Supplementary Information **Open Access**

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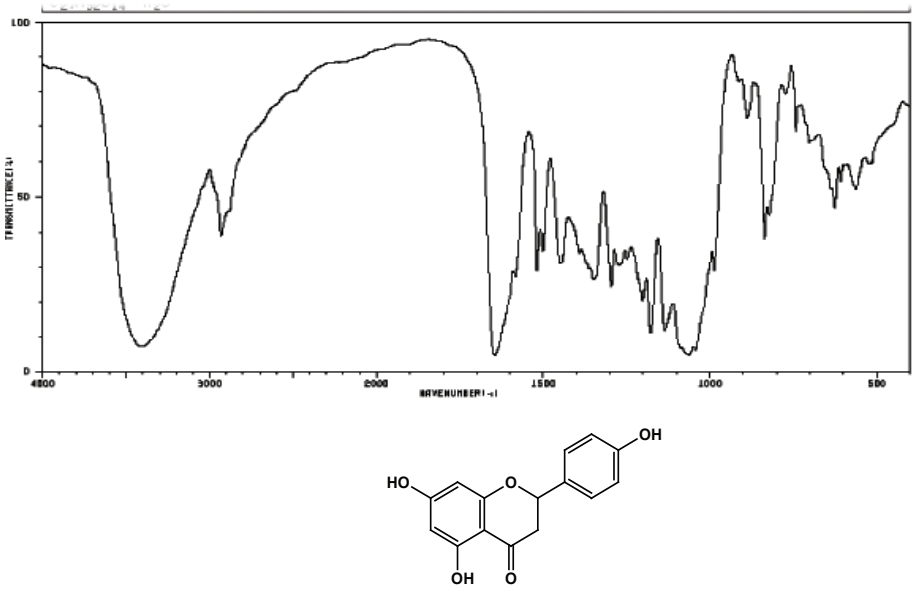
Supplement: Platinum and vanadate Bioactive Complexes of Glycoside Naringin and Phenolates



Supplementary Figure 1. IR spectral patterns of naringin NRG and its molecular structure (SDBS data base)

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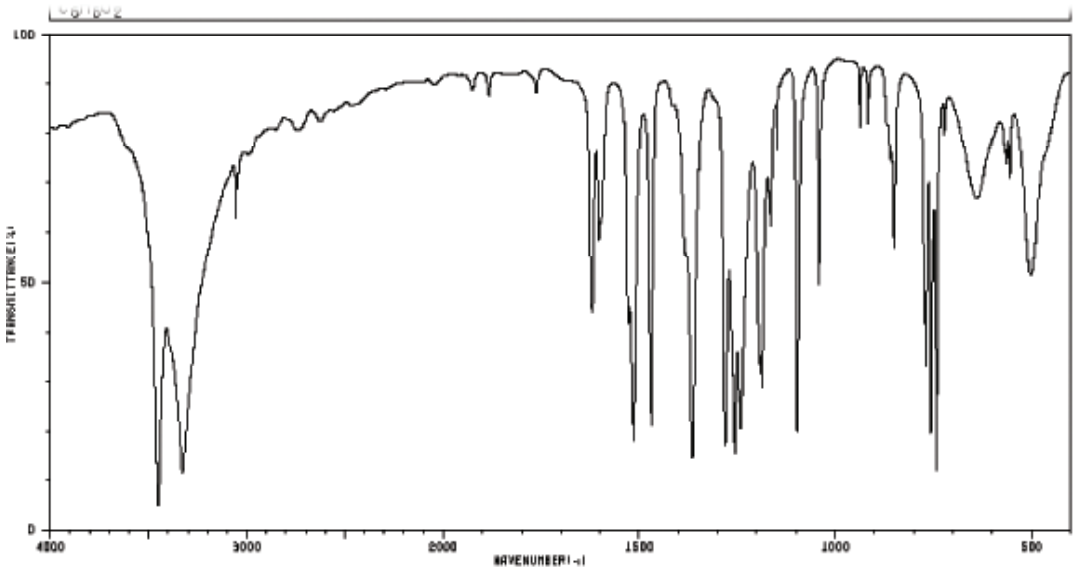
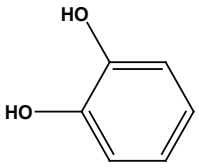
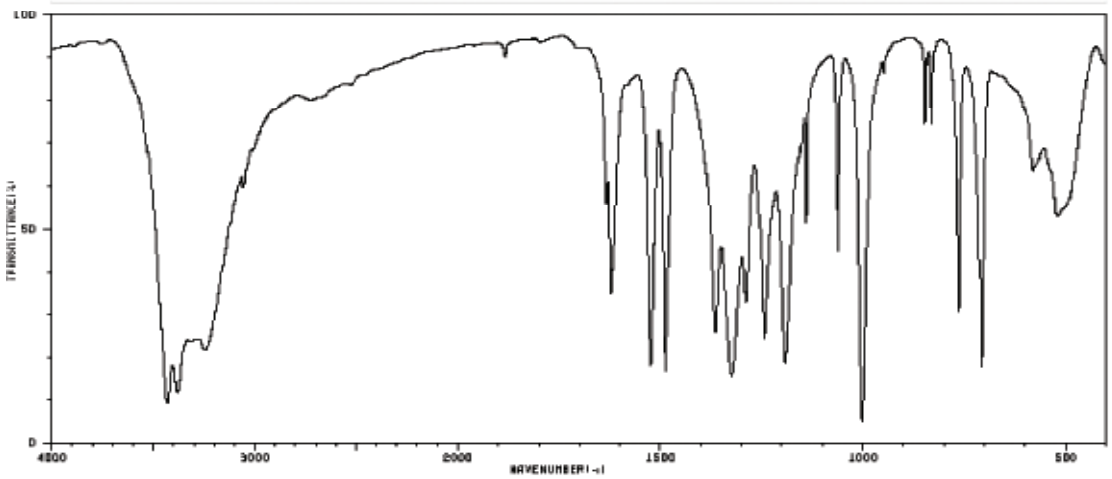
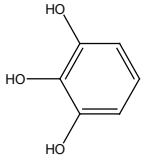
Hisham S. M. Abd-Rabboh: Department of Chemistry, Faculty of Science, Ain Shams University, Cairo 11566, Egypt



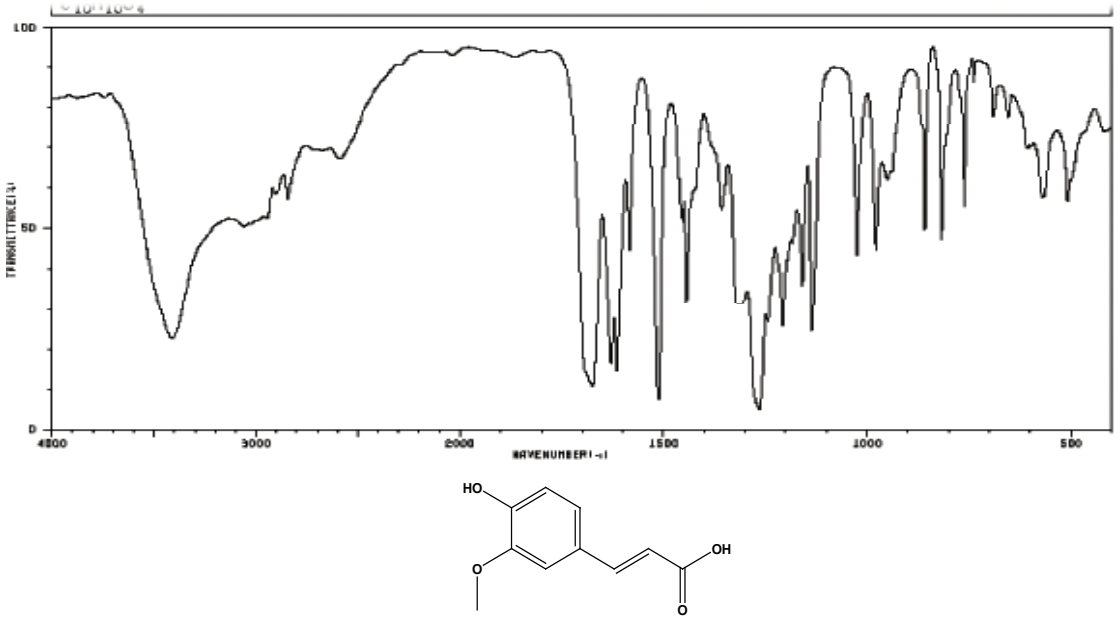


Supplementary Figure 2. IR spectral patterns of Catechol (CC), and its molecular structure (SDBS data base)

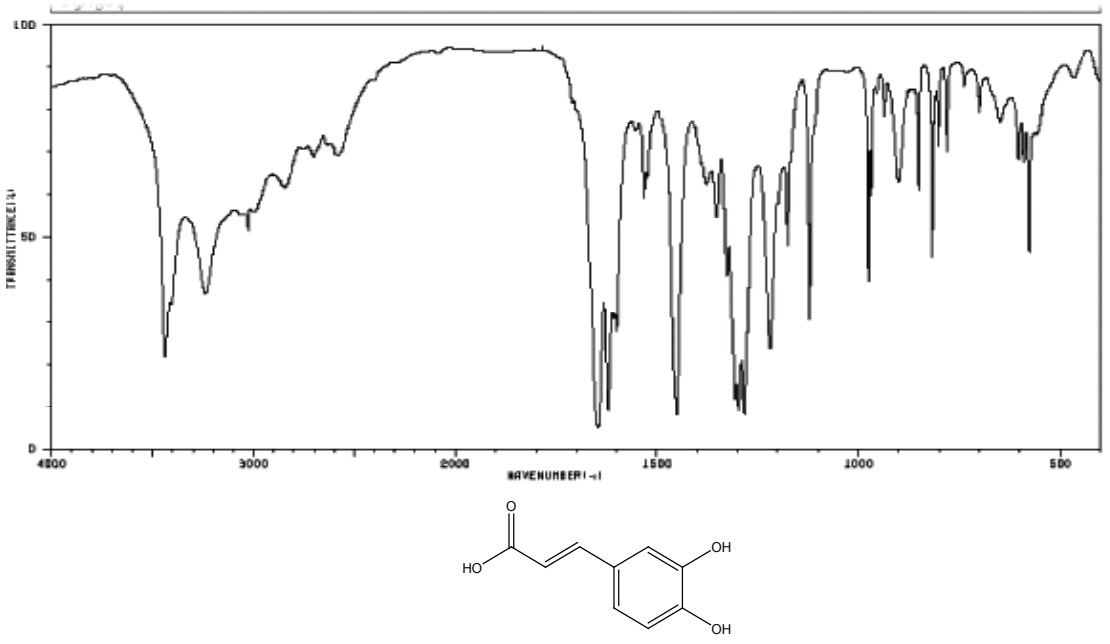




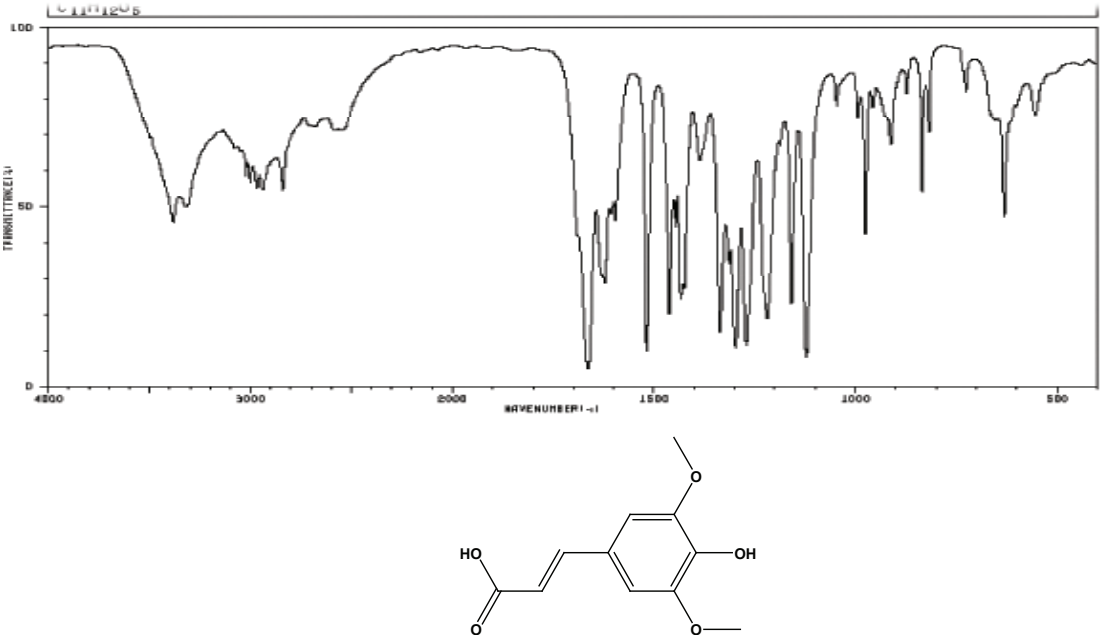
Supplementary Figure 3. IR spectral patterns of Pyrogallol (PYG), and its molecular structure (SDBS data base)



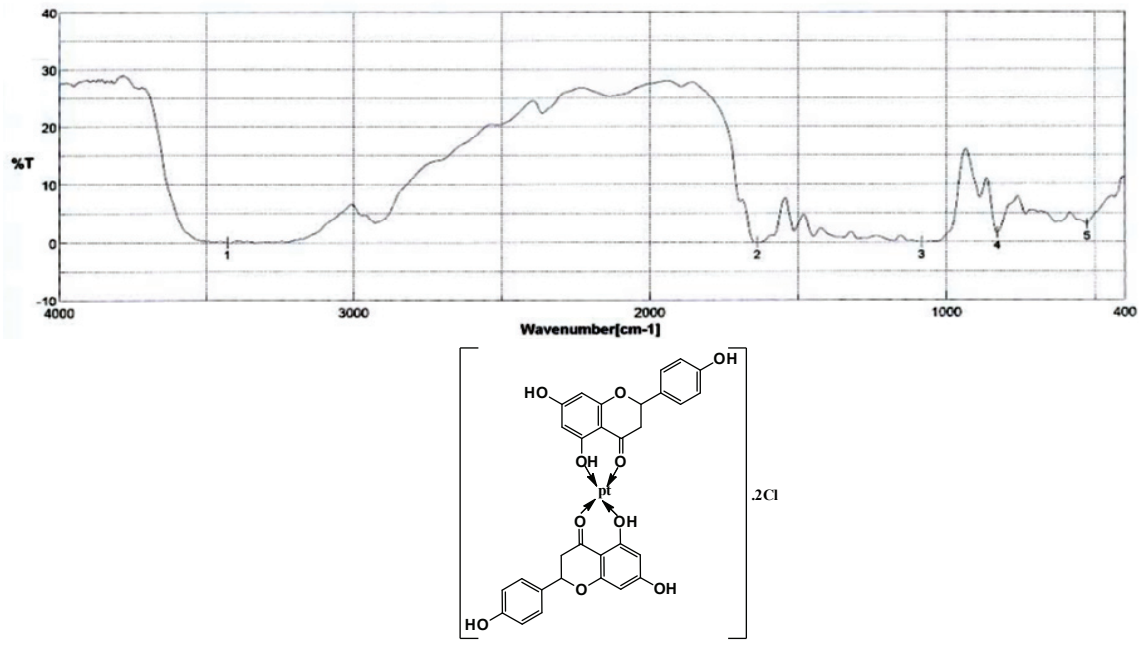
Supplementary Figure 4. IR spectral patterns of Ferulic acid (FA), and its molecular structure (SDBS data base)



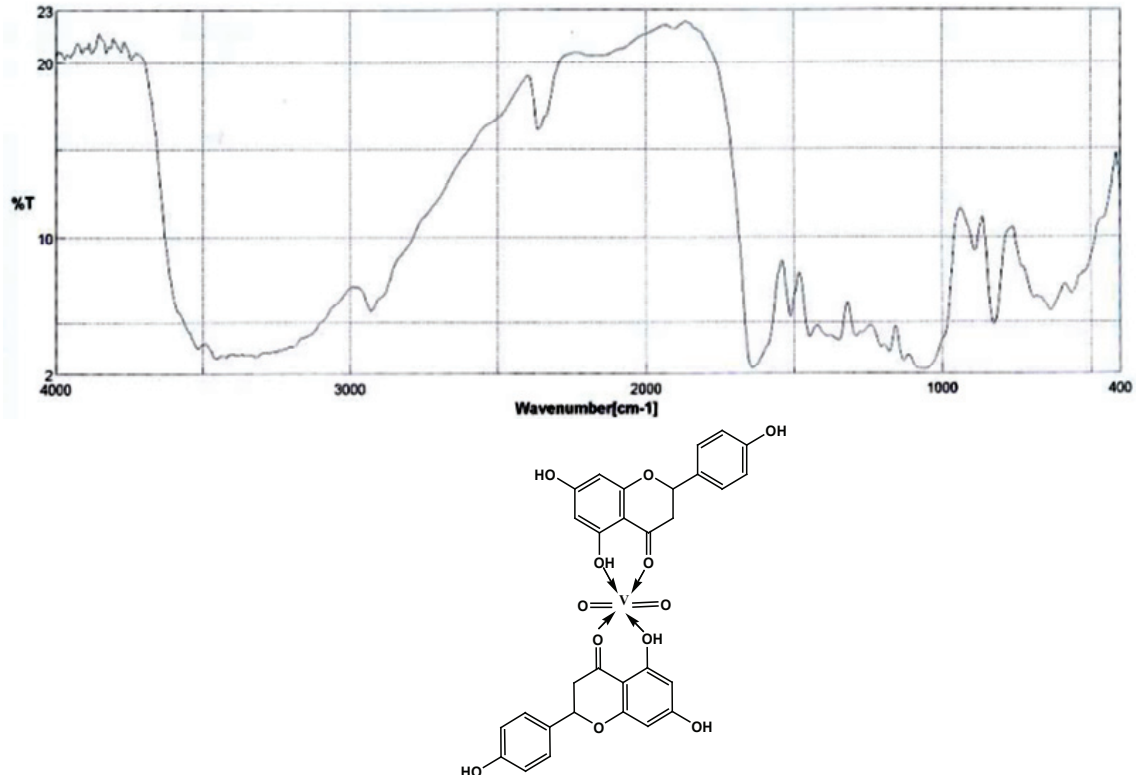
Supplementary Figure 5. IR spectral patterns of Caffeic acid (CA), and its molecular structure (SDBS data base)



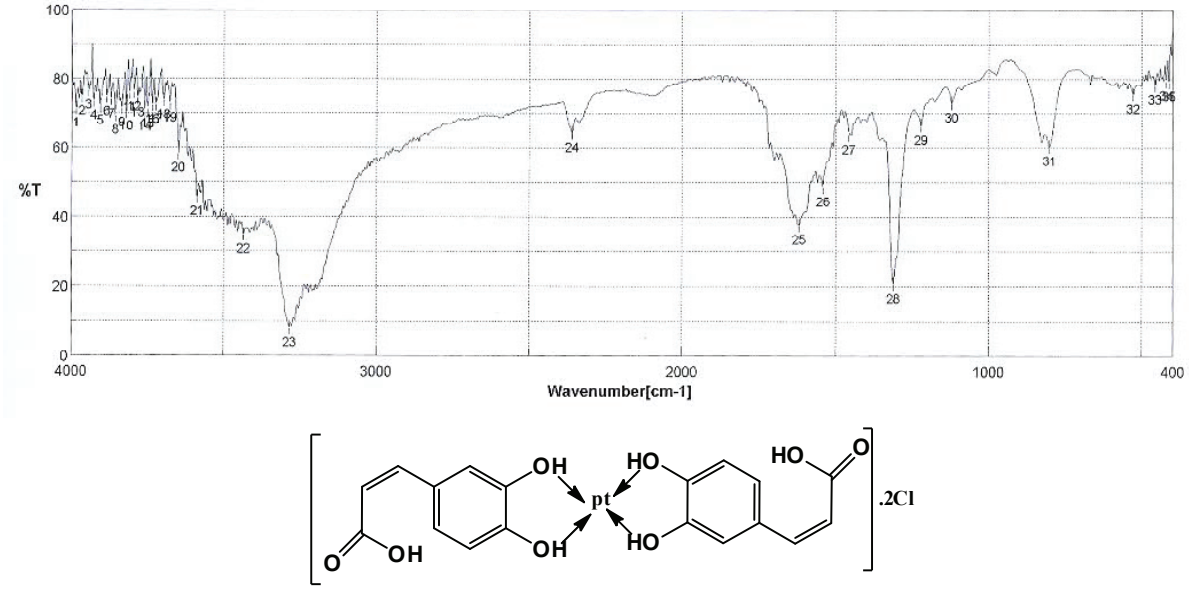
Supplementary Figure 6. IR spectral patterns of Supplementary Figure napic acid (SA), and its molecular structure (SDBS data base)



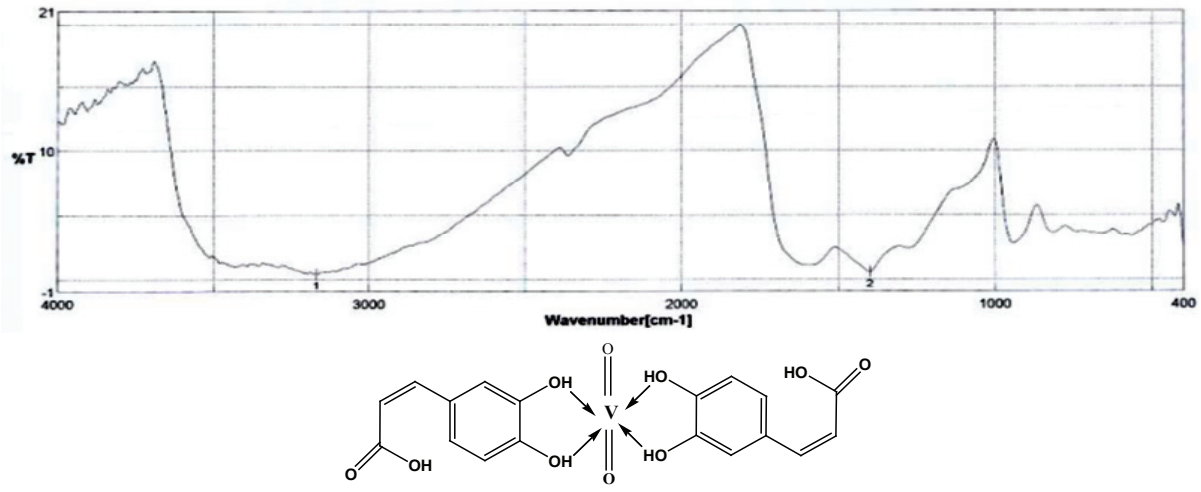
Supplementary Figure 7. IR spectral patterns of $PtNRG_2$ and its plauSupplementary Figure ble molecular structure



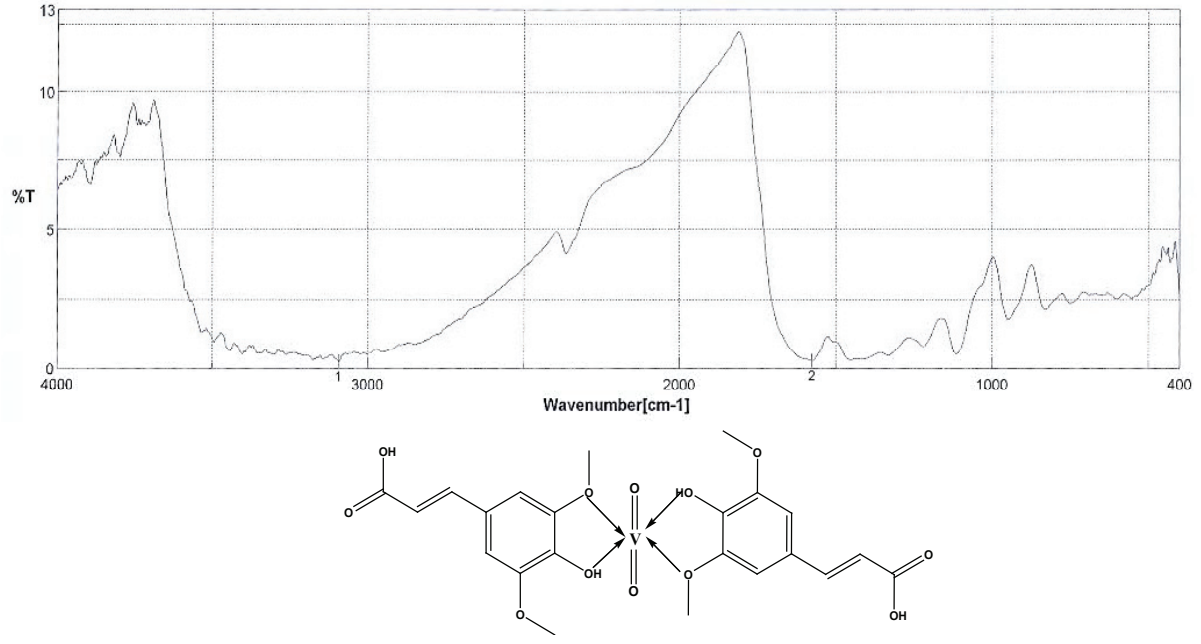
Supplementary Figure 8. IR spectral patterns of $VNRG_2$ and its plauSupplementary Figure ble molecular structure



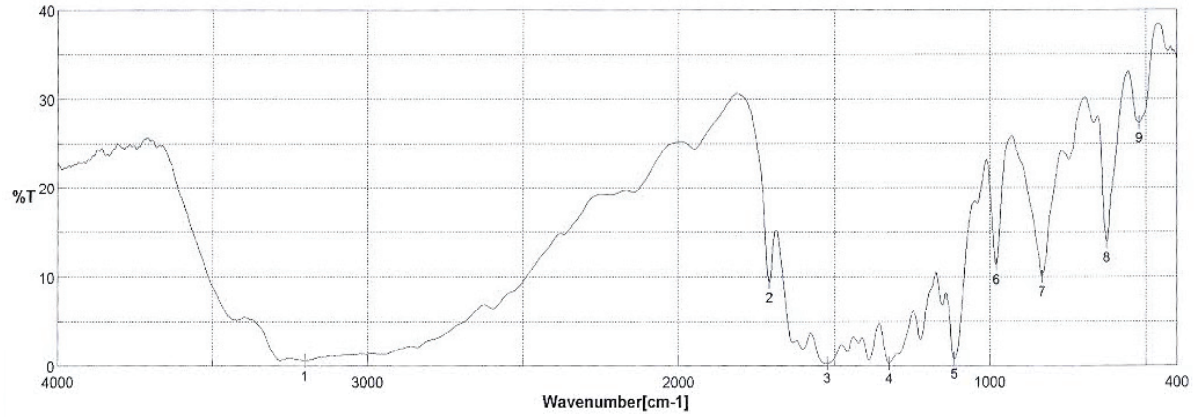
Supplementary Figure 9. IR spectral patterns of $PtCA_2$ and its plauSupplementary Figure ble molecular structure

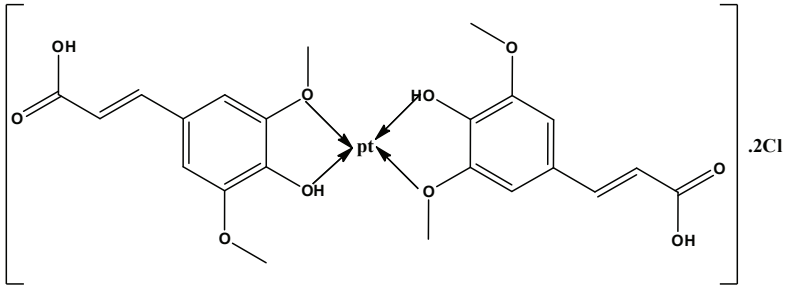


Supplementary Figure 10. IR spectral patterns of VCA_2 and its plauSupplementary Figure ble molecular structure

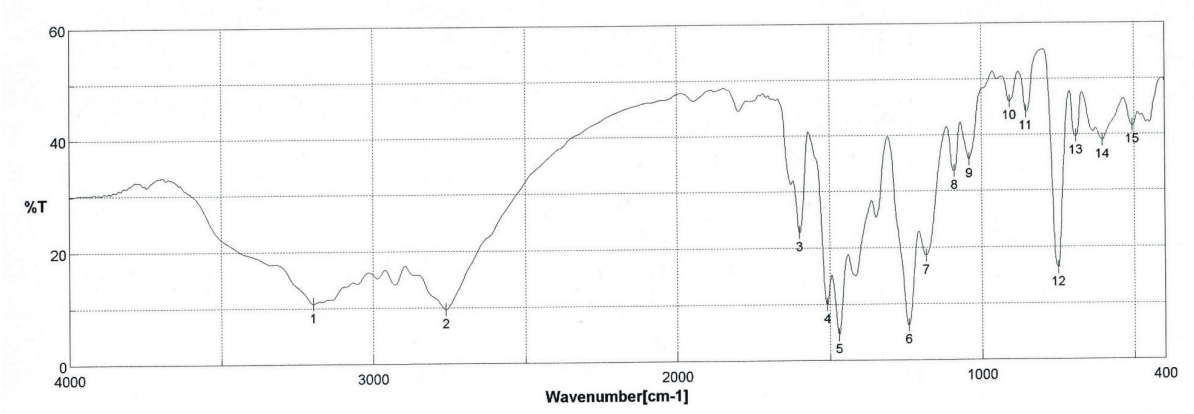


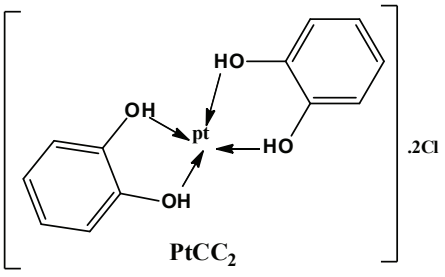
Supplementary Figure 11. IR spectral patterns of VSA_2 and its plauSupplementary Figure ble molecular structure



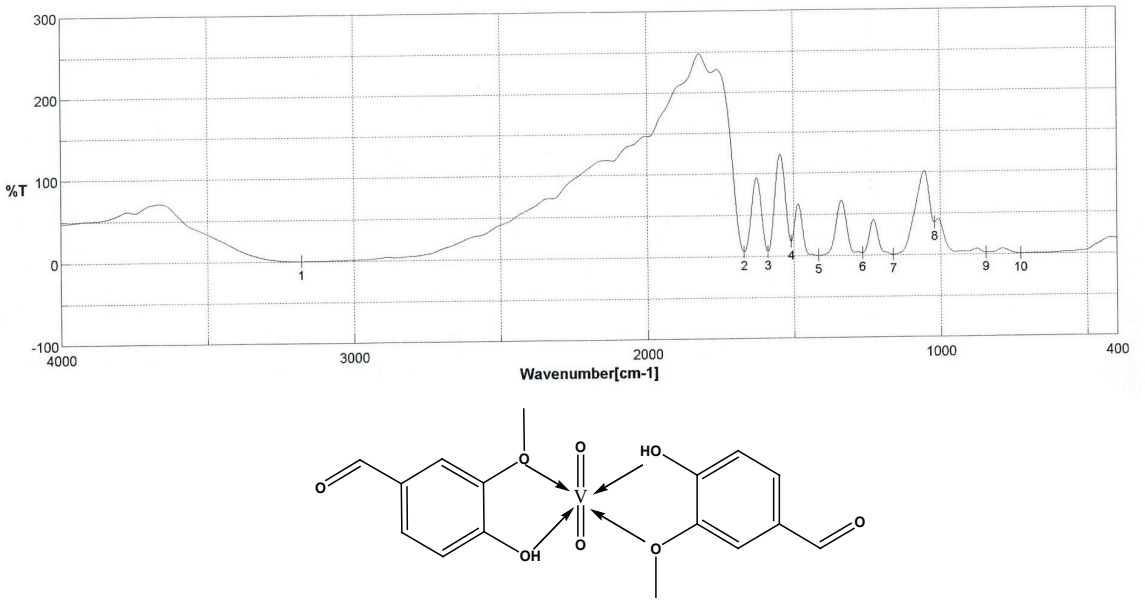


Supplementary Figure 12. IR spectral patterns of $PtSA_2$ and its plauSupplementary Figure ble molecular structure

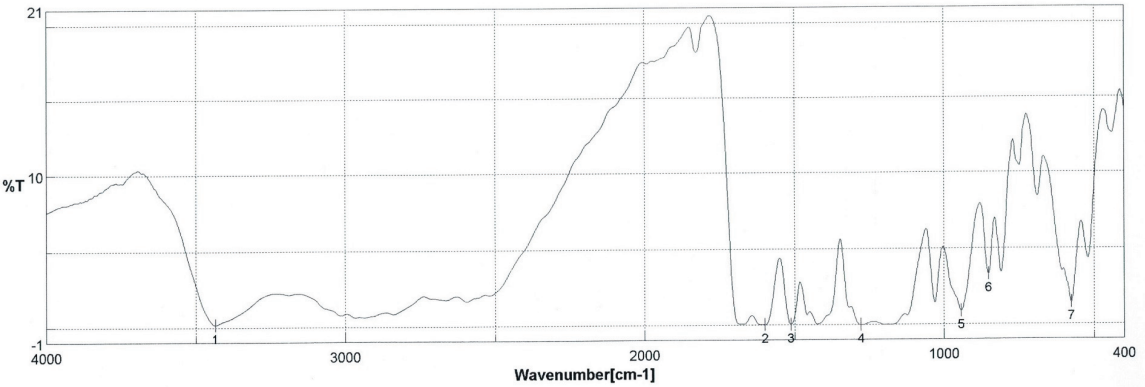


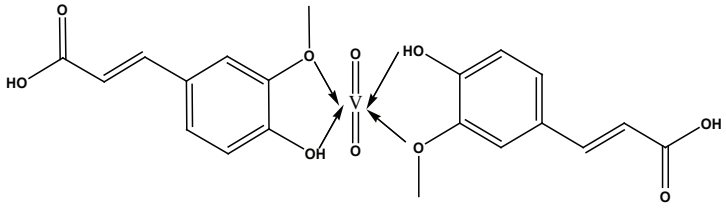


Supplementary Figure 13. IR spectral patterns of $PtCC_2$ and its plauSupplementary Figure ble molecular structure

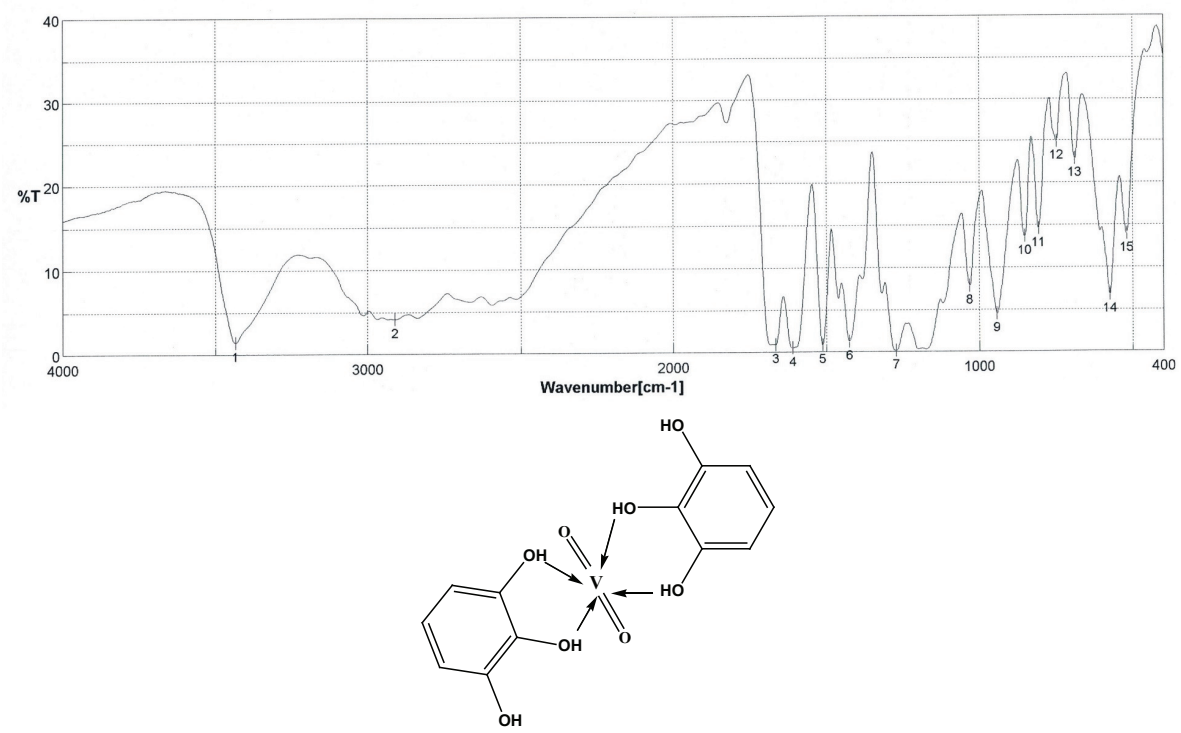


Supplementary Figure 14. IR spectral patterns of VVA_2 and its plauSupplementary Figure ble molecular structure

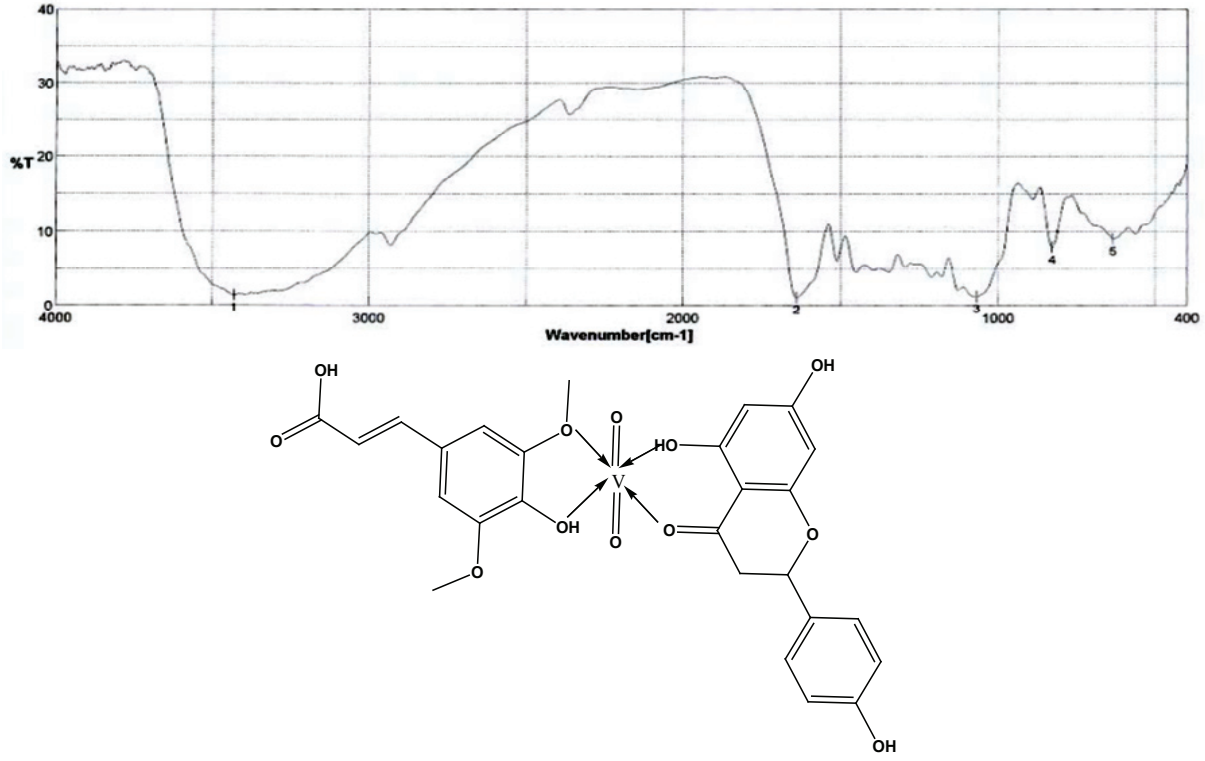




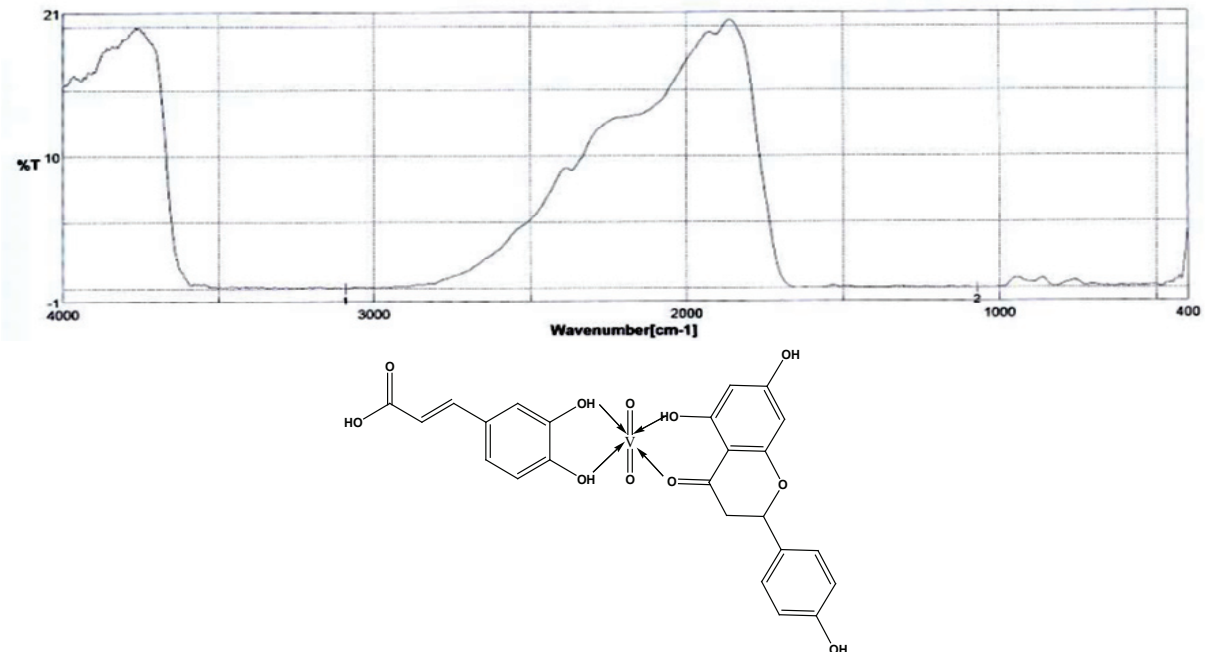
Supplementary Figure 15. IR spectral patterns of VFA_2 and its plauSupplementary Figure ble molecular structure



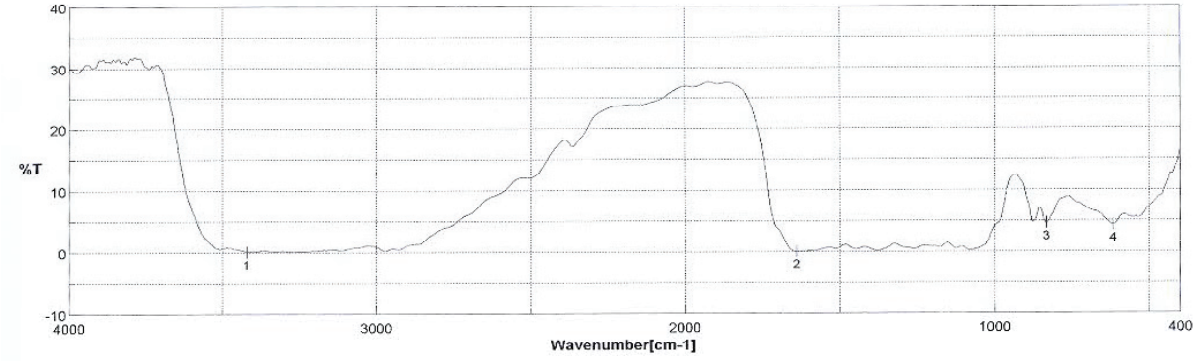
Supplementary Figure 16. IR spectral patterns of $VPYG_2$ and its plauSupplementary Figure ble molecular structure

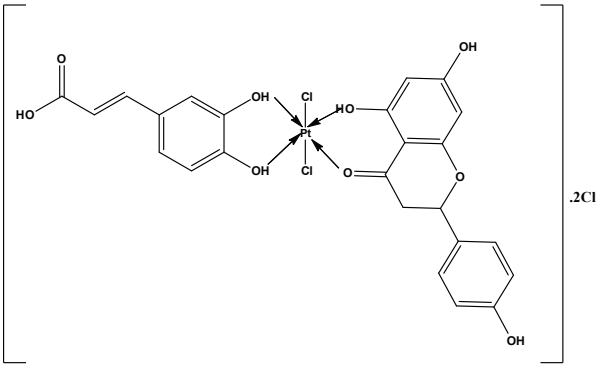


Supplementary Figure 17. IR spectral patterns of VNRGSA and its plauSupplementary Figure ble molecular structure

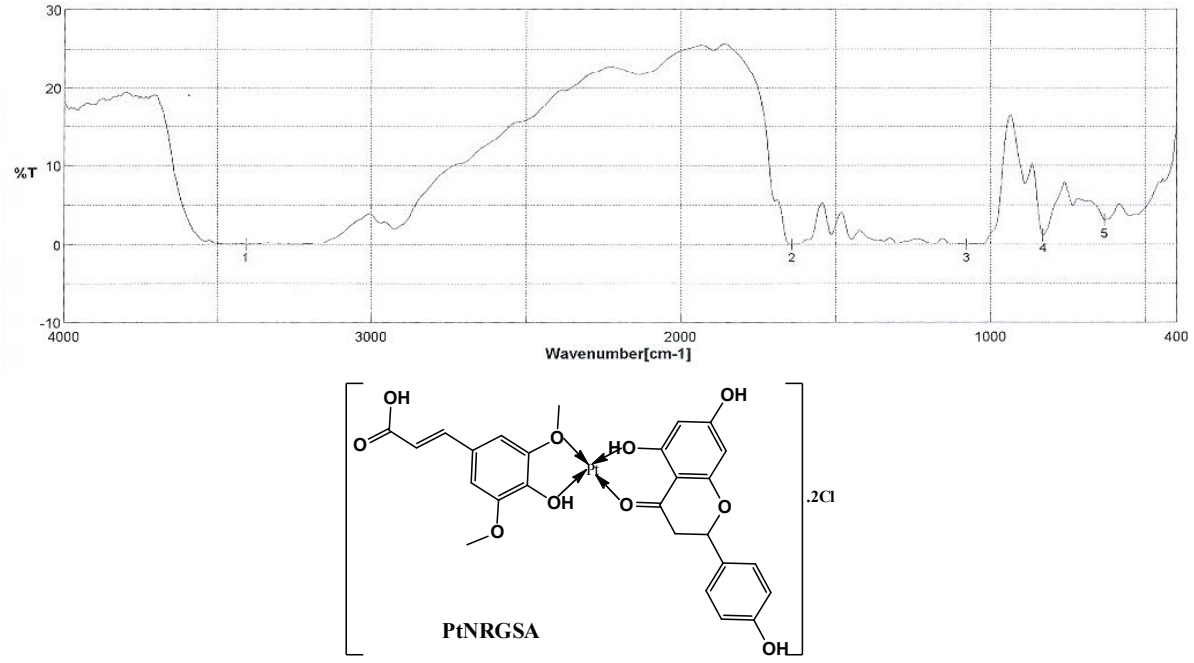


Supplementary Figure 18. IR spectral patterns of VNRGCA and its plauSupplementary Figure ble molecular structure

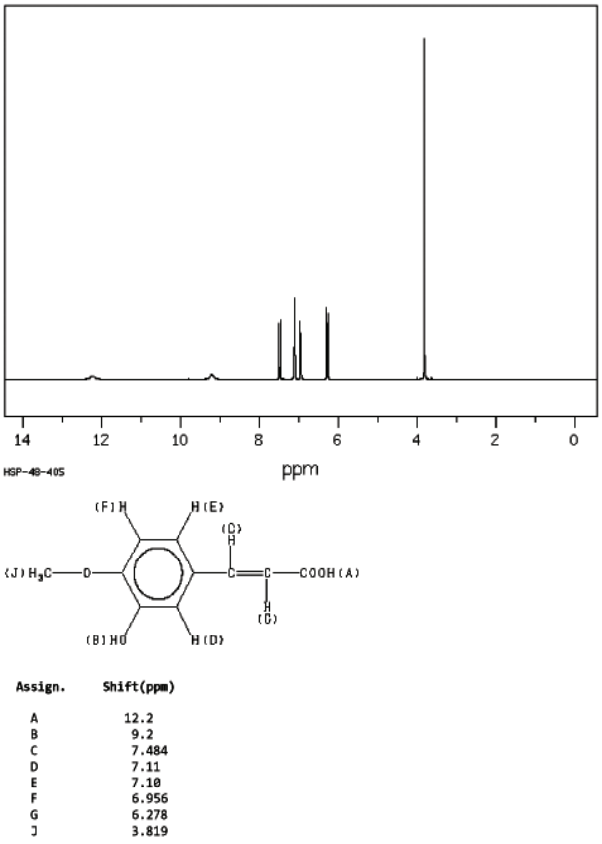




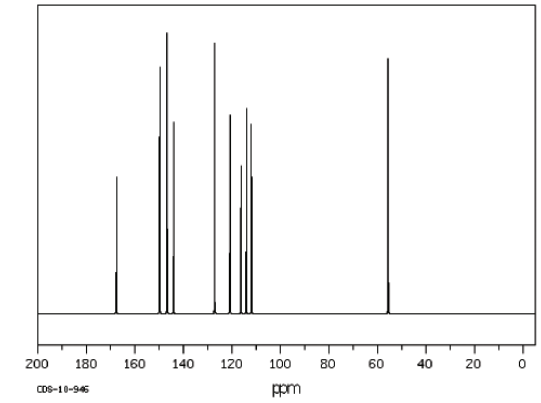
Supplementary Figure 19. IR spectral patterns of PtNRGCA and its plauSupplementary Figure ble molecular structure

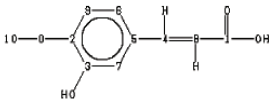


Supplementary Figure 20. IR spectral patterns of PtNRGSA and its plauSupplementary Figure ble molecular structure



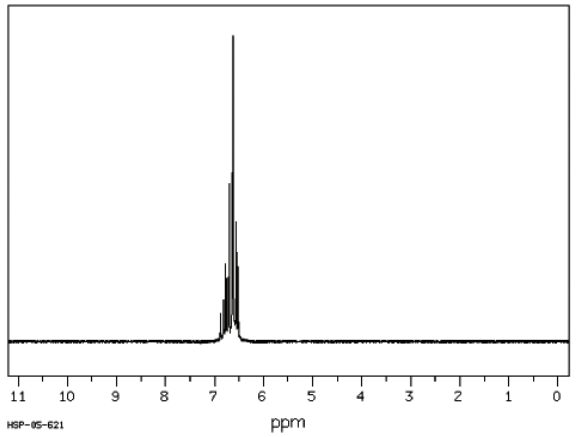
Supplementary Figure 21. ^{1}H NMR spectral patterns of Ferulic acid (FA) and its plauSupplementary Figure ble molecular structure (SDBS data base)

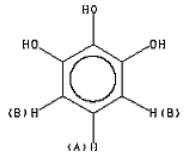




ppm	Int.	Assign.
167.66	488	1
149.81	880	2
146.66	1000	3
144.09	684	4
127.09	963	5
120.86	710	6
116.24	525	7 *
114.09	733	8 *
111.99	677	9
55.58	910	10

Supplementary Figure 22. ^{13}C NMR spectral patterns of Ferulic acid (FA) and its plauSupplementary Figure ble molecular structure(SDBS data base)





Assign.	Shift(ppm)
A	6.750
B	6.601

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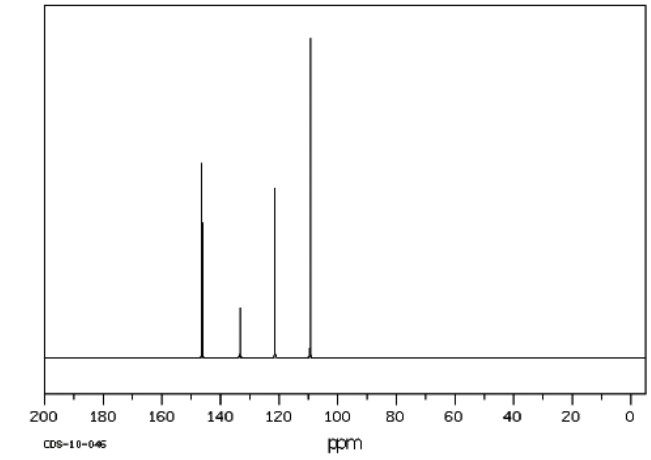
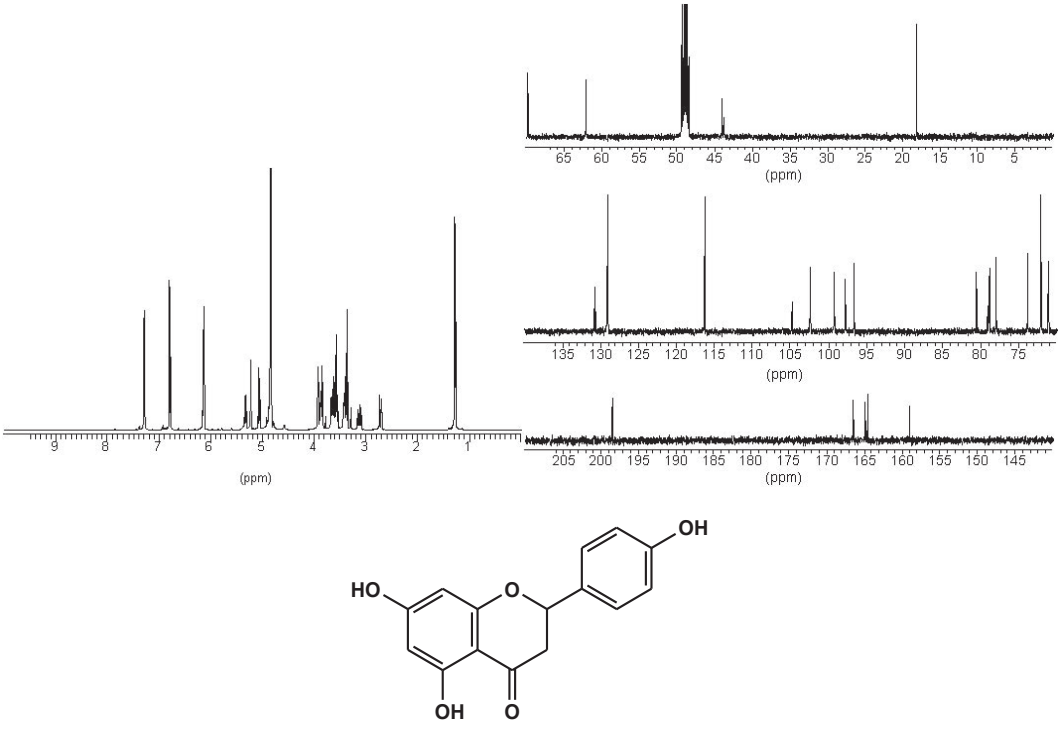
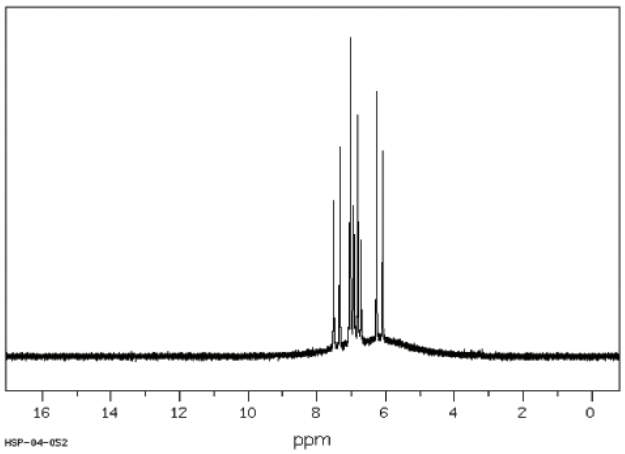
Supplementary Figure 23. ^{1}H NMR spectral patterns of Pyrogallol (PYG) and its plauSupplementary Figure ble molecular structure(SDBS data base)



Supplementary Figure 24. ^{13}C NMR spectral patterns of Pyrogallol (PYG) and its plauSupplementary Figure ble molecular structure(SDBS data base)



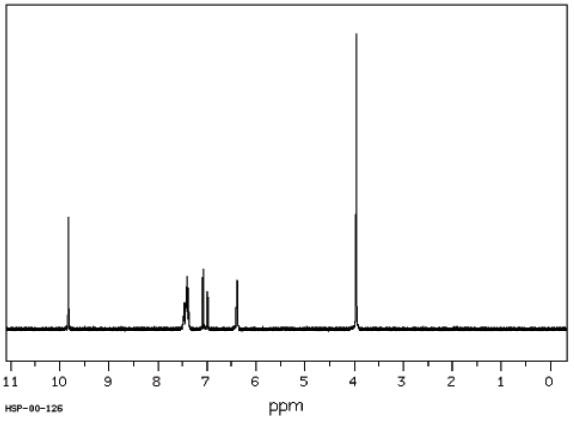
Supplementary Figure 25. ^{1}H and 13C - NMR spectral patterns of naringin (NRG) and its plauSupplementary Figure ble molecular structure



Assign.	Shift(ppm)
A	7.417
B	7.03
C	7.00
D	6.781
E	6.195
F	6.2

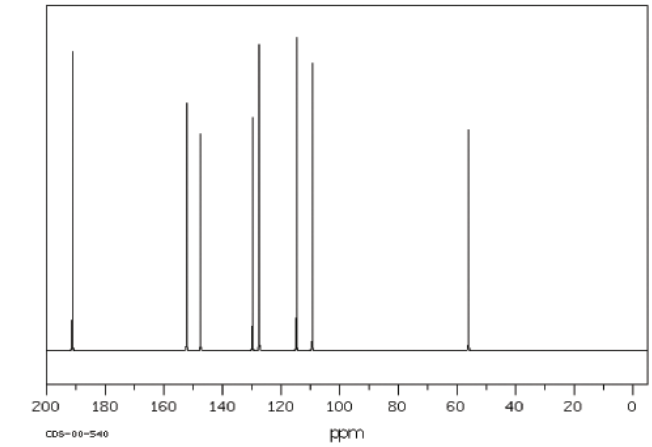
J(A,E)=15.9HZ.

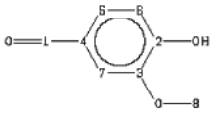
Supplementary Figure 26.[1]H NMR spectral patterns of Caffeic acid (CA) and its plauSupplementary Figure ble molecular structure (SDBS data base)



Assign.	Shift(ppm)
A	3.959
B	6.39
C	7.047
D	7.42
E	7.42
F	9.823

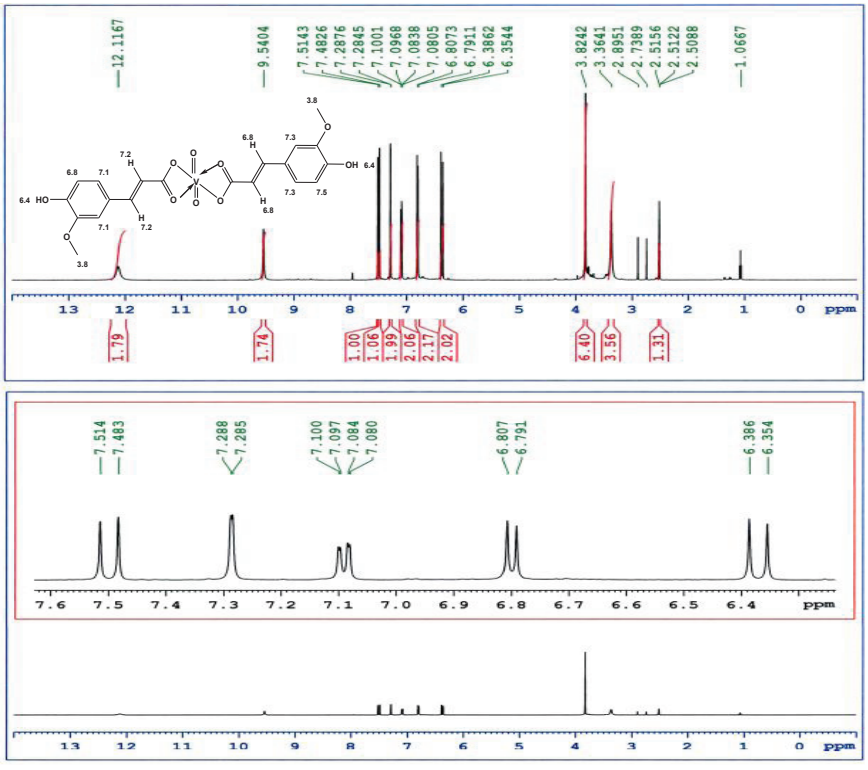
Supplementary Figure 27.[1]H NMR spectral patterns of Vanillin (VA) and its plauSupplementary Figure ble molecular structure (SDBS data base)



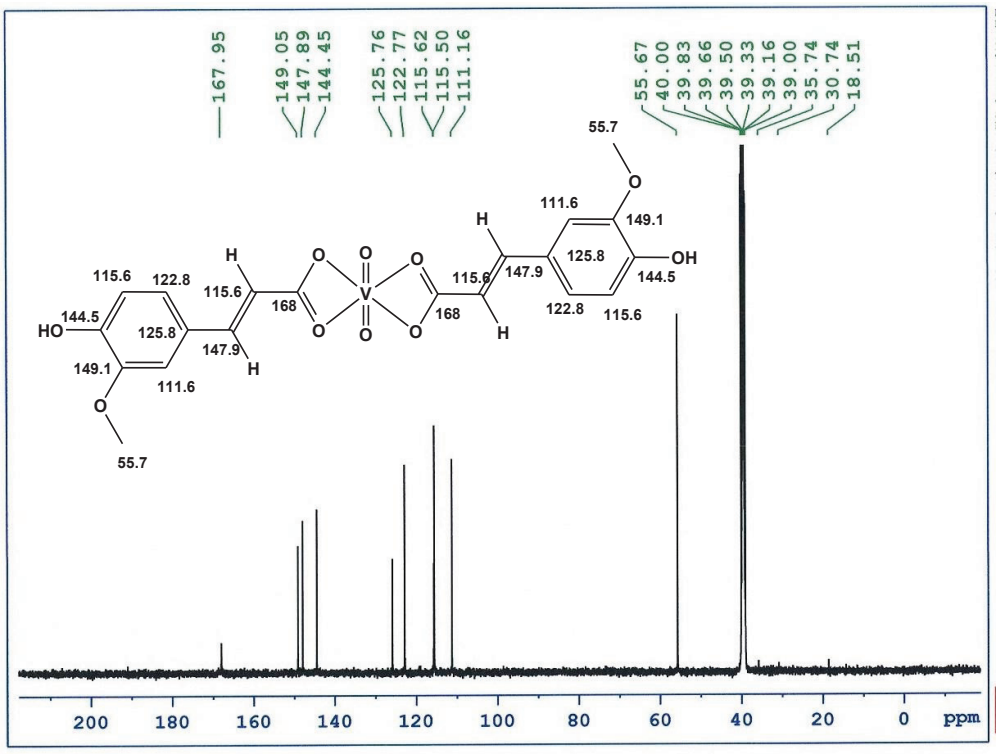


ppm	Int.	Assign.
191.21	955	1
152.18	791	2
147.50	692	3
129.77	746	4
127.49	975	5
114.75	1000	6 *
109.34	920	7 *
56.10	706	8

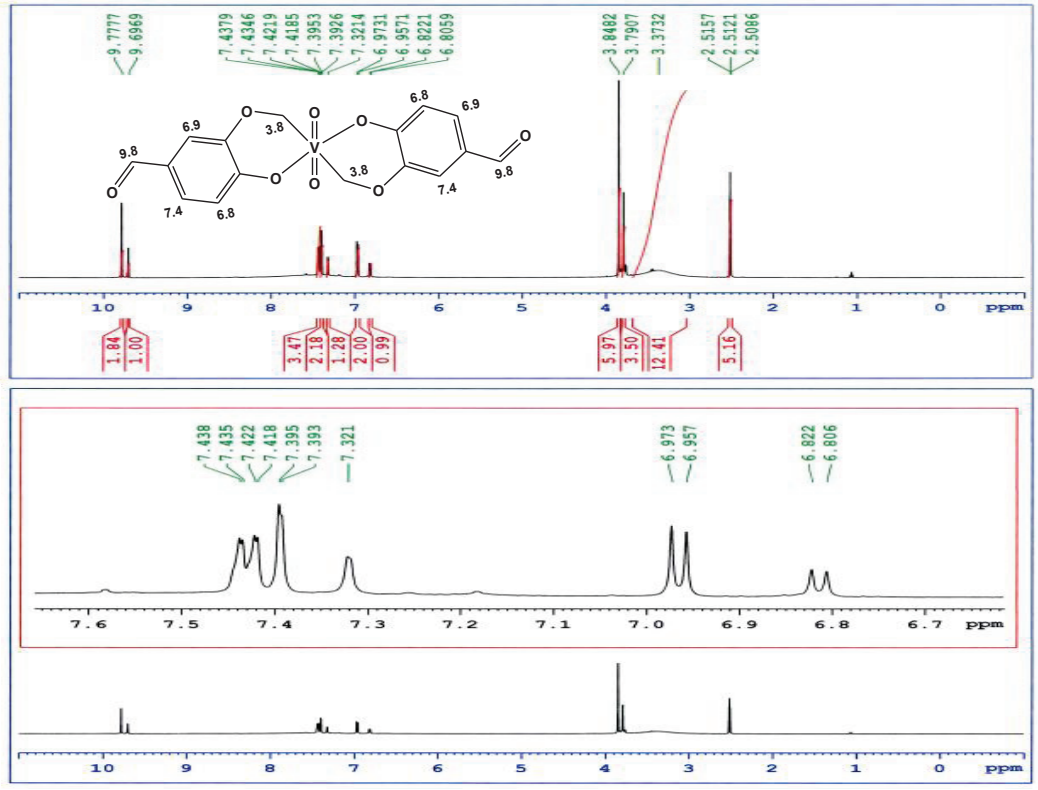
Supplementary Figure 28. ^{13}C NMR spectral patterns of Vanillic Acid (VA) and its plauSupplementary Figure ble molecular structure (SDBS data base)



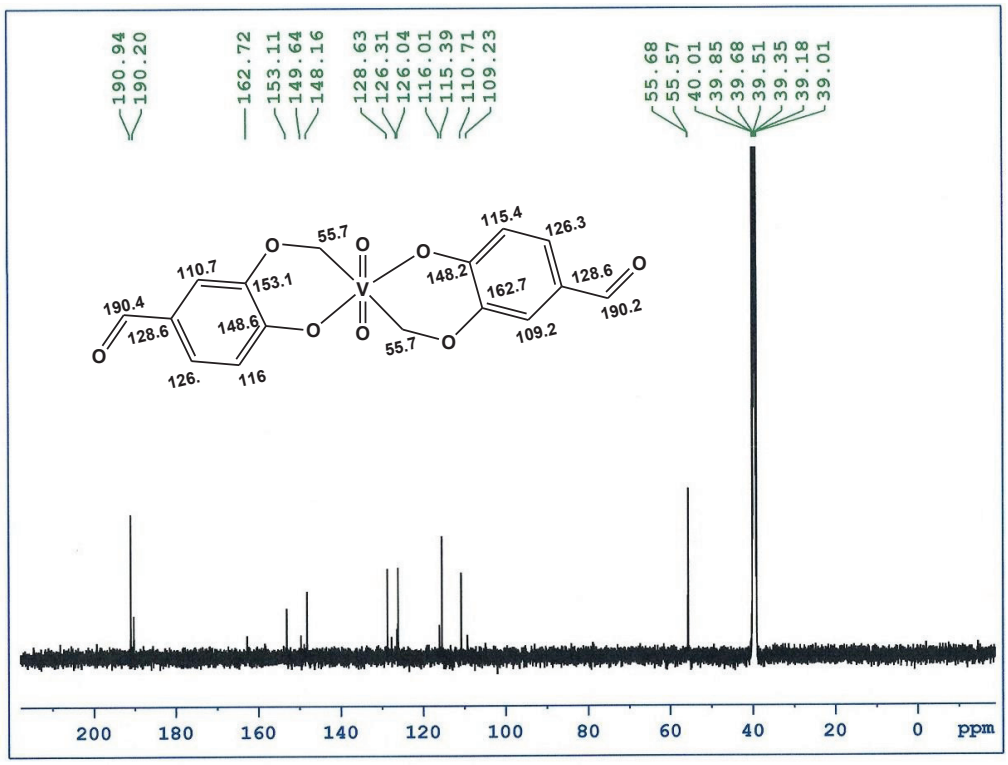
Supplementary Figure 29. ^{1}H NMR spectral patterns of VFA_2 and its plauSupplementary Figure ble molecular structure



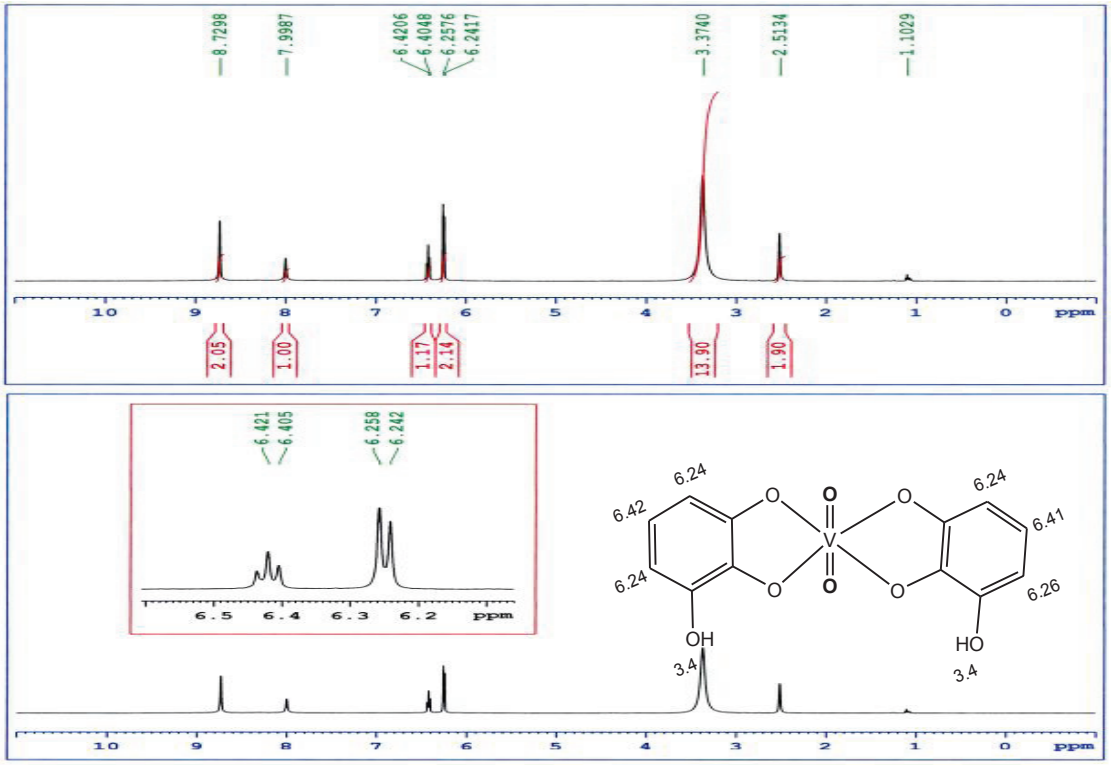
Supplementary Figure 30. ^{13}C NMR spectral patterns of VFA_2 and its plauSupplementary Figure ble molecular structure



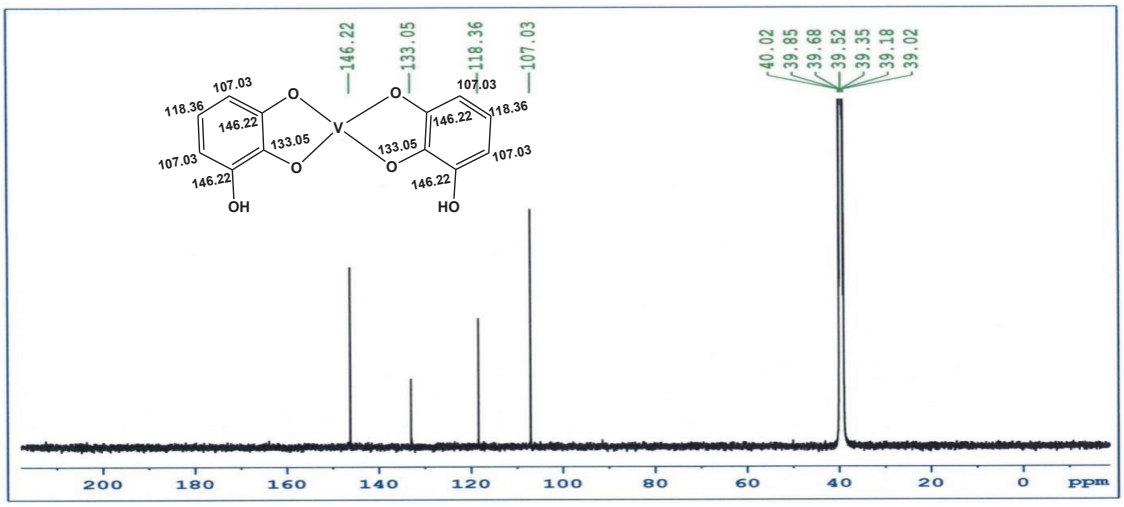
Supplementary Figure 31. ^{1}H NMR spectral patterns of VVA_2 and its plauSupplementary Figure ble molecular structure



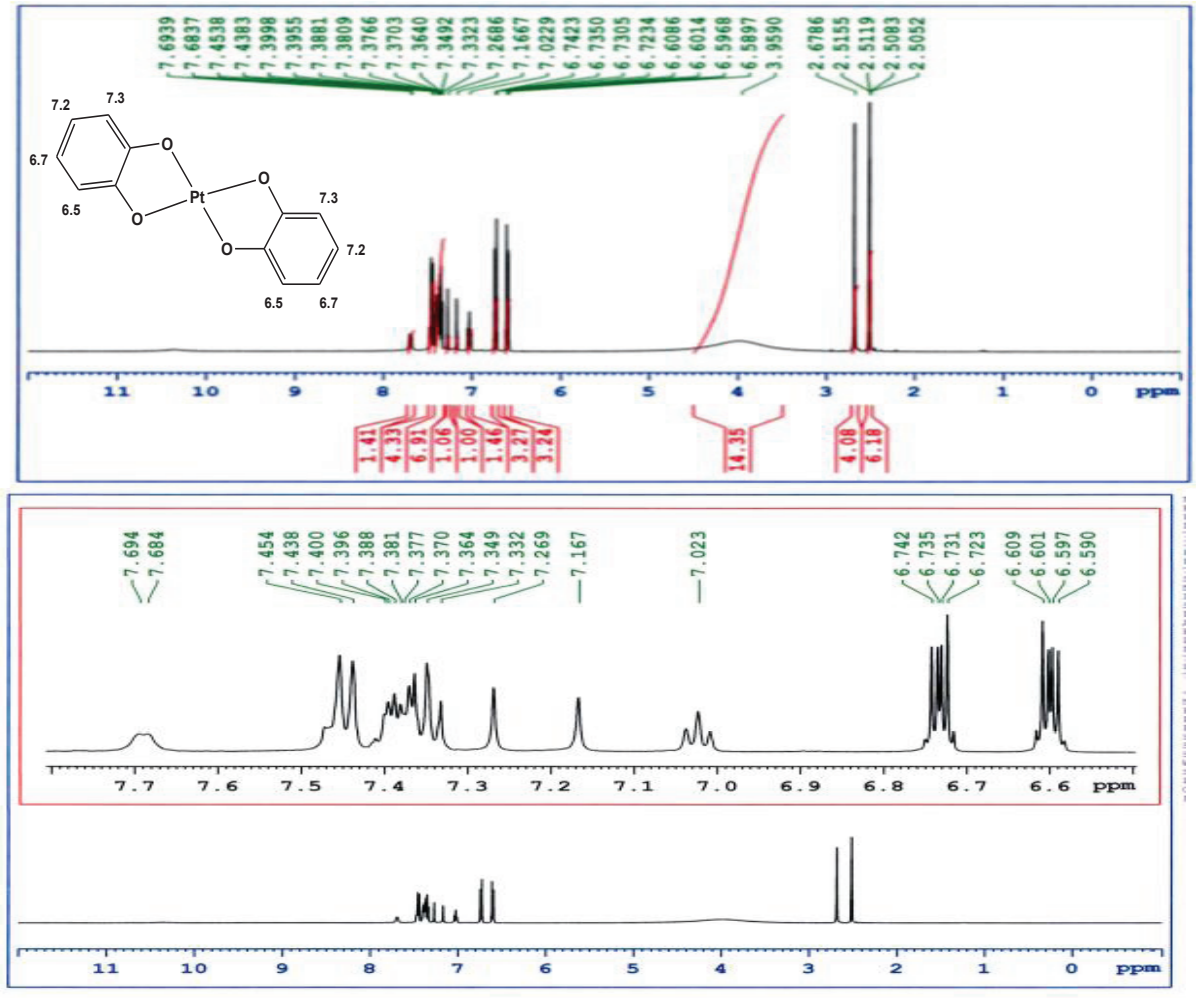
Supplementary Figure 32. ^{13}C NMR spectral patterns of VVA_2 and its plauSupplementary Figure ble molecular structure



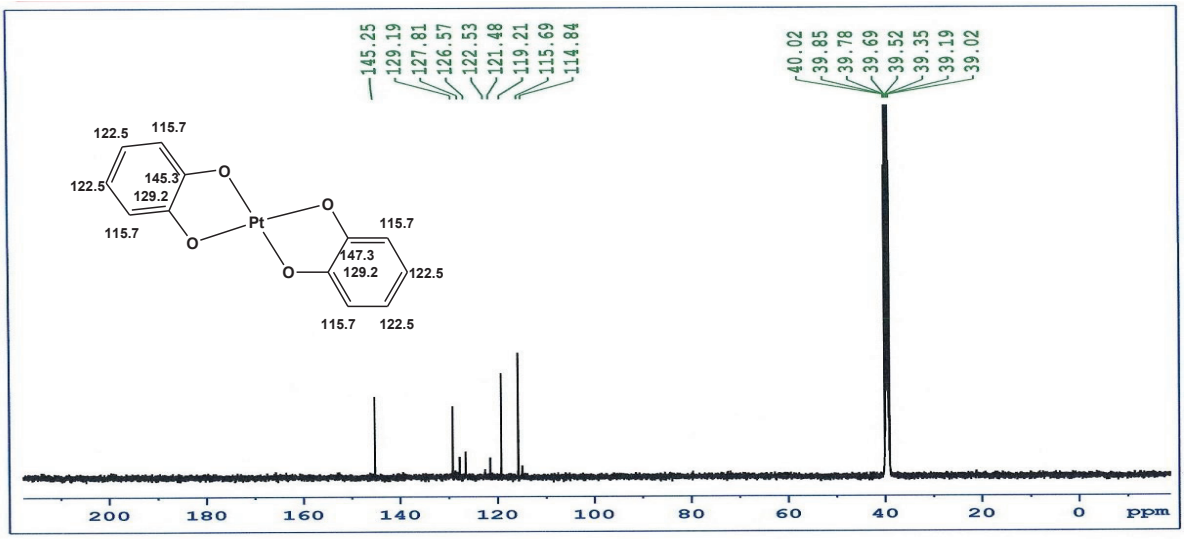
Supplementary Figure 33. ^{1}H NMR spectral patterns of $VPYG_2$



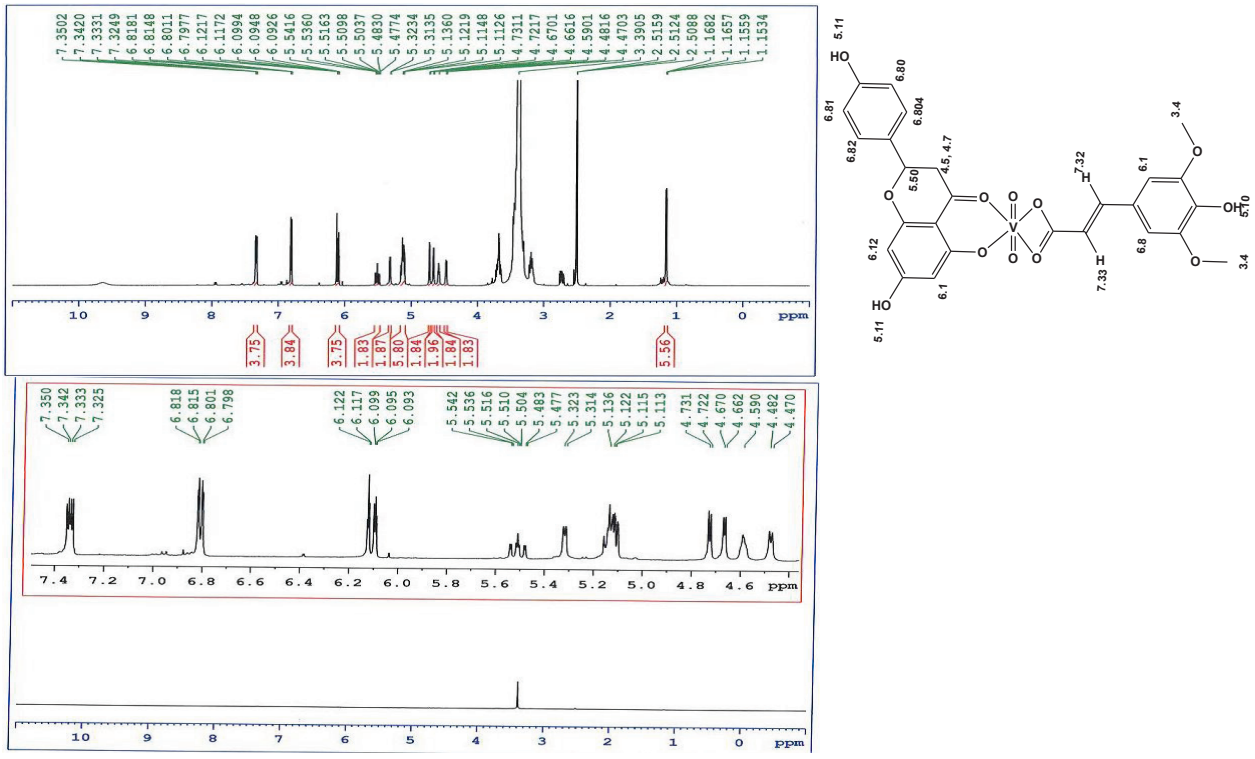
Supplementary Figure 34. ^{13}C NMR spectral patterns of $VPYG_2$



Supplementary Figure 35. ^{1}H NMR spectral patterns of $PtCC_2$



Supplementary Figure 36. ^{13}C NMR spectral patterns of $PtCC_2$



Supplementary Figure 37. ^{1}H NMR spectral patterns of VNRGSA