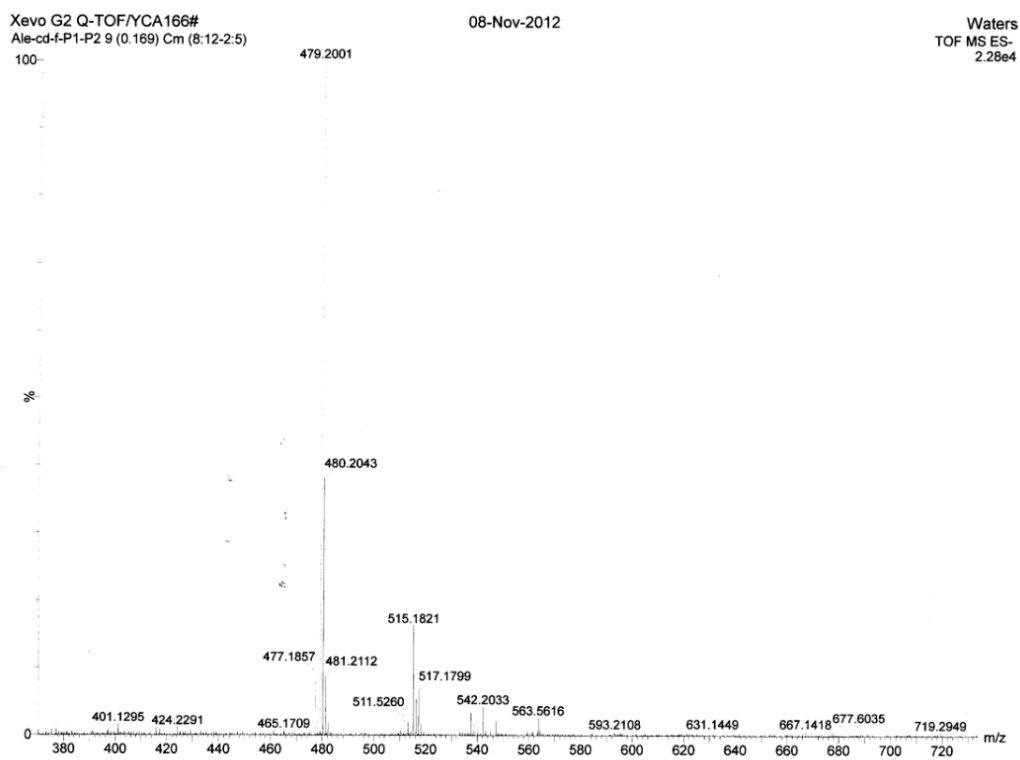


Figure S42. ESI-MS spectrum of compound 7.