Electronic Supplementary Material (ESI) for Dalton Transactions.

In vitro and *in vivo* evaluation of organometallic gold (I) derivatives as anticancer agents.

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Supporting information

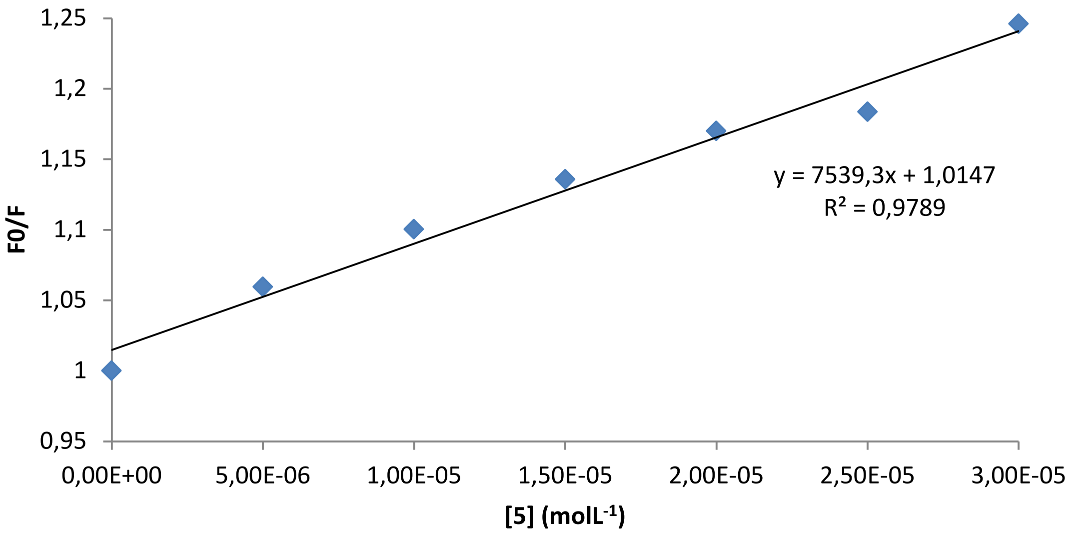

Figure S1. Stern-Volmer plot for the quenching of BSA with complex **5**. Stern-Volmer equation used: $F_0/F = 1 + K_{sv}$ [5].

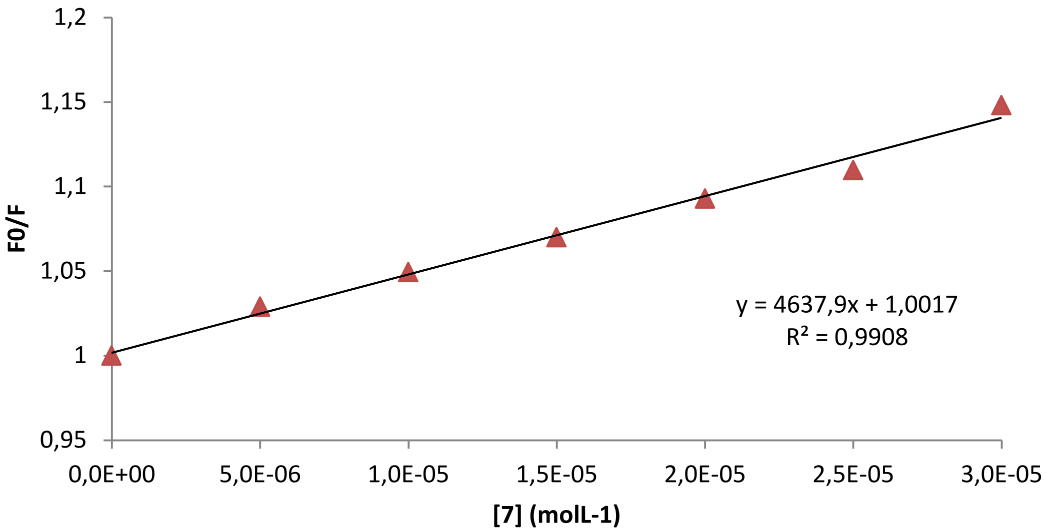

Figure S2. Stern-Volmer plot for the quenching of BSA with complex **7**.

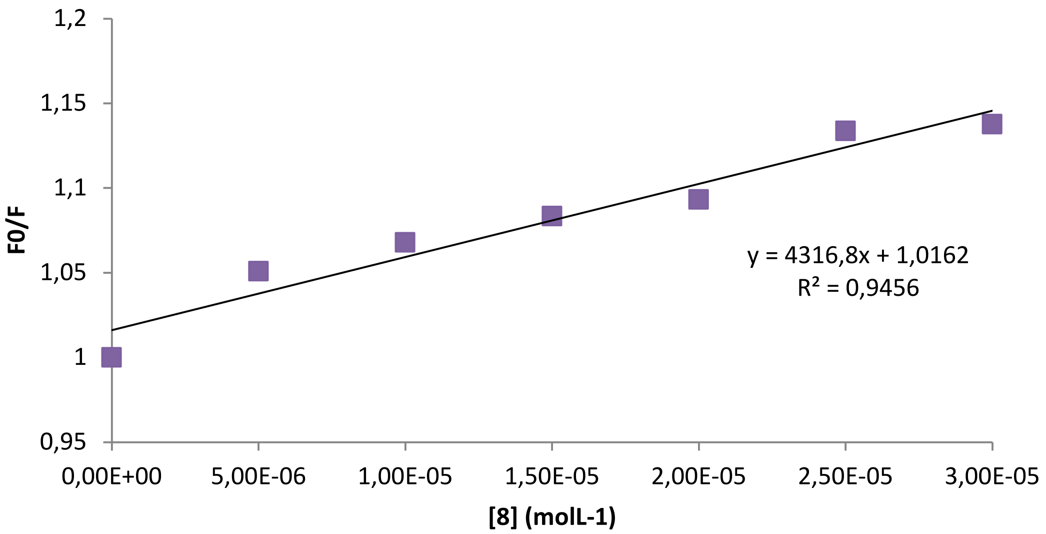

Figure S3. Stern-Volmer plot for the quenching of BSA with complex **8**.

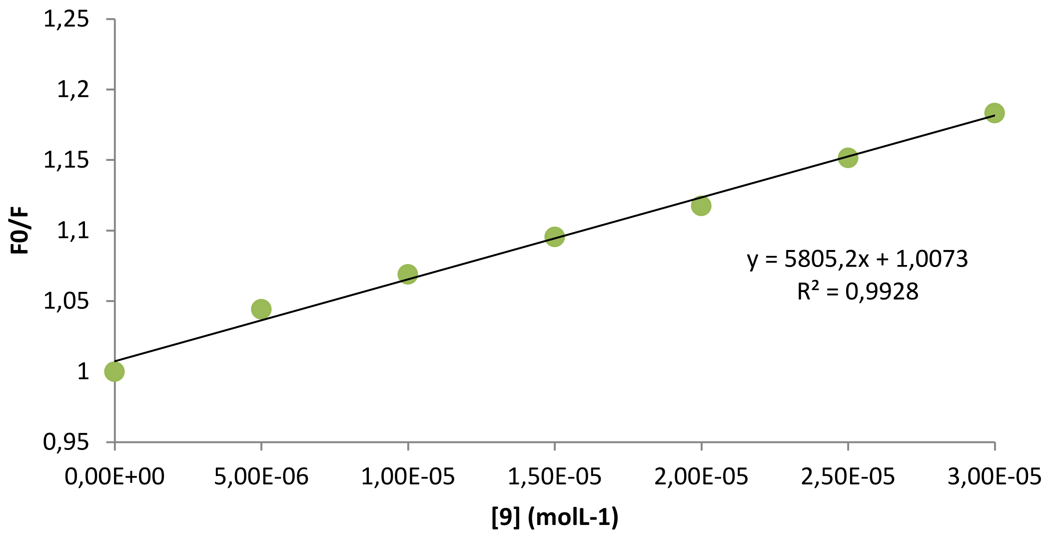

Figure S4. Stern-Volmer plot for the quenching of BSA with complex **9**.

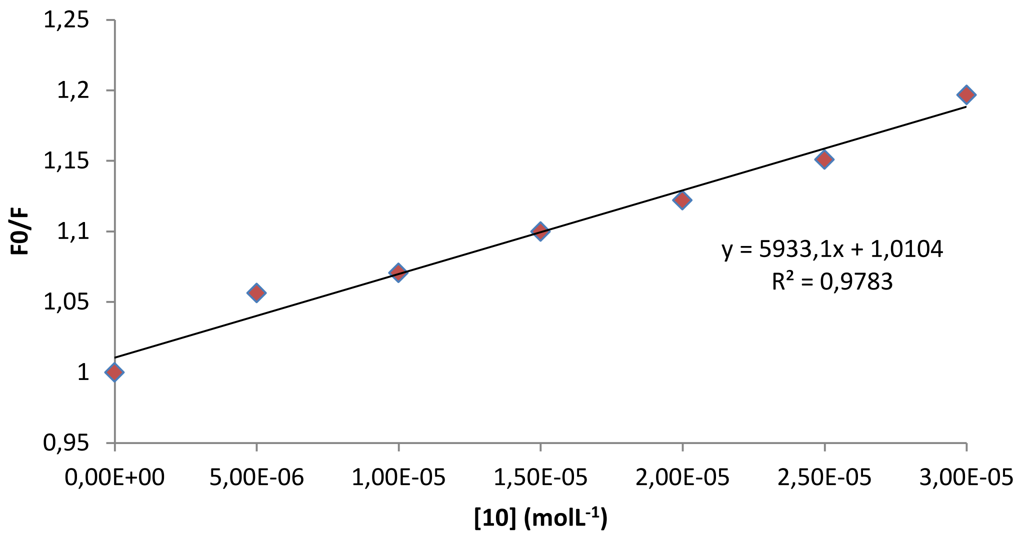

Figure S5. Stern-Volmer plot for the quenching of BSA with complex **10**.

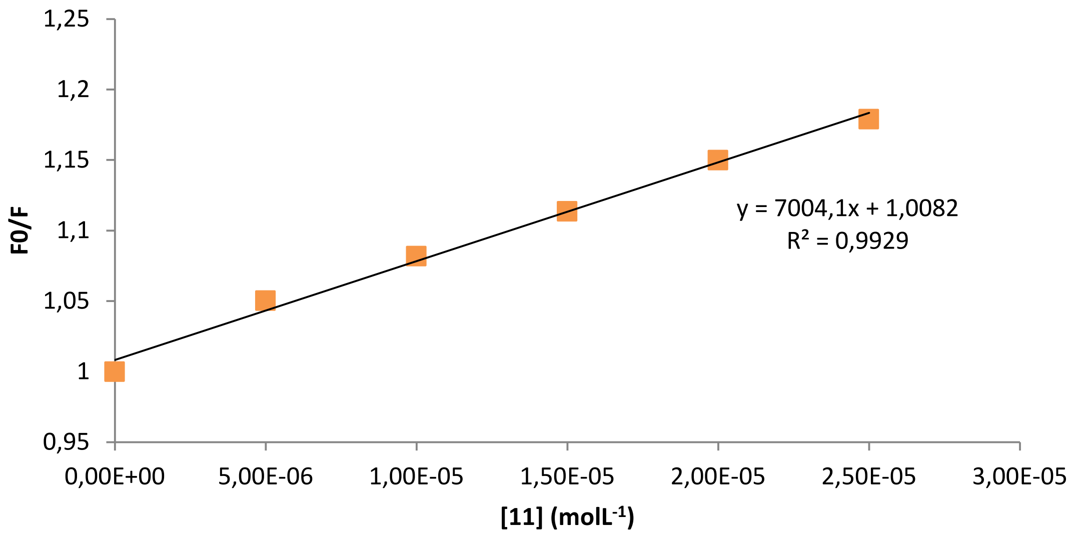

Figure S6. Stern-Volmer plot for the quenching of BSA with complex **11**.

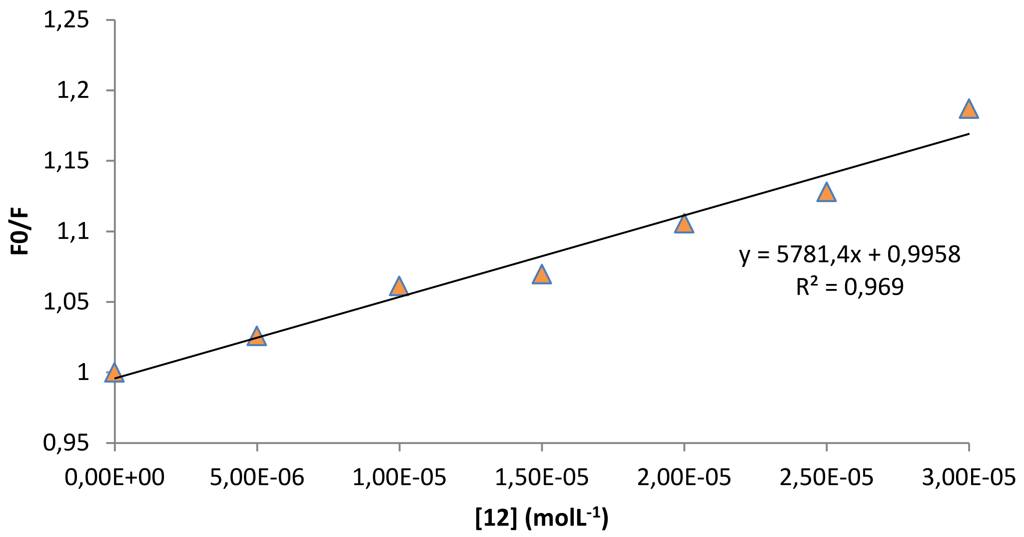

Figure S7. Stern-Volmer plot for the quenching of BSA with complex **12**.

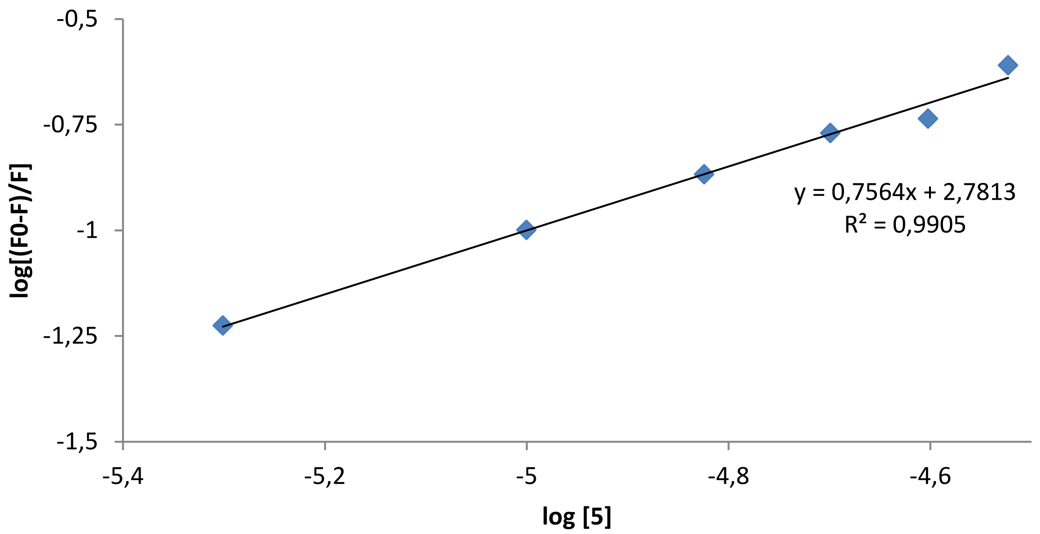

Figure S8. Stern-Volmer equation used: log{(F_0-F)/F} = logK_b + $n$log[**5**]. The intercept of the best fit linear trend provides the Stern-Volmer quenching constant K_b.

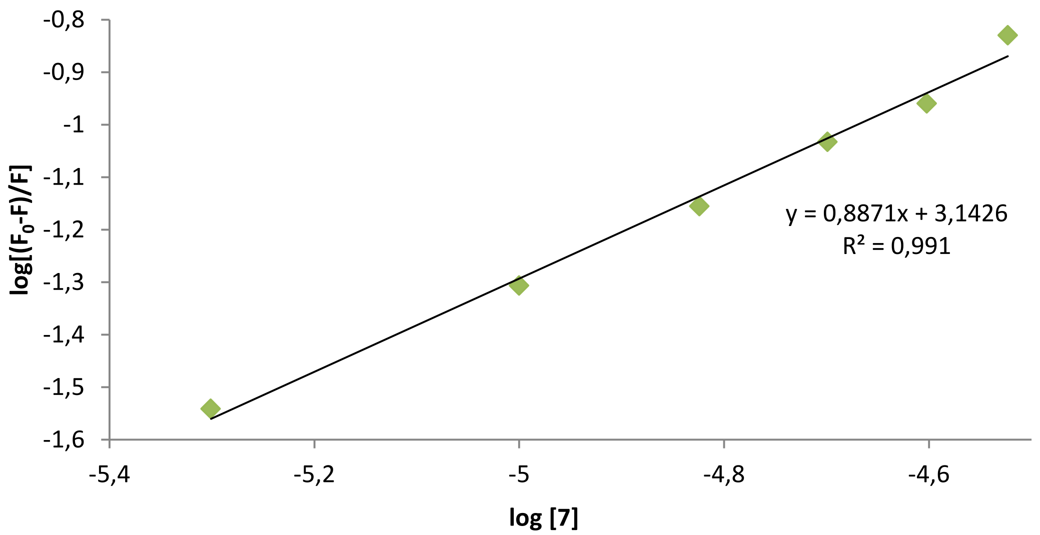

Figure S9. Stern-Volmer plot for the quenching of BSA with complex **7.** Stern-Volmer equation used: log{(F_0-F)/F} = logK_b + $n$log[7].

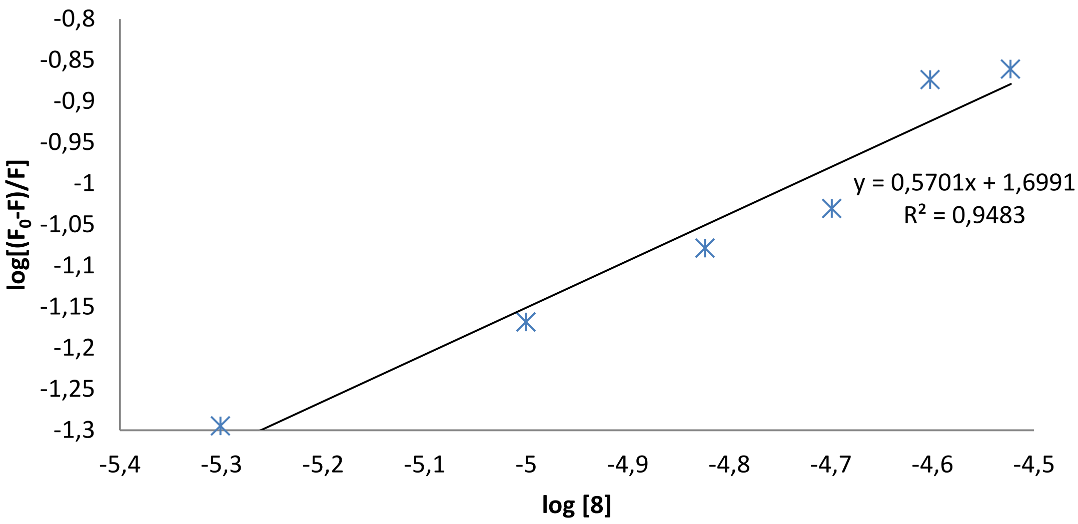

Figure S10. Stern-Volmer plot for the quenching of BSA with complex **8**. Stern-Volmer equation used: log{(F_0-F)/F} = logK_b + $n$log[8].

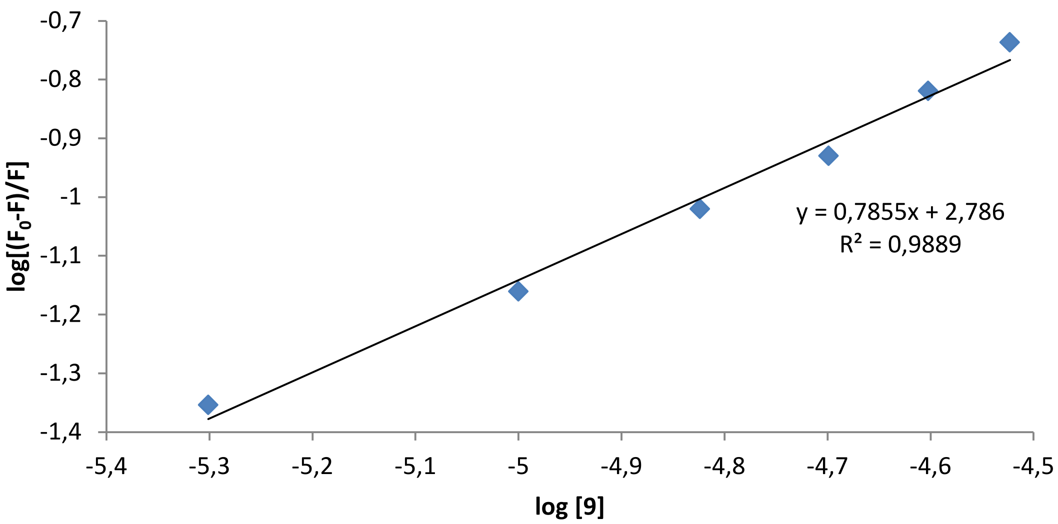

Figure S11. Stern-Volmer plot for the quenching of BSA with complex **9**. Stern-Volmer equation used: log{(F_0-F)/F} = logK_b + $n$log[9].

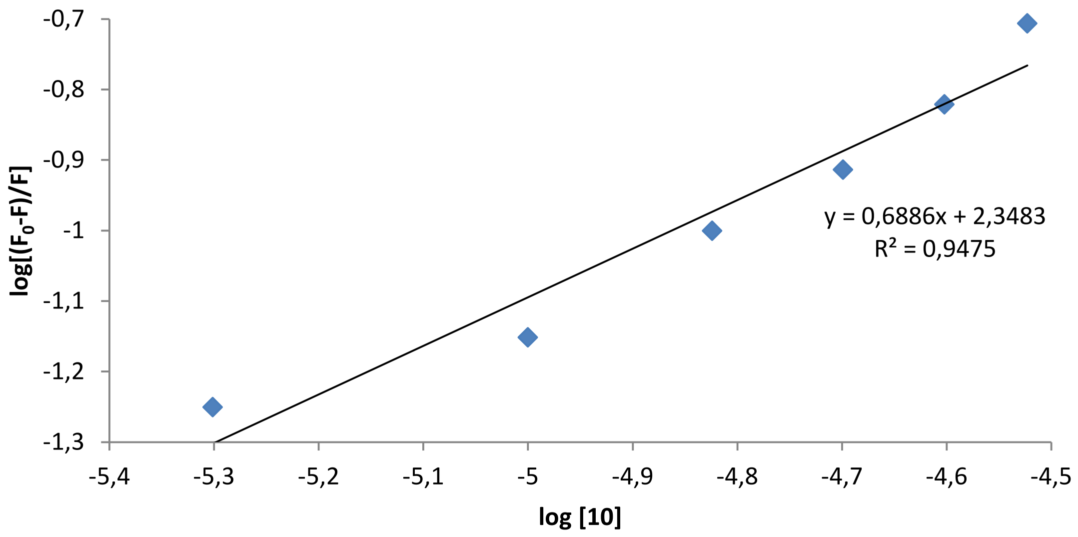

Figure S12. Stern-Volmer plot for the quenching of BSA with complex **10**. Stern-Volmer equation used: log{(F_0-F)/F} = logK_b + $n$log [10].

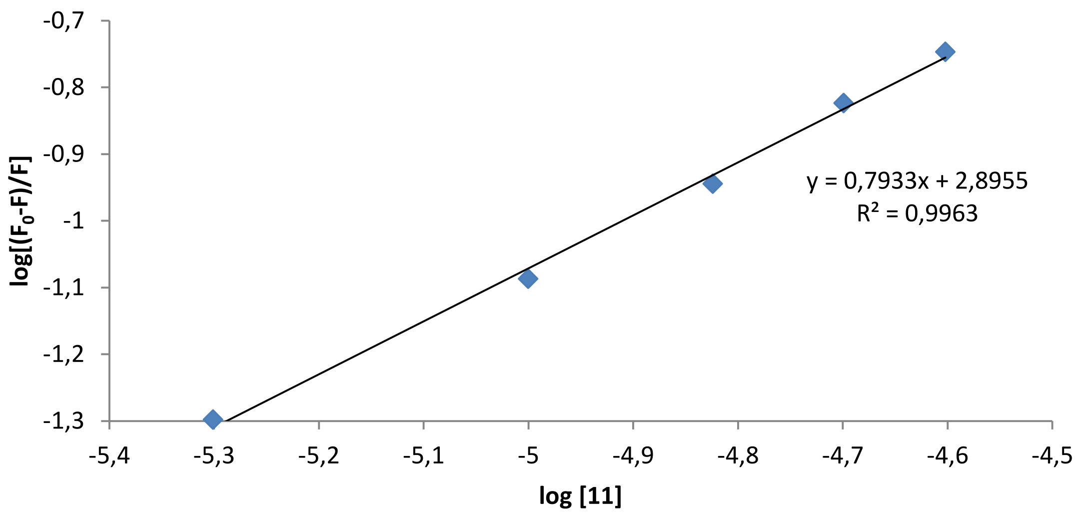

Figure S13. Stern-Volmer plot for the quenching of BSA with complex **11.** Stern-Volmer equation used: log{(F_0-F)/F} = logK_b + $n$log [11].

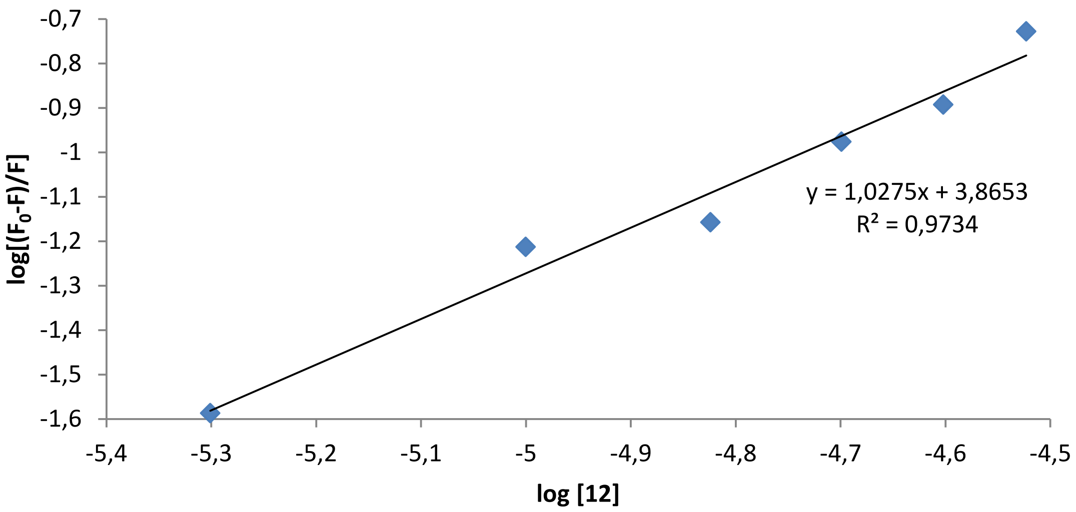

Figure S14. Stern-Volmer plot for the quenching of BSA with complex **12.** Stern-Volmer equation used: log{(F_0-F)/F} = logK_b + $n$log [12].

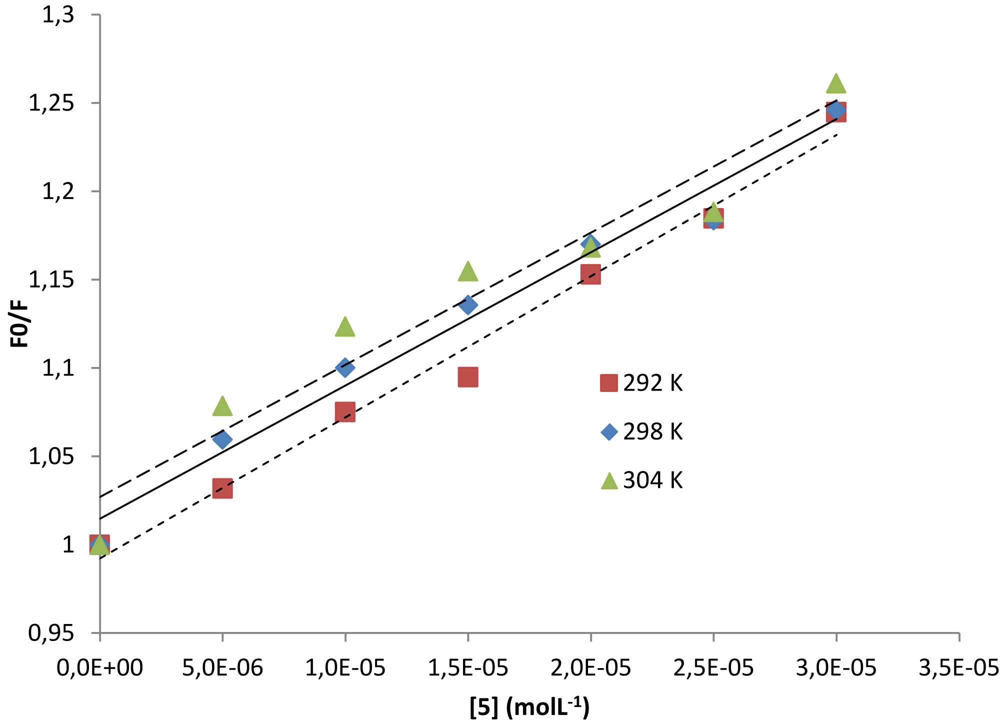

Figure S15. Stern-Volmer plot for the quenching of BSA with complex **5** at different temperatures. Stern-Volmer equation used: F_0/F = 1 + K_{sv} [5].

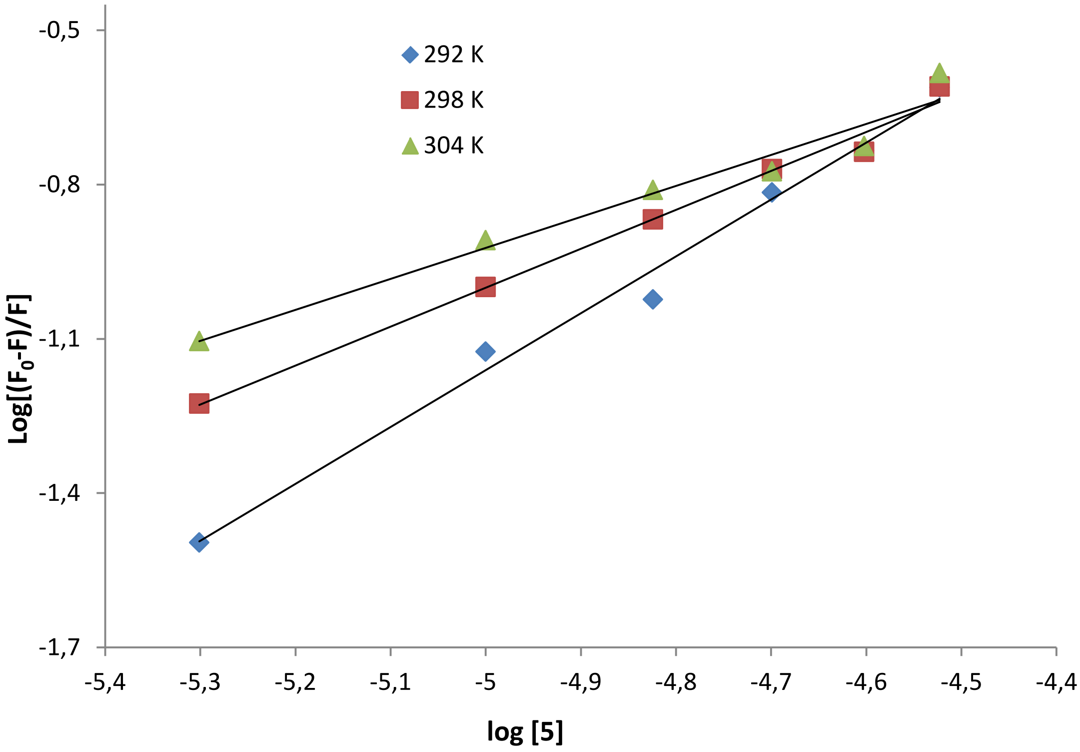

Figure S16. Plot of log{(F_0-F)/F} versus log [**5**] at different temperatures.

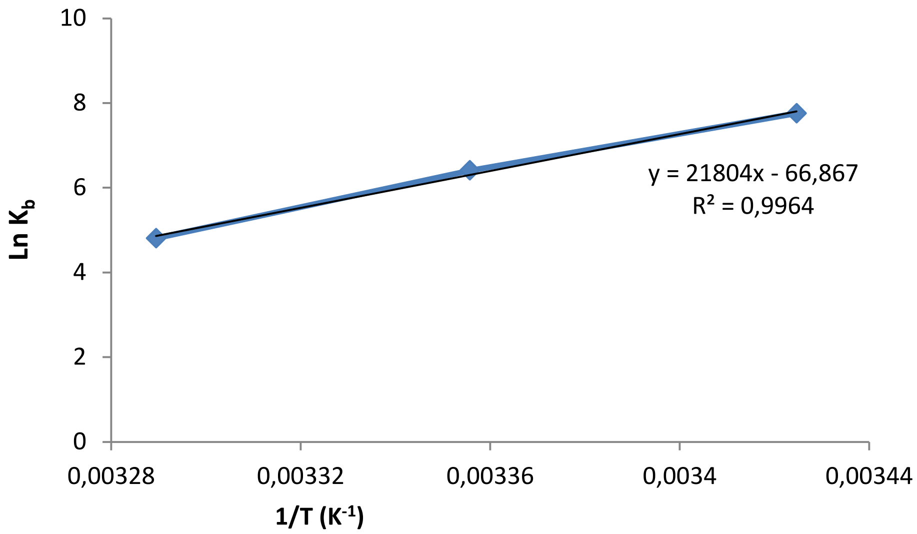

Figure S17. Plot of LnK_b of complex **5** versus 1/T

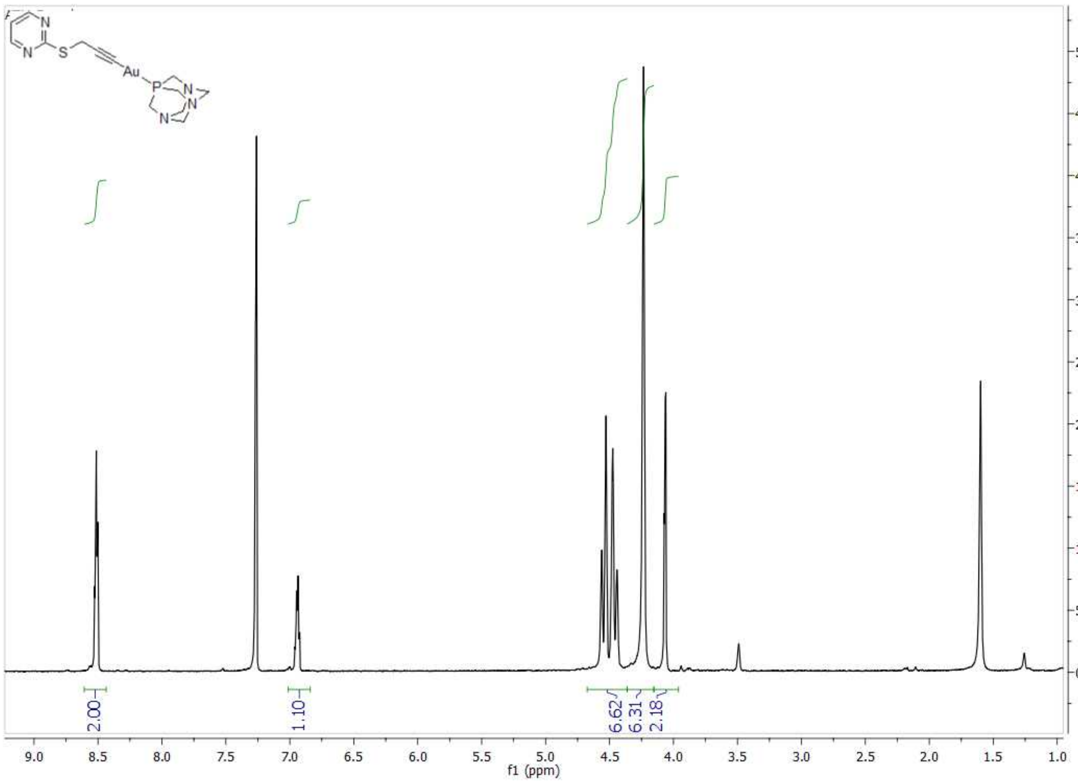

Figure S18. ^{1}H NMR of compound **7**

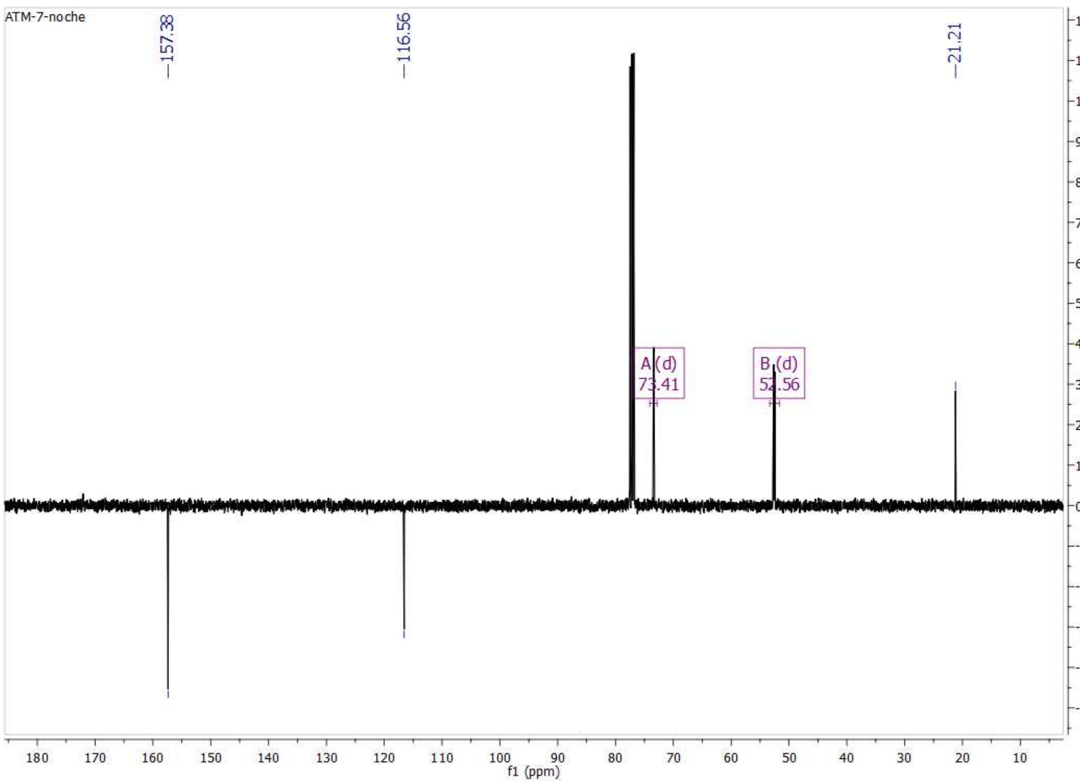

Figure S19. ^{13}C{^{1}H} NMR of compound **7**

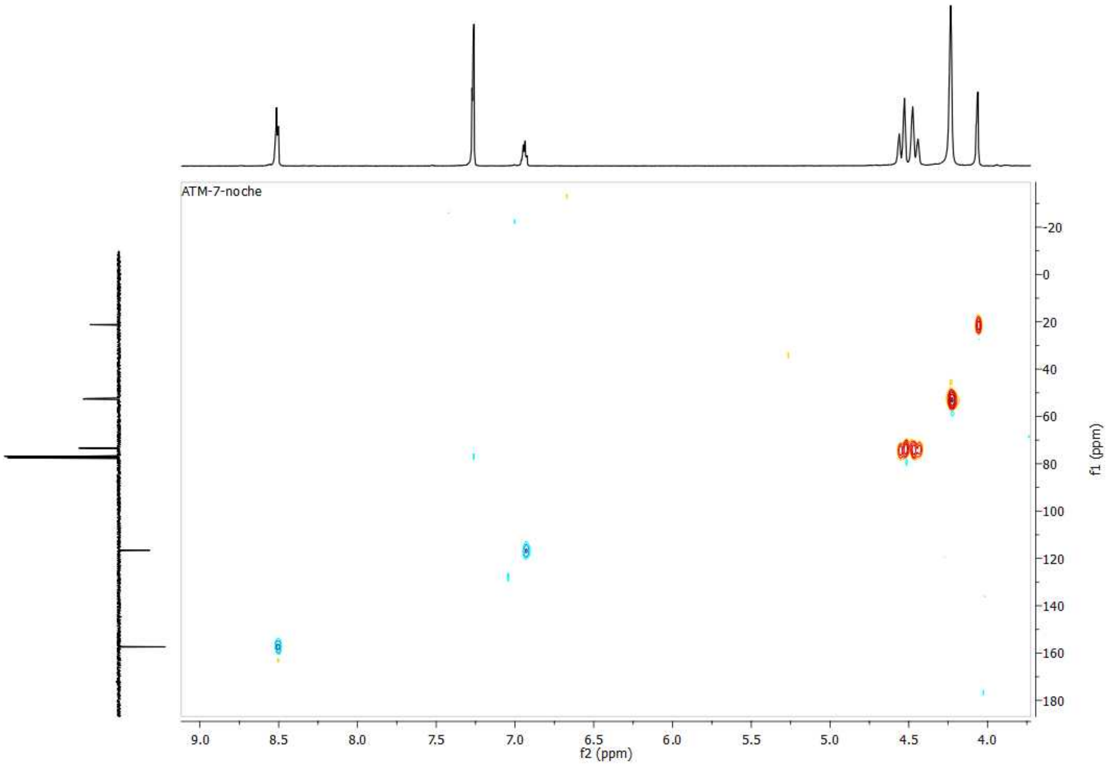

Figure S20. C,H-HSQC NMR of compound **7**

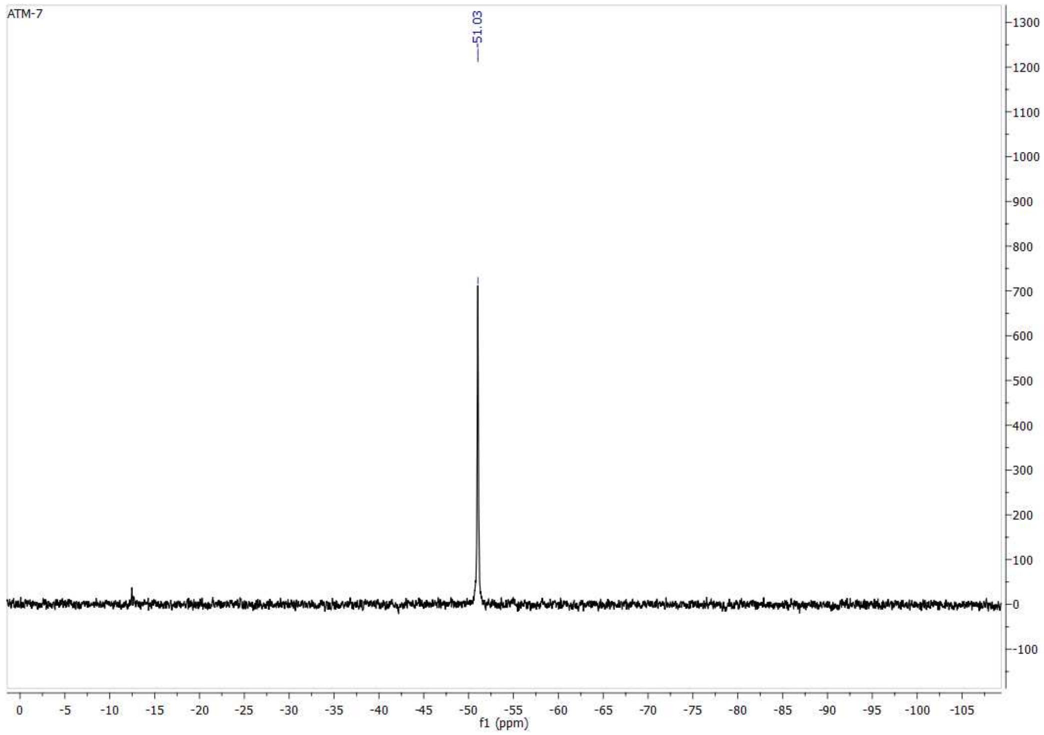

Figure S21. $^{31}P\{^{1}H\}$ NMR of compound **7**

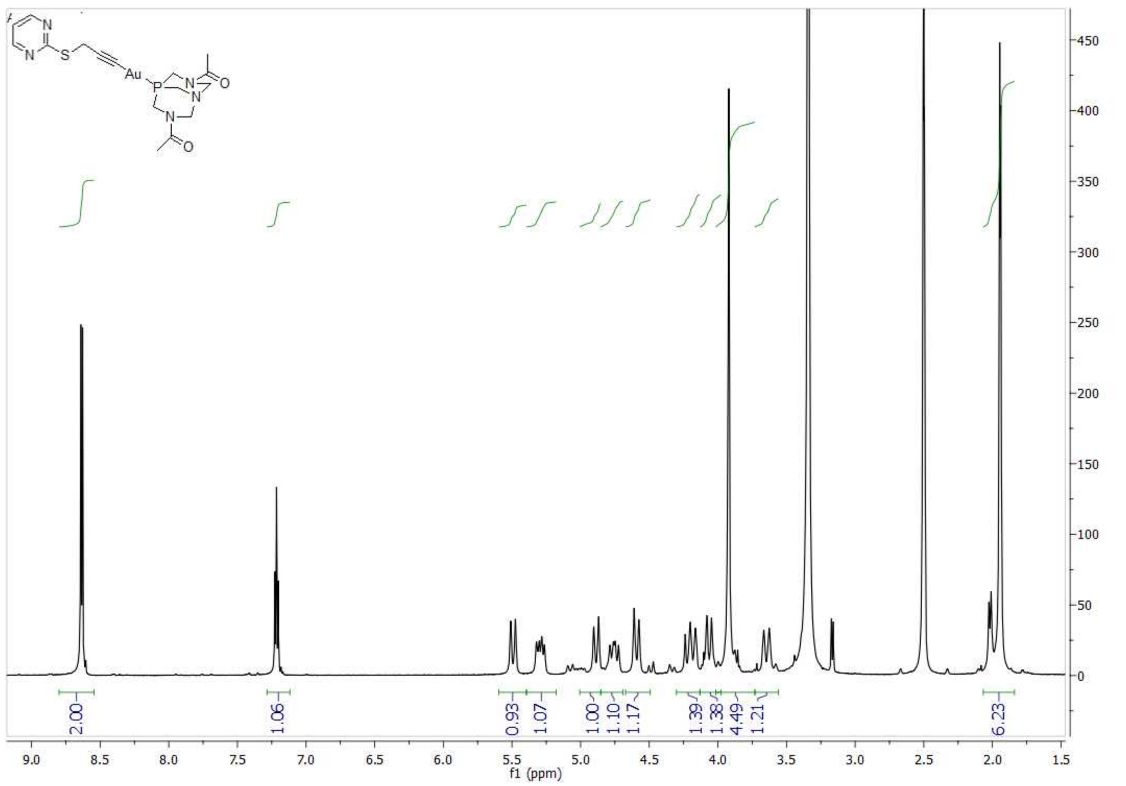

Figure S22. ^{1}H NMR of compound **8**

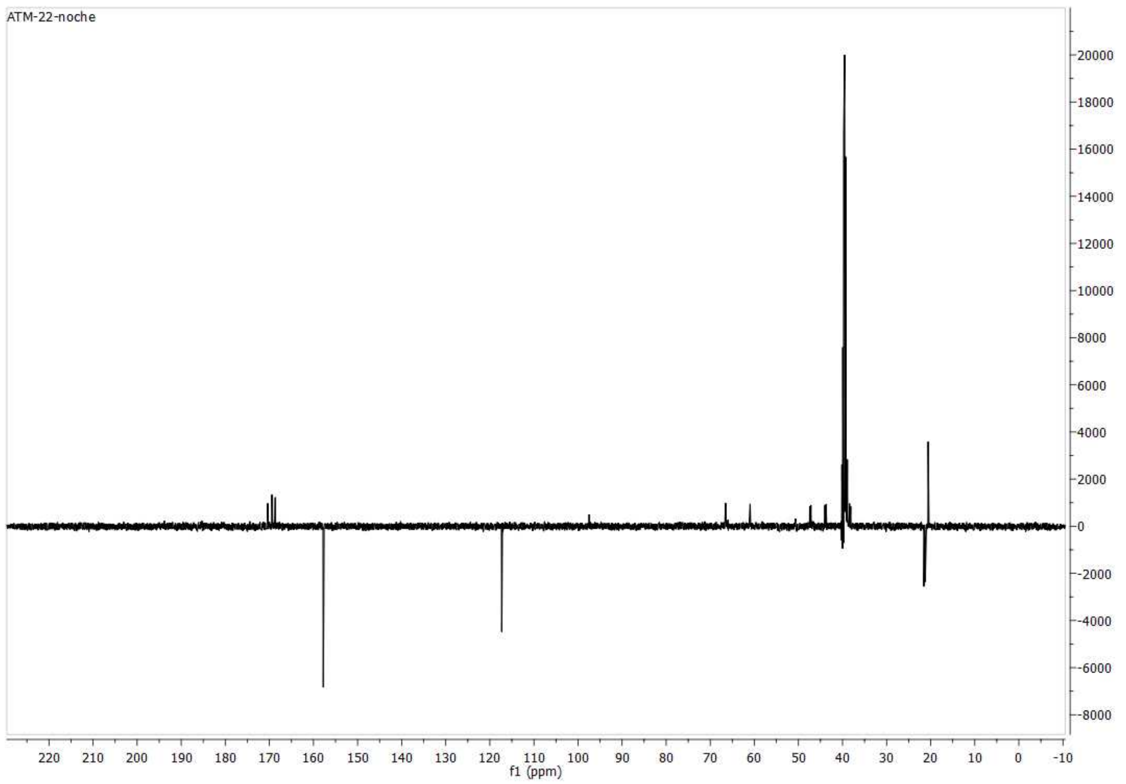

Figure S23. $^{13}C\{^{1}H\}$ NMR of compound **8**

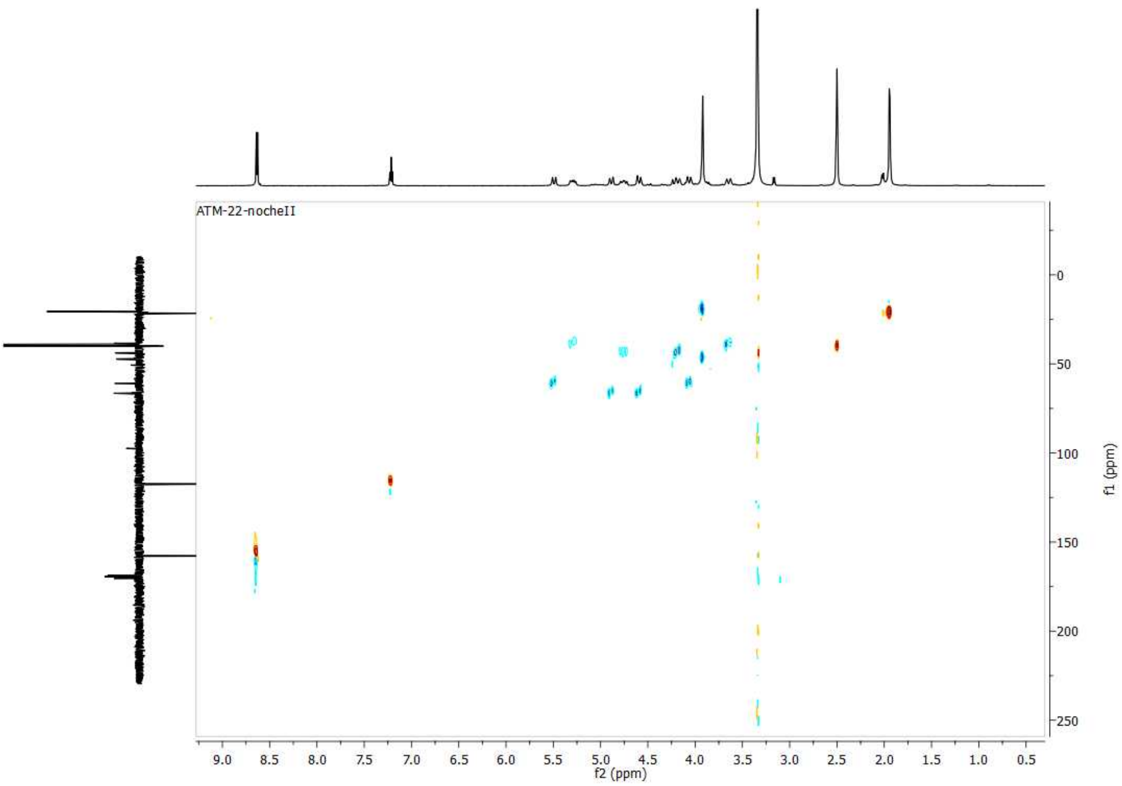

Figure S24. C,H-HSQC NMR of compound **8**

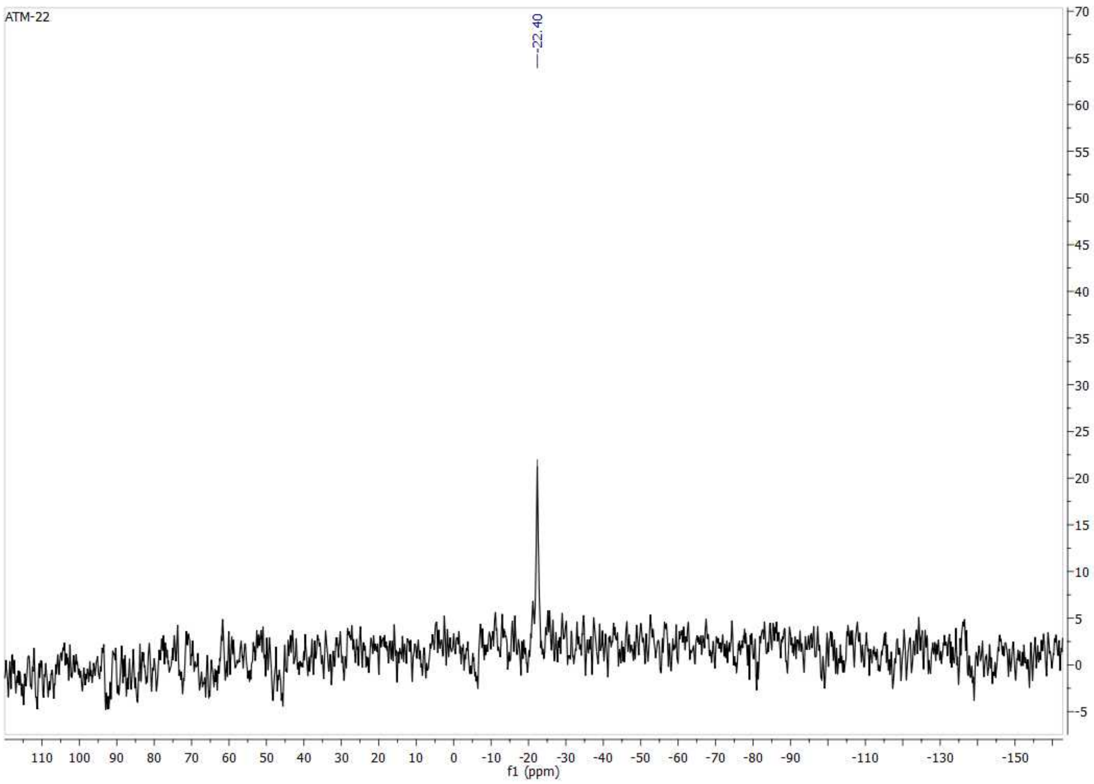

Figure S25. $^{31}P\{^{1}H\}$ NMR of compound **8**

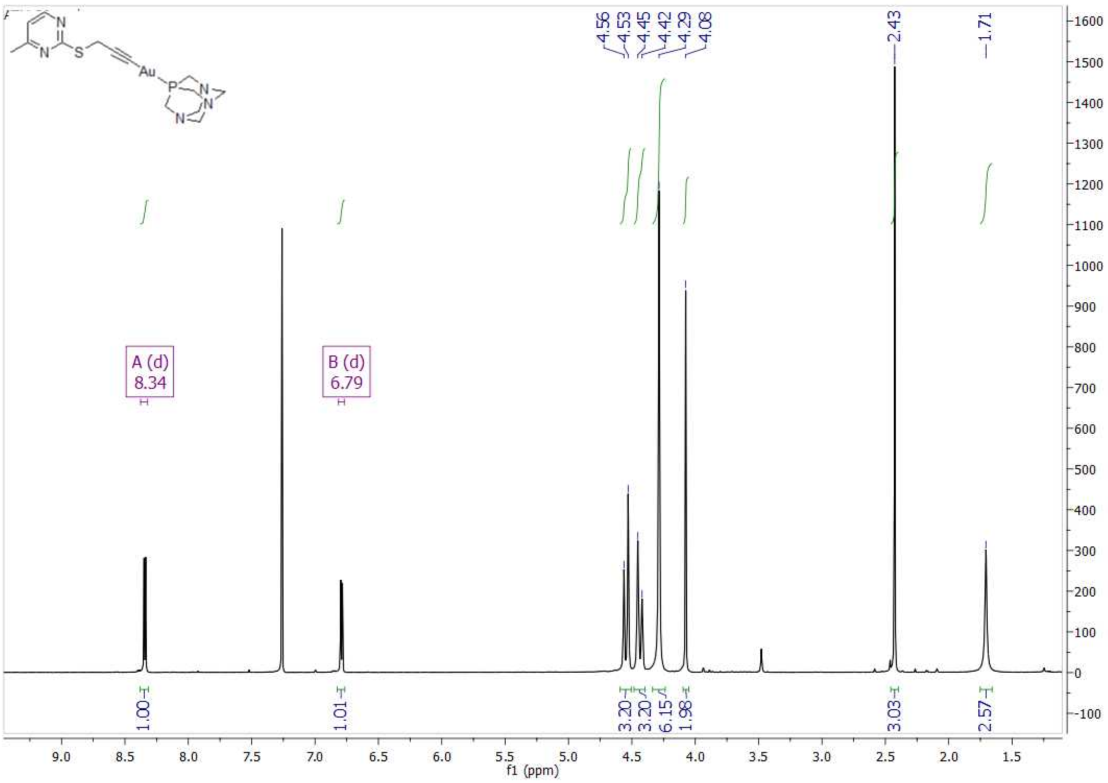

Figure S26. ^{1}H NMR of compound **9**

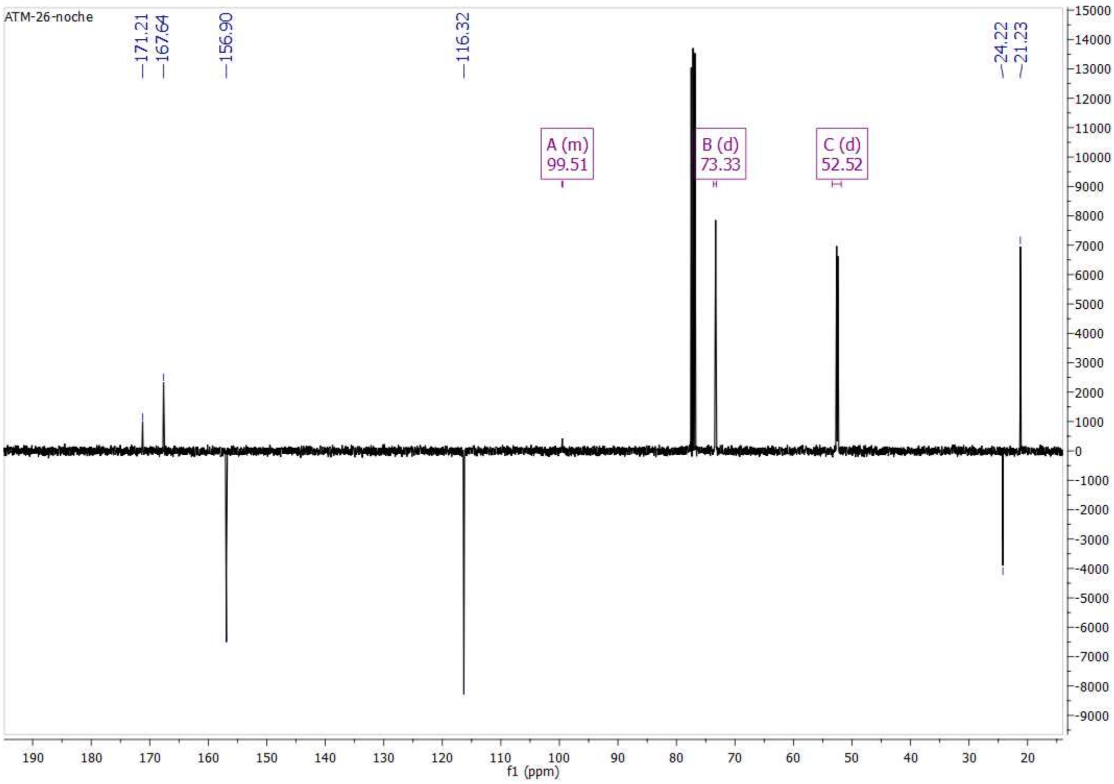

Figure S27. $^{13}C\{^{1}H\}$ NMR of compound **9**

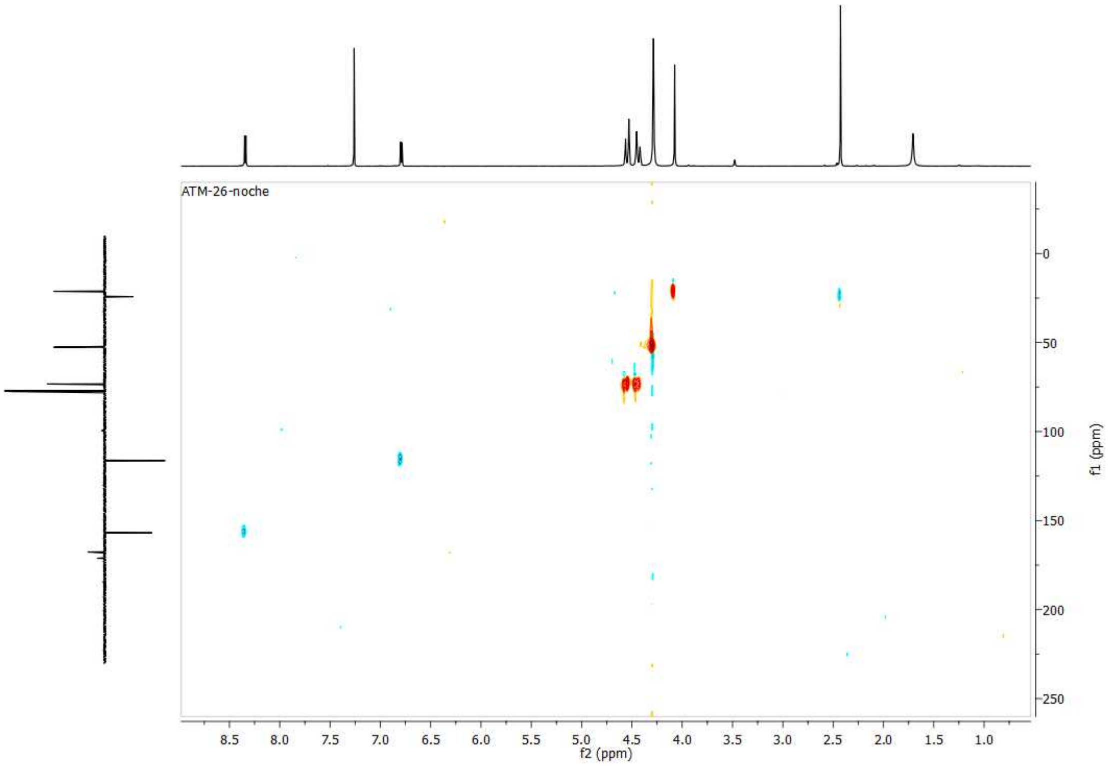

Figure S28. C,H-HSQC NMR of compound **9**

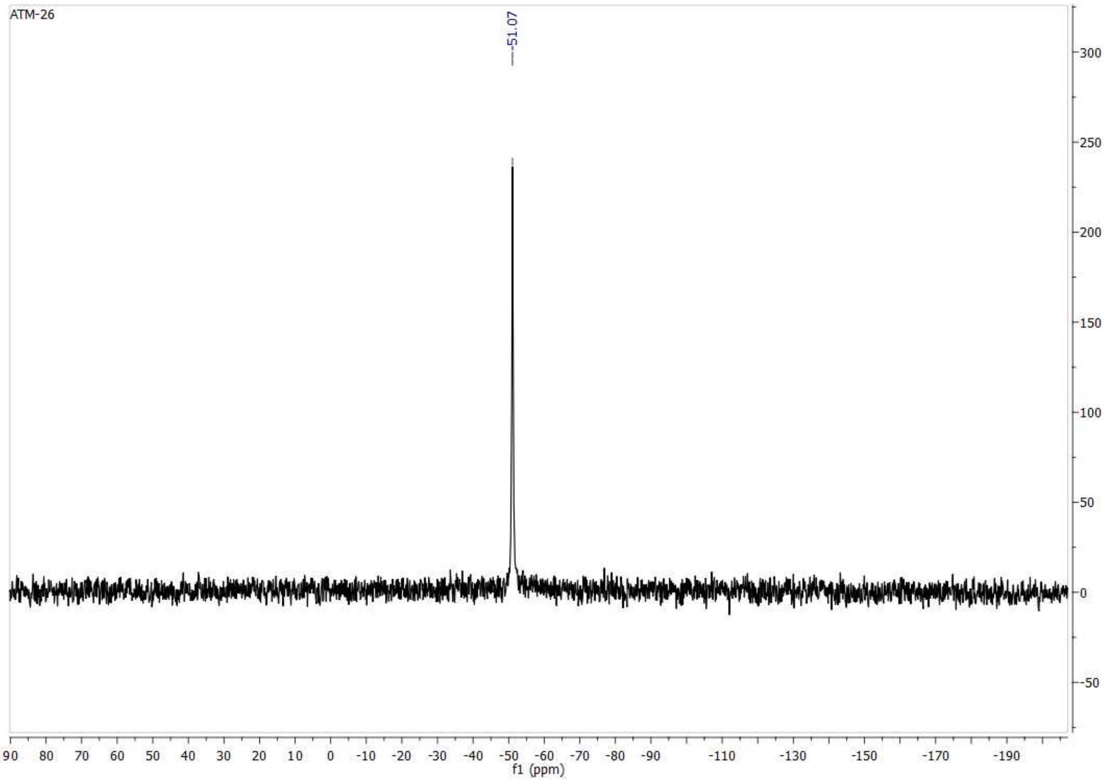

Figure S29. $^{31}P\{^1H\}$ NMR of compound **9**

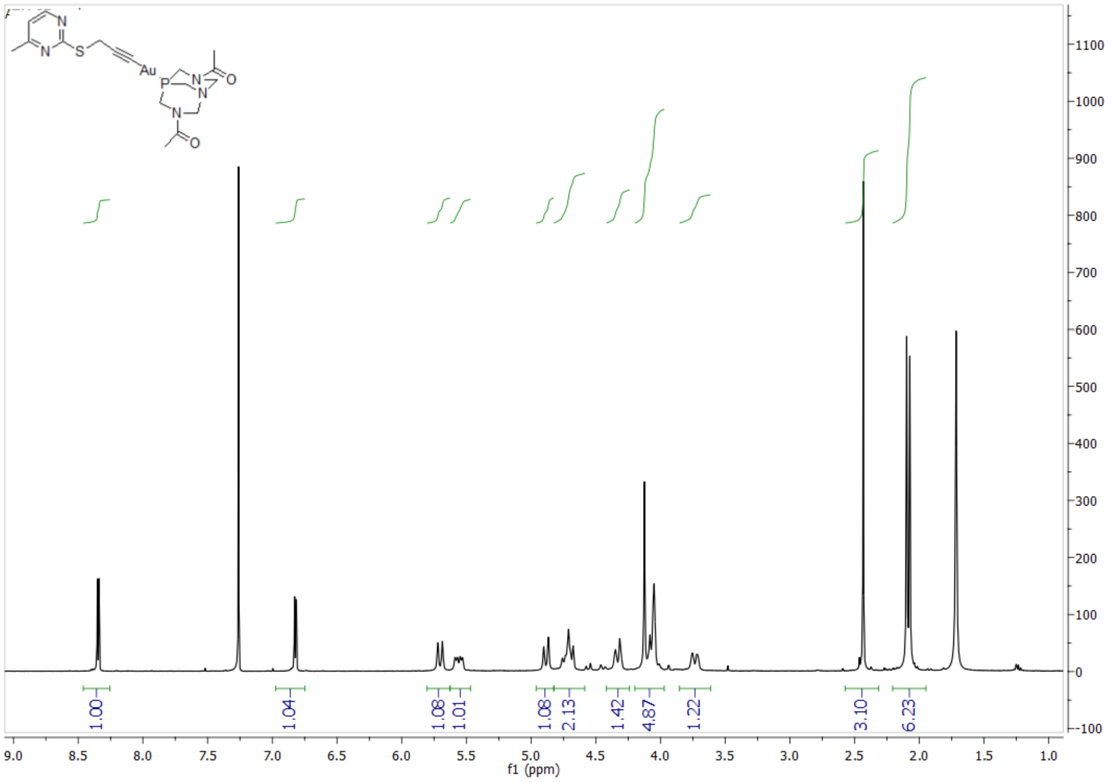

Figure S30. ^{1}H NMR of compound **10**

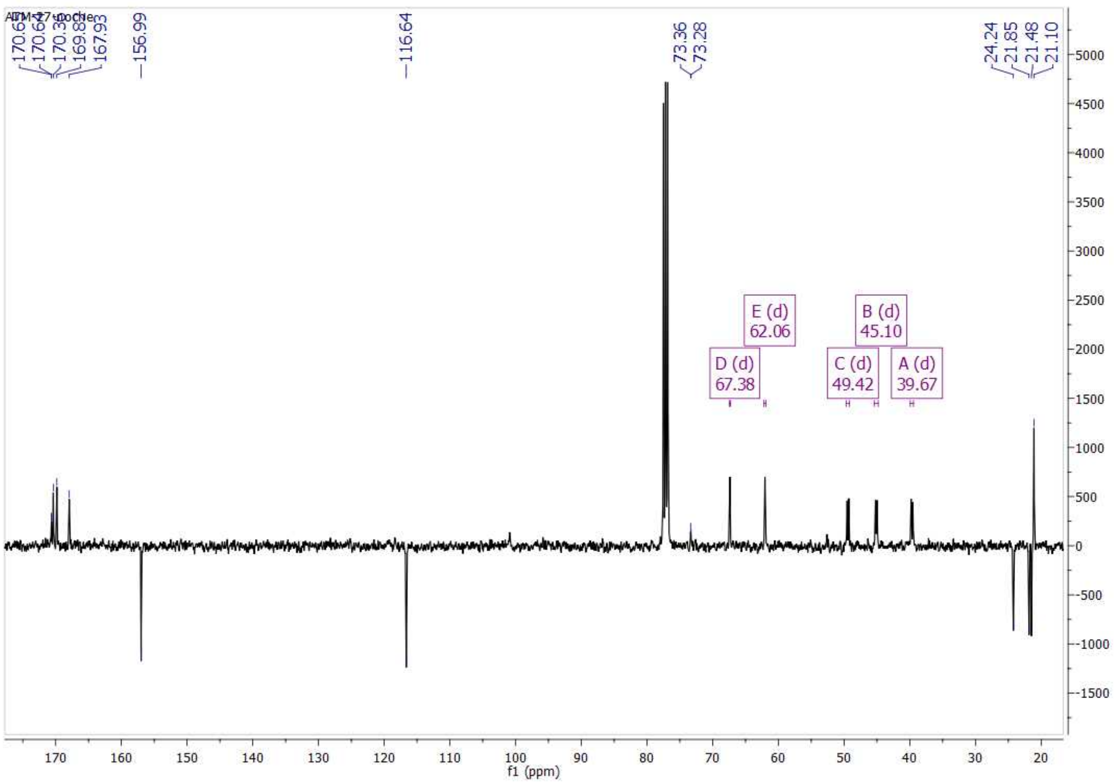

Figure S31. $^{13}C\{^{1}H\}$ NMR of compound **10**

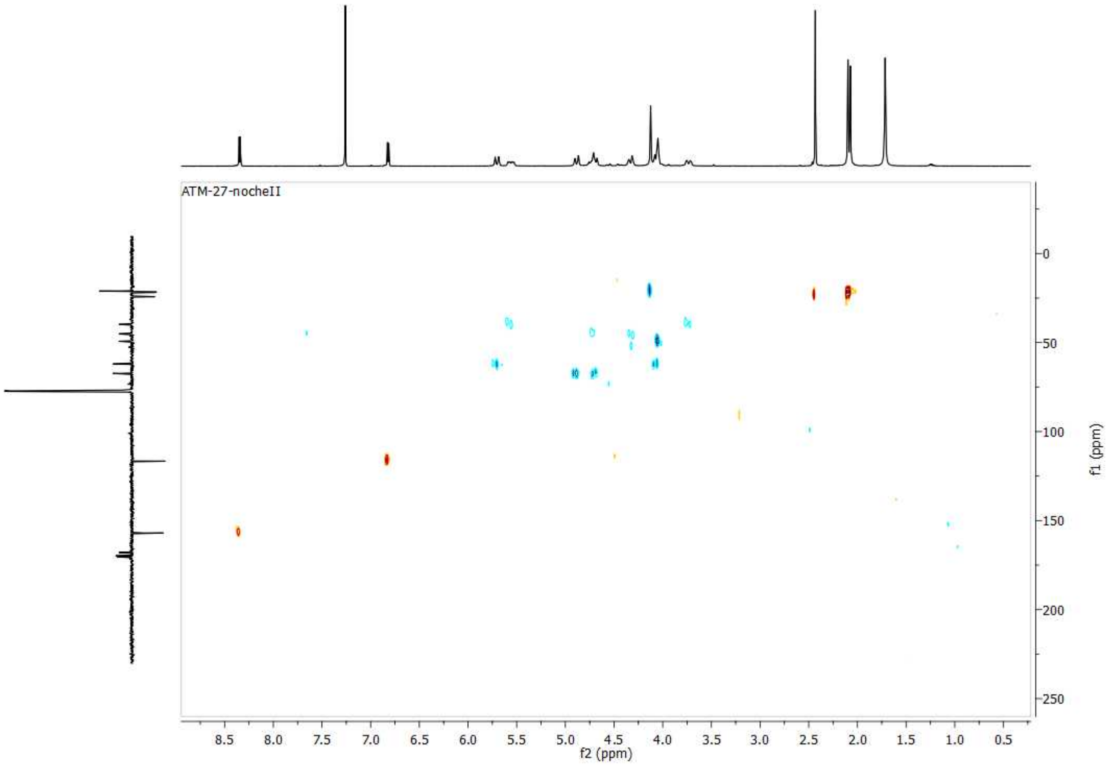

Figure S32. C,H-HSQC NMR of compound **10**

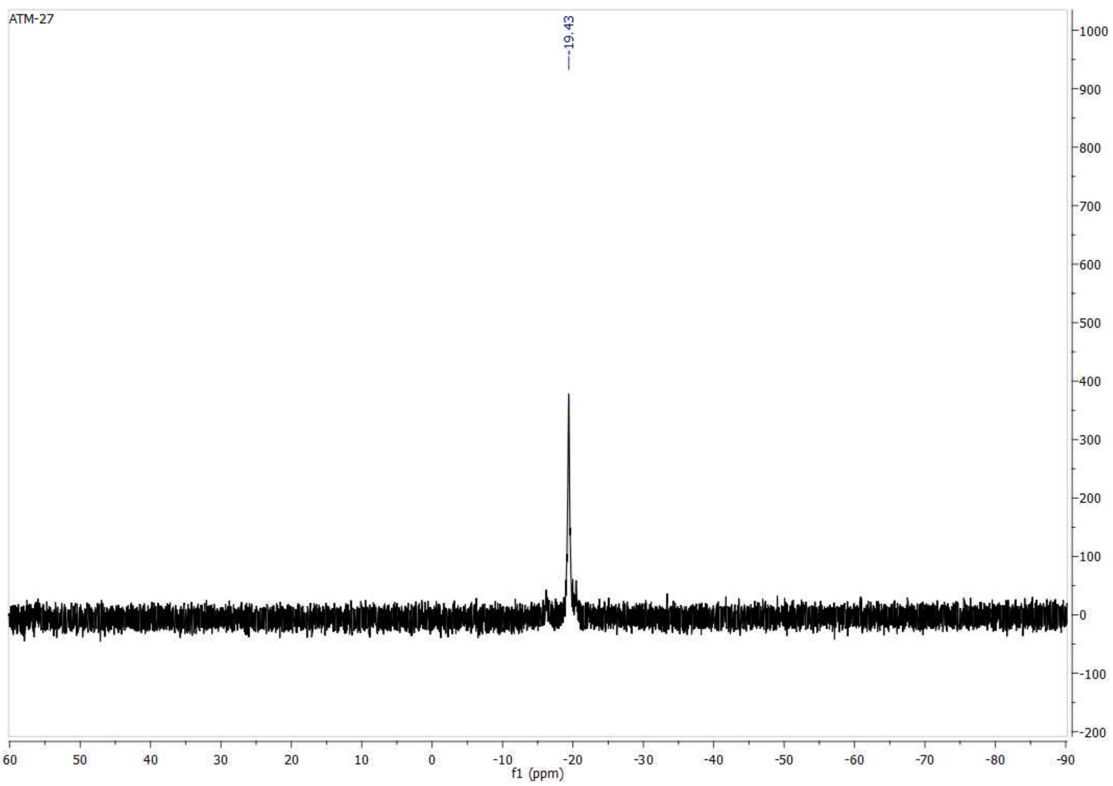

Figure S33. $^{31}P\{^1H\}$ NMR of compound **10**

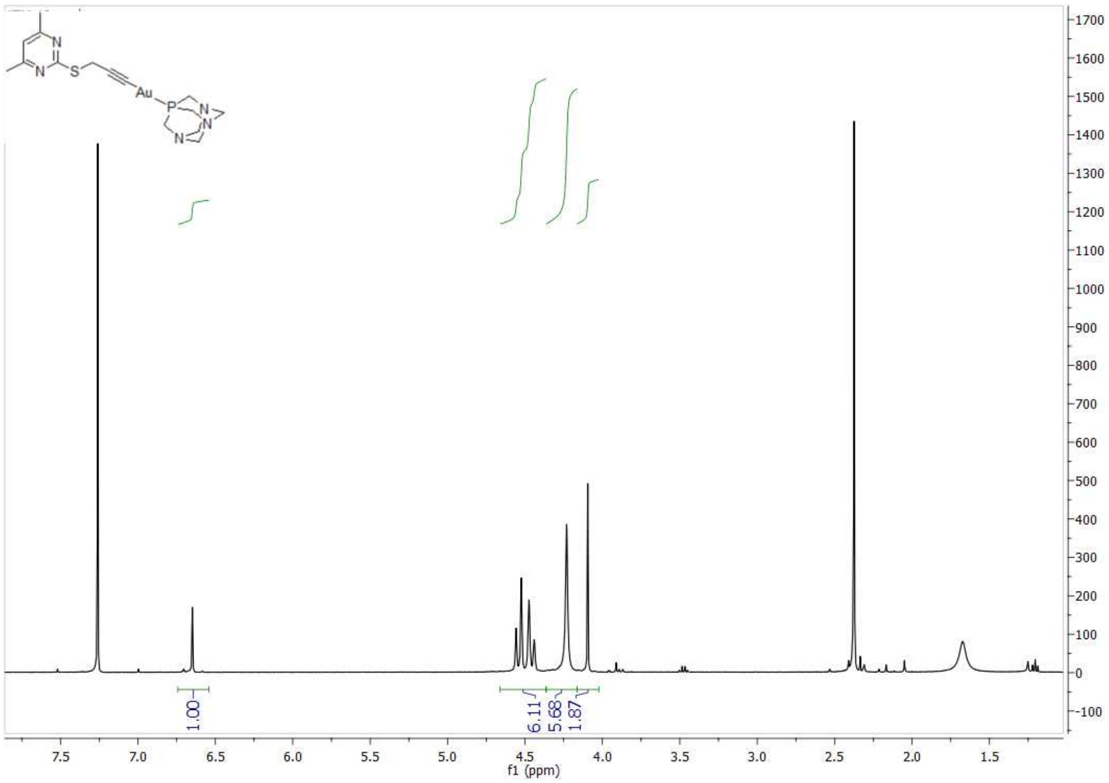

Figure S34. ^{1}H NMR of compound **11**

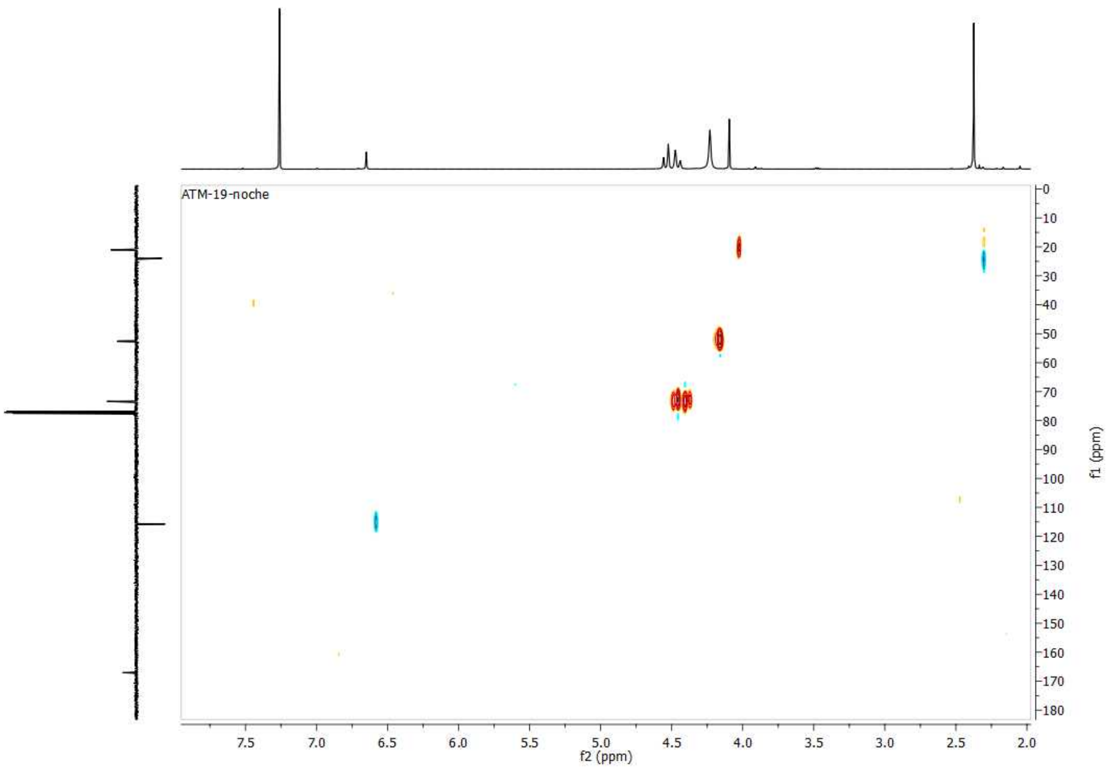

Figure S35. C,H-HSQC NMR of compound **11**

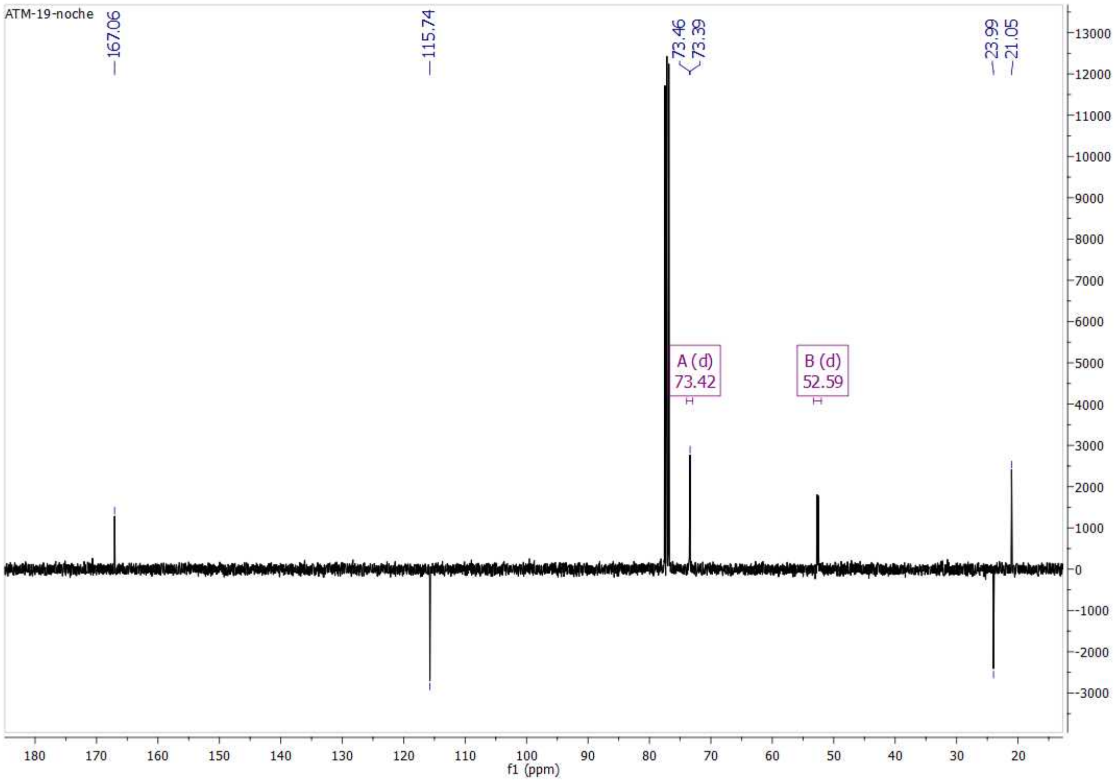

Figure S36. $^{13}C\{^{1}H\}$ NMR of compound **11**

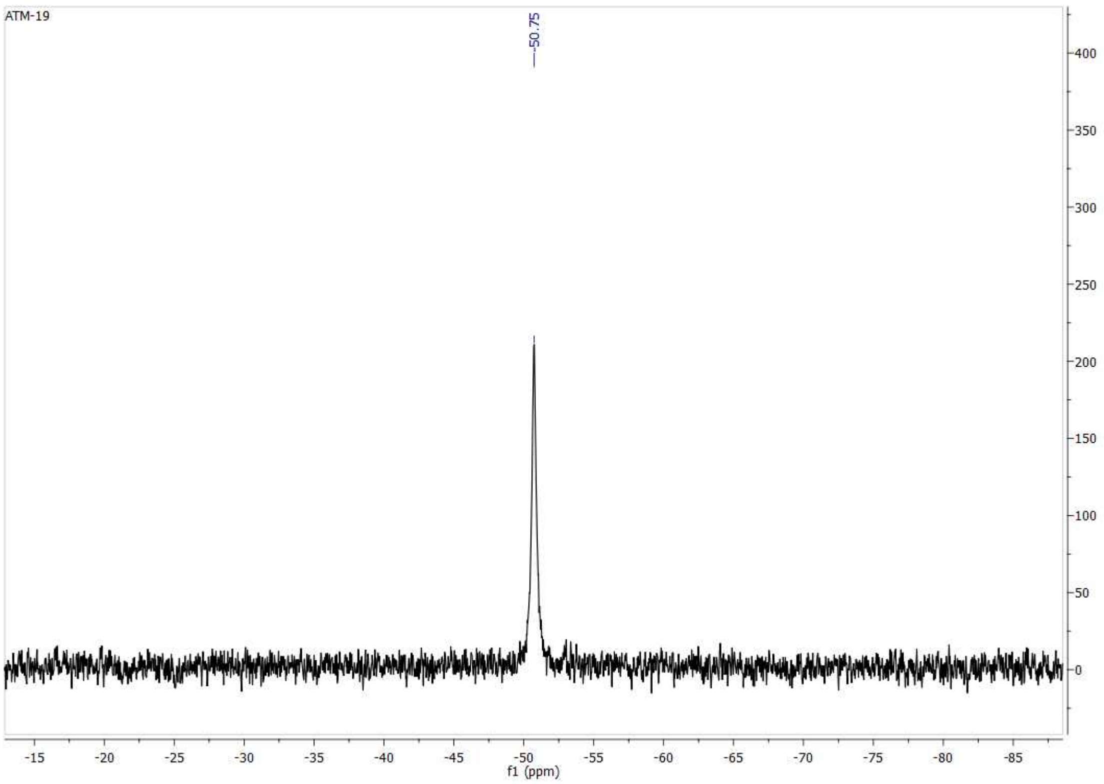

Figure S37. $^{31}P\{^{1}H\}$ NMR of compound **11**

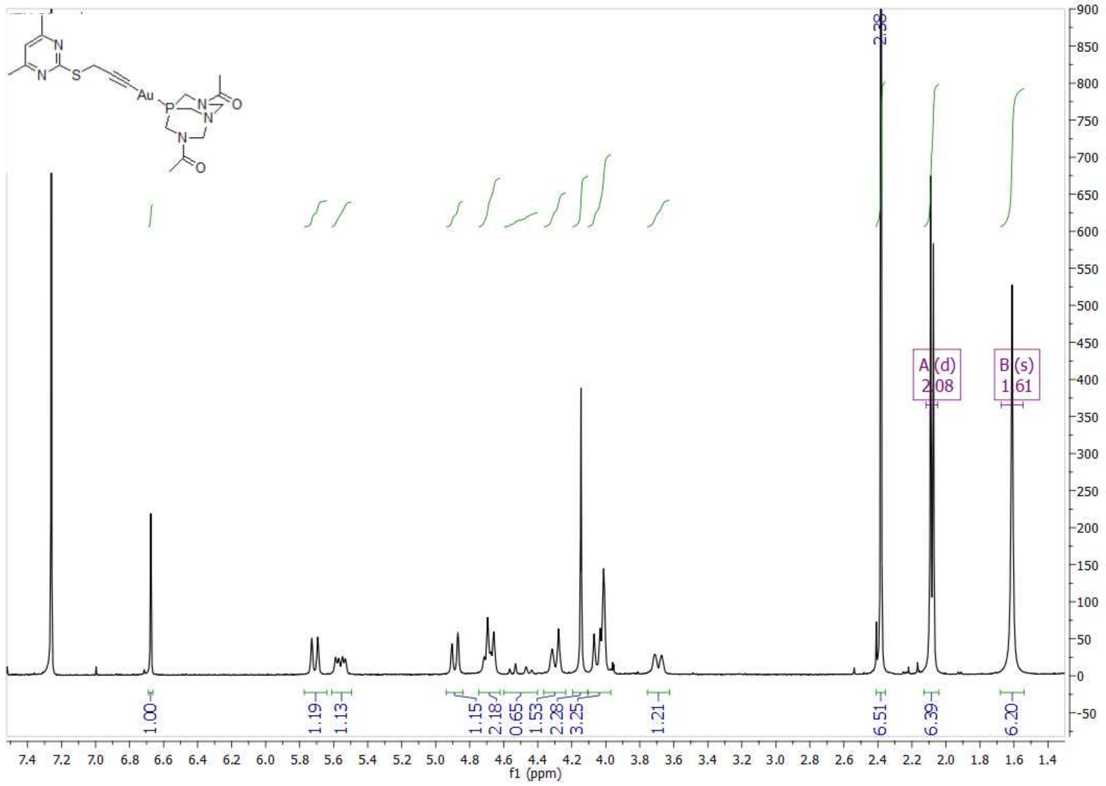

Figure S38. ^{1}H NMR of compound **12**

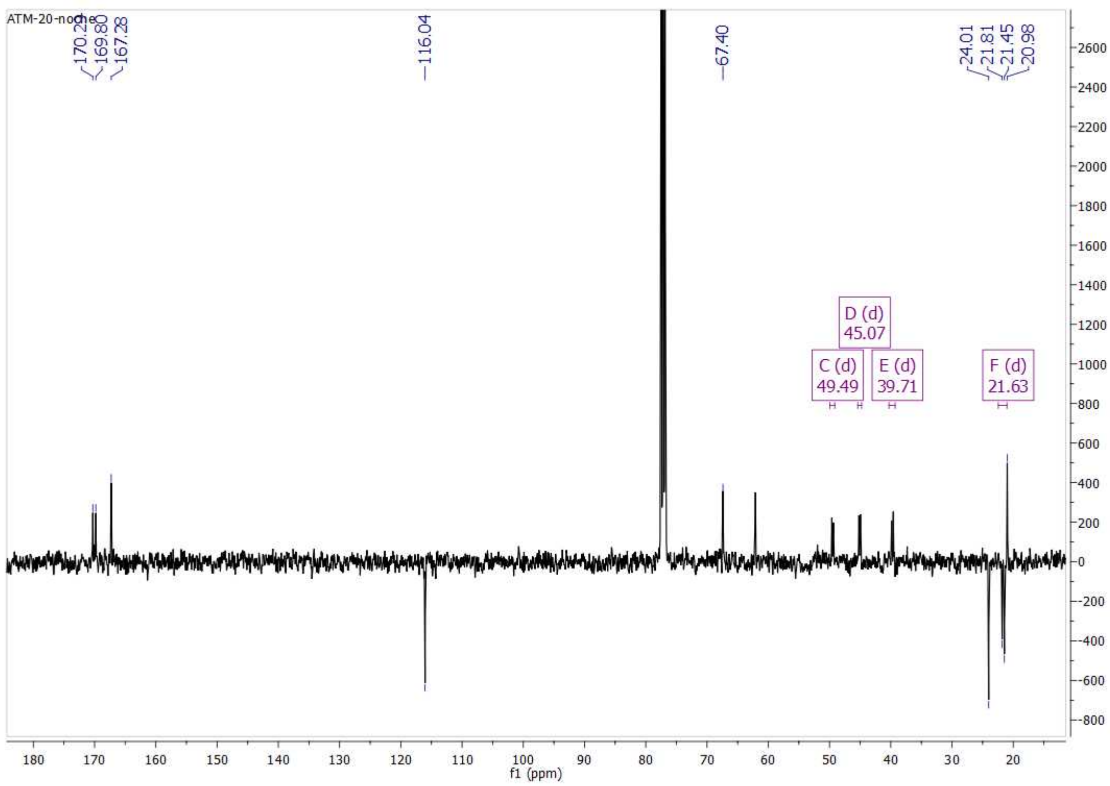

Figure S39. $^{13}C\{^{1}H\}$ NMR of compound **12**

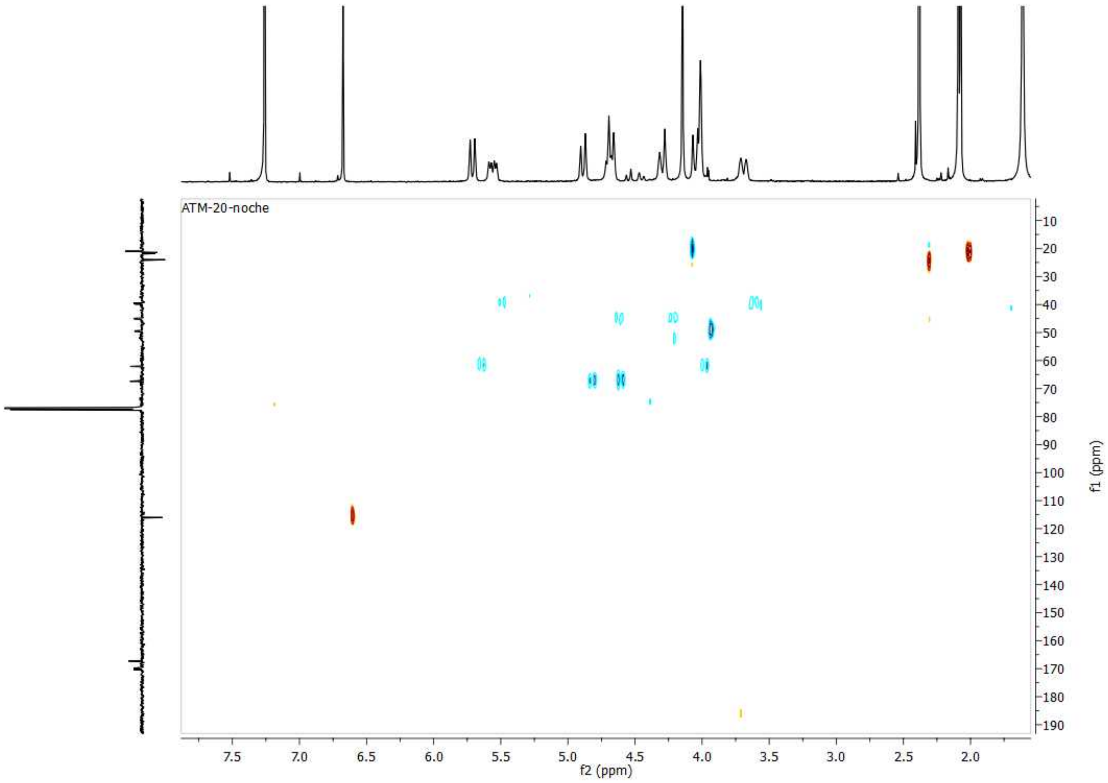

Figure S40. C,H-HSQC NMR of compound **12**

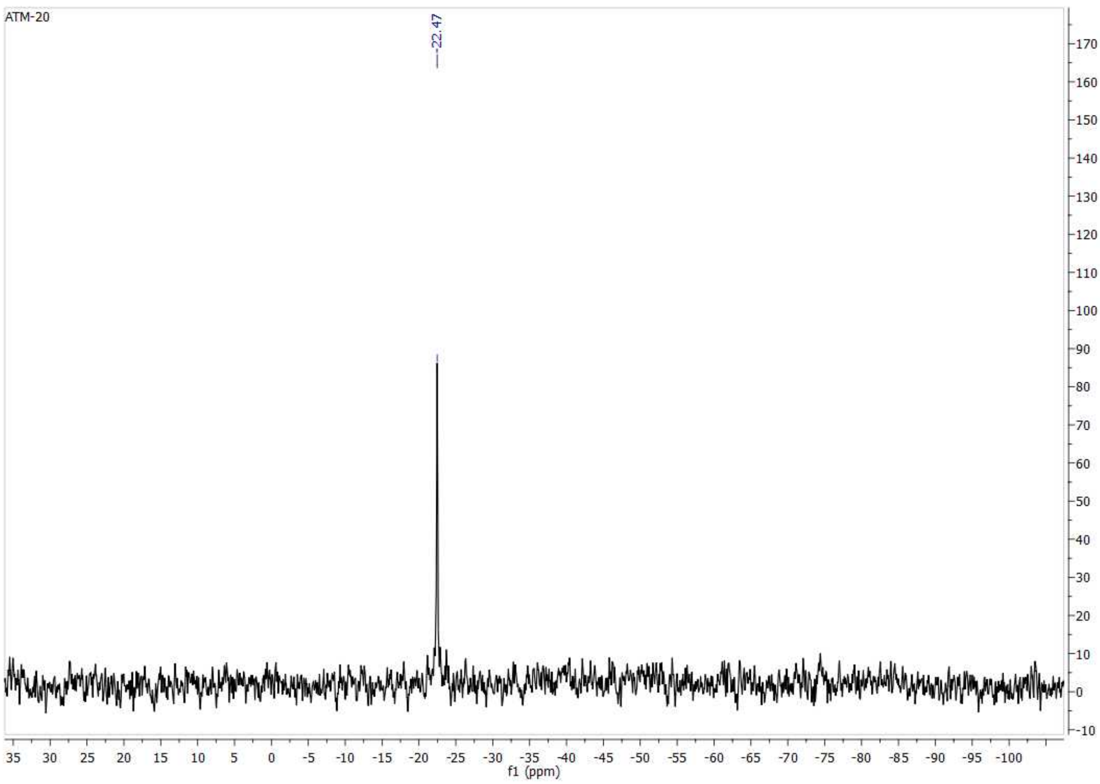

Figure S41. $^{31}P\{^{1}H\}$ NMR of compound **12**