Supplementary Information

A Convenient Synthesis, Reactions and Biological Activity of Some New 6*H*-Pyrazolo[4',3':4,5]thieno[3,2-*d*][1,2,3]triazine Compounds as Antibacterial, Anti-Fungal and Anti-Inflammatory Agents

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Spectral analyses

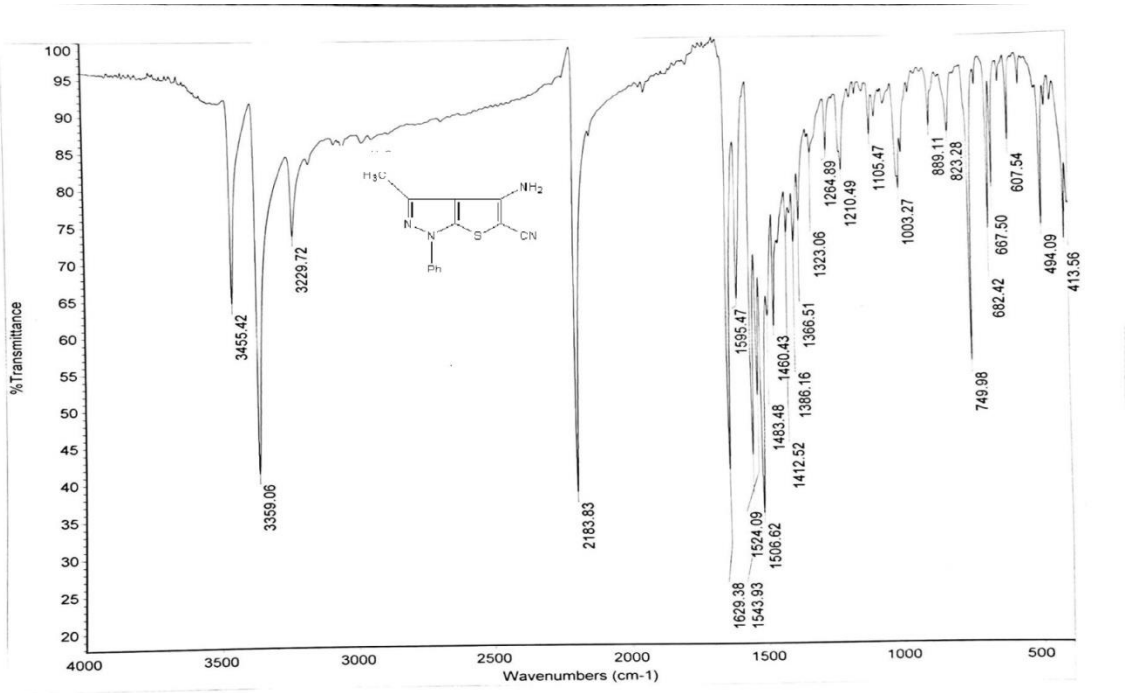

Figure S1. FTIR spectrum (KBr) of amino thienopyrazolecarbonitrile compound **5**.

*e-mail: remonch2003@yahoo.com, remon.asal2015@gmail.com

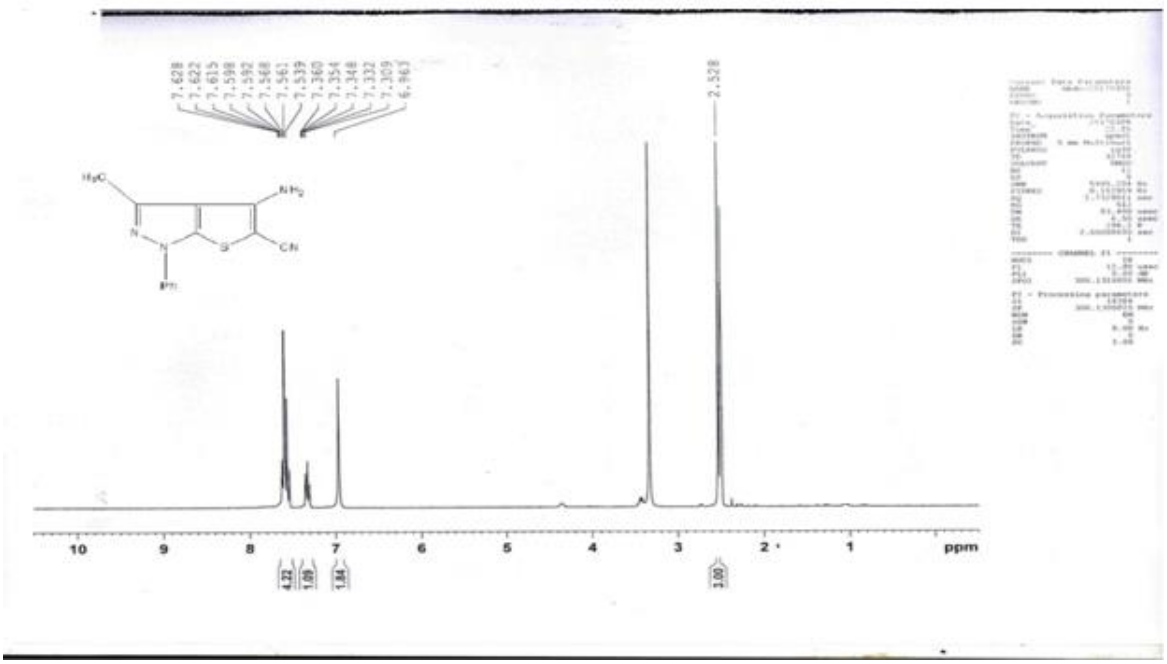

Figure S2. ^{1}H NMR spectrum (300 MHz, DMSO-d_6) of amino thienopyrazole carbonitrile compound **5**.

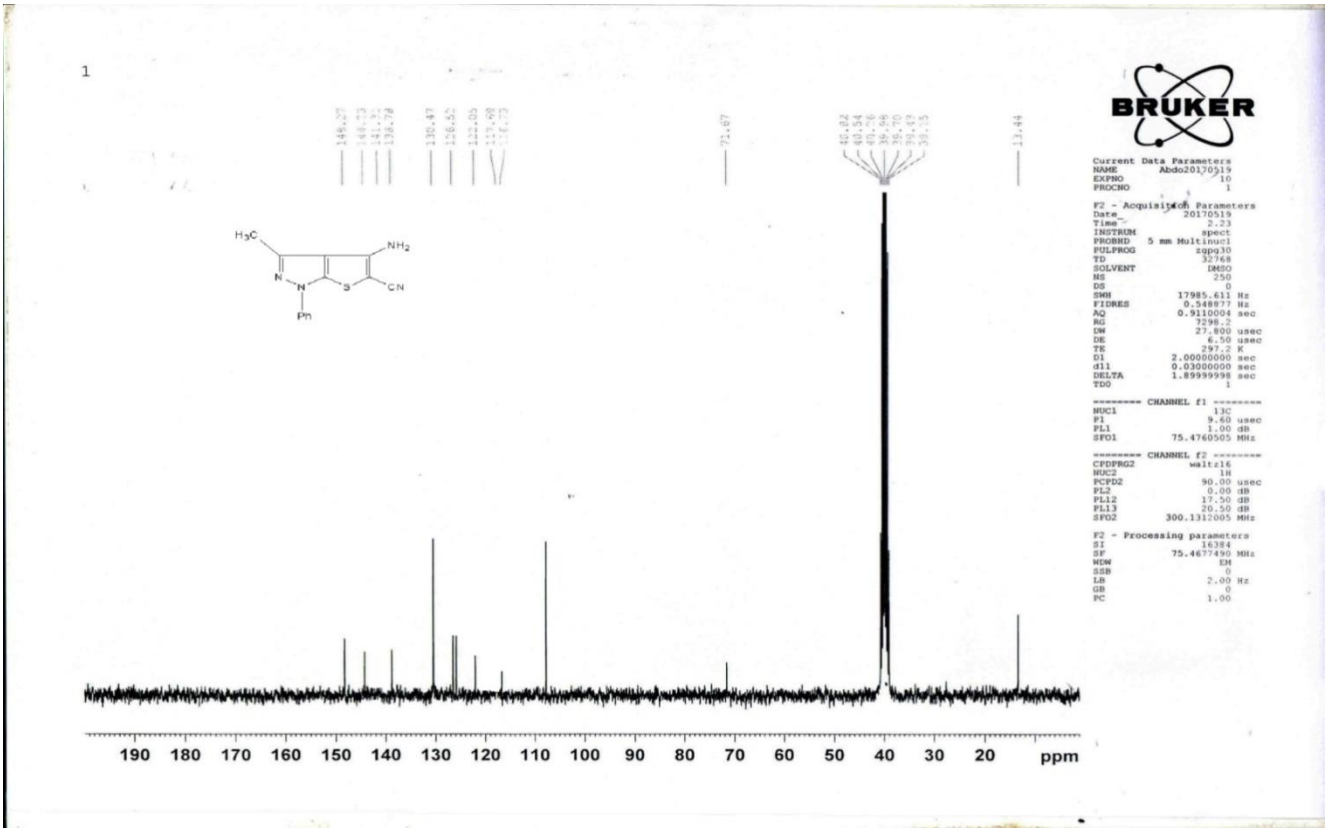

Figure S3. ^{13}C NMR spectrum (300 MHz, DMSO-d_6) of amino thienopyrazole carbonitrile compound **5**.

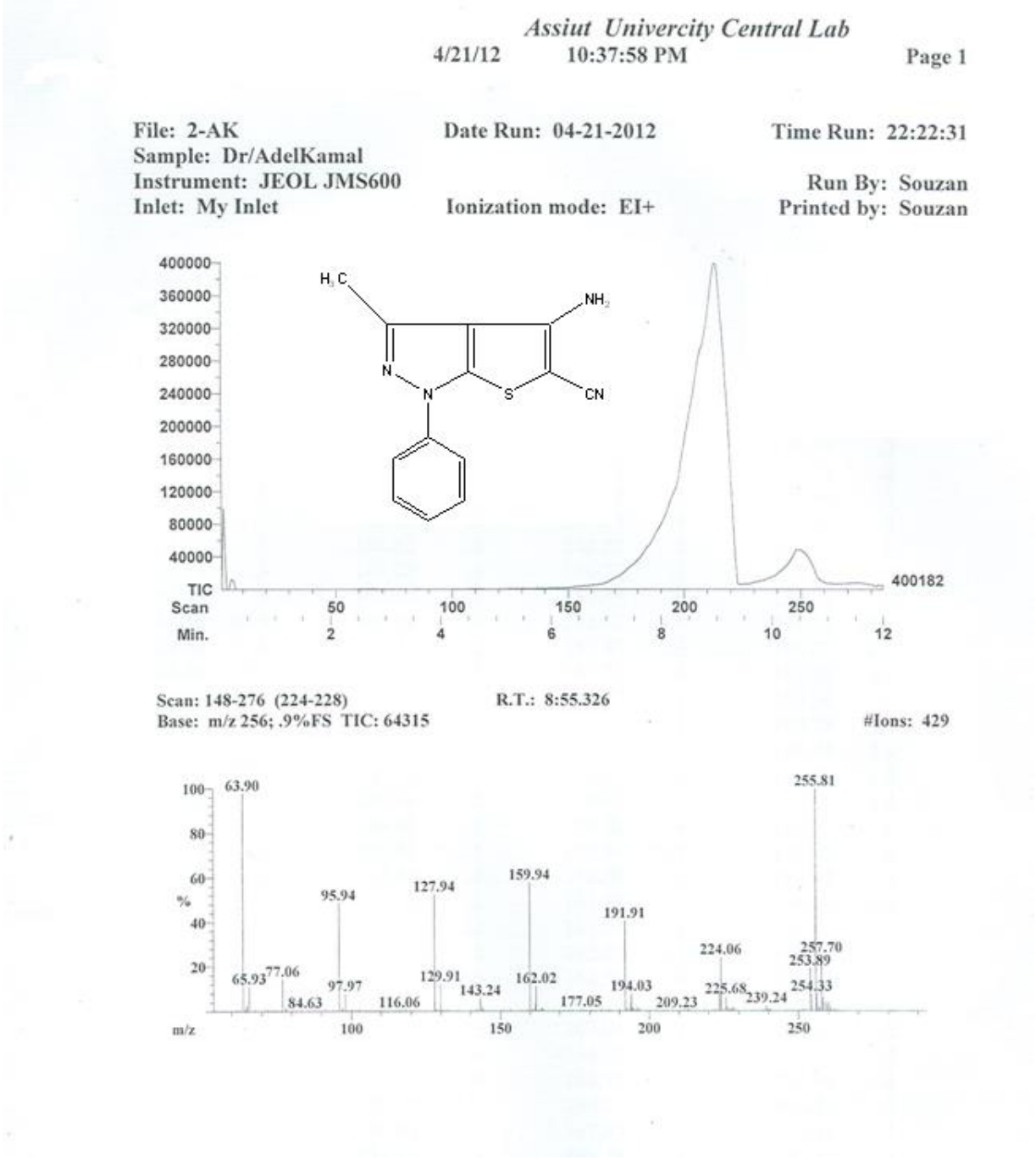

Figure S4. Mass spectrum of the o-amino carbonitrile compound **5**.

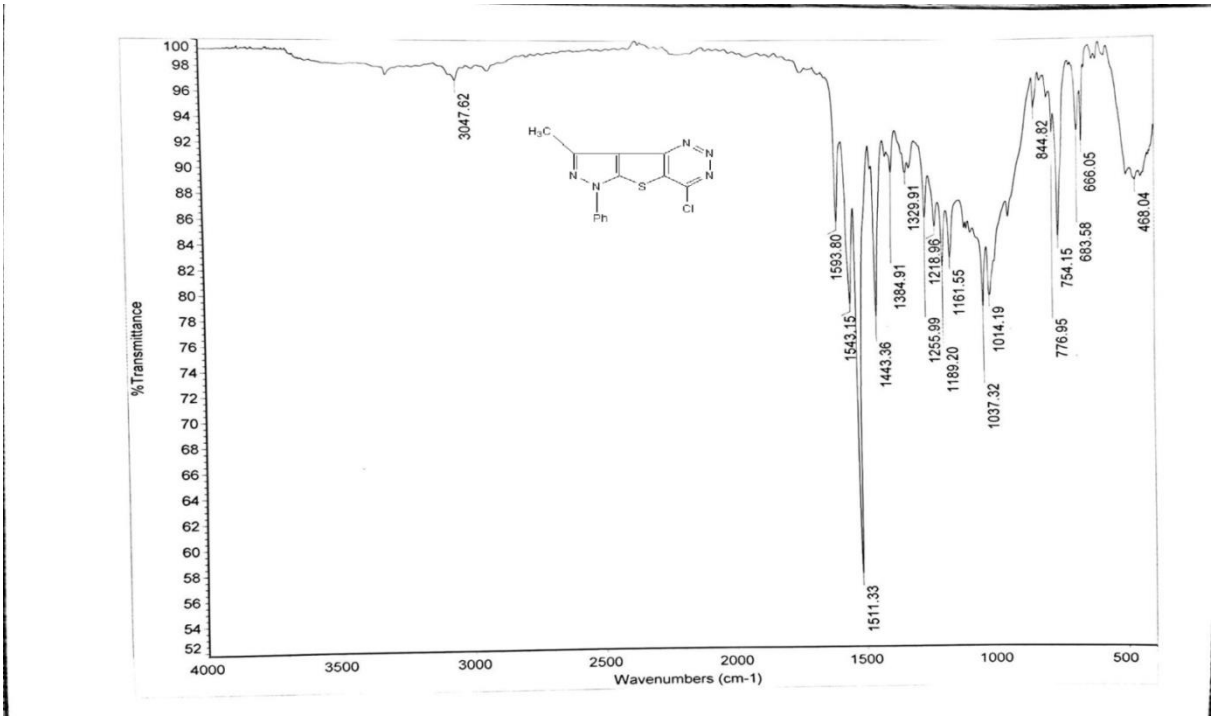

Figure S5. FTIR spectrum (KBr) of chlorotriazine compound compound **6**.

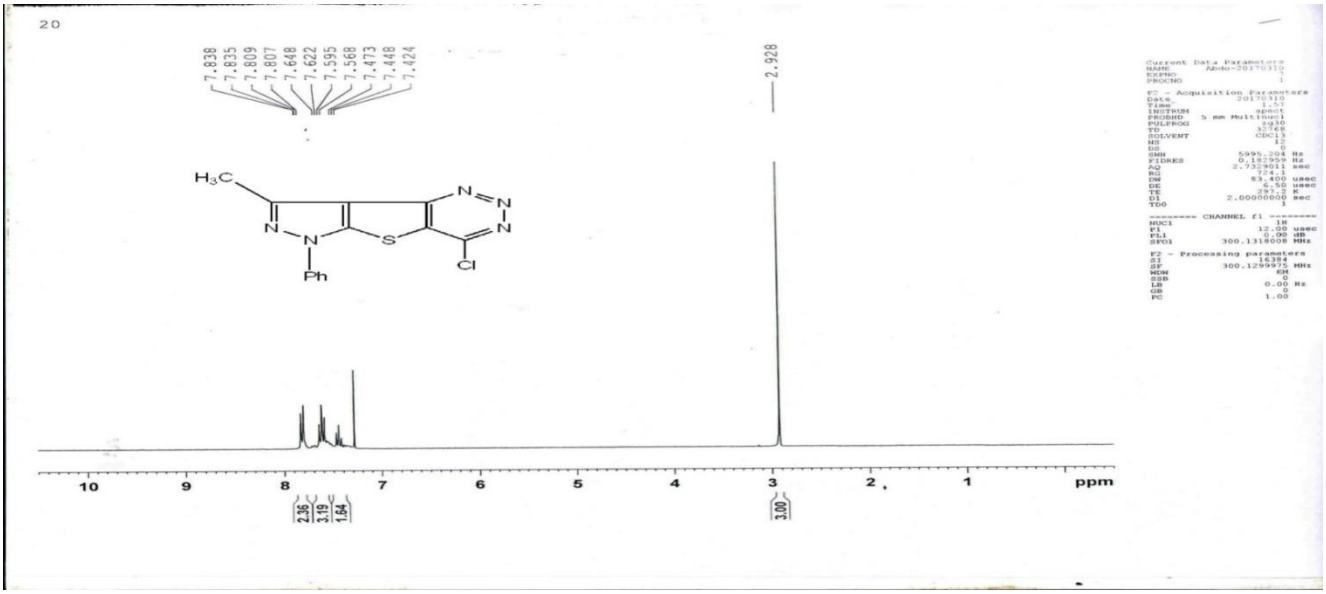

Figure S6. ^{1}H NMR spectrum (300 MHz, $CDCl_3$) of chlorotriazinecompound **6**.

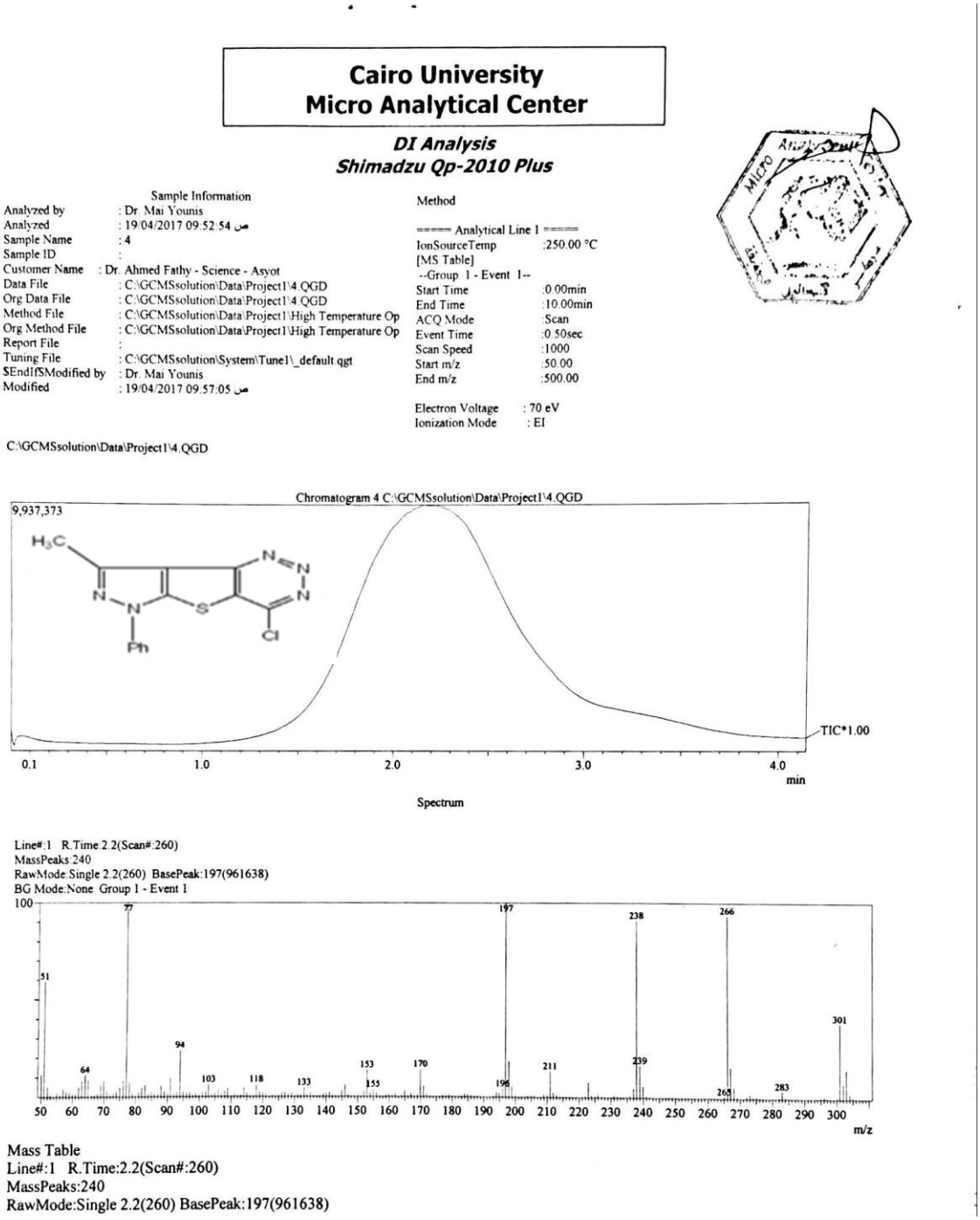

Figure S7. Mass spectrum of the chlorotriazine compound **6**.

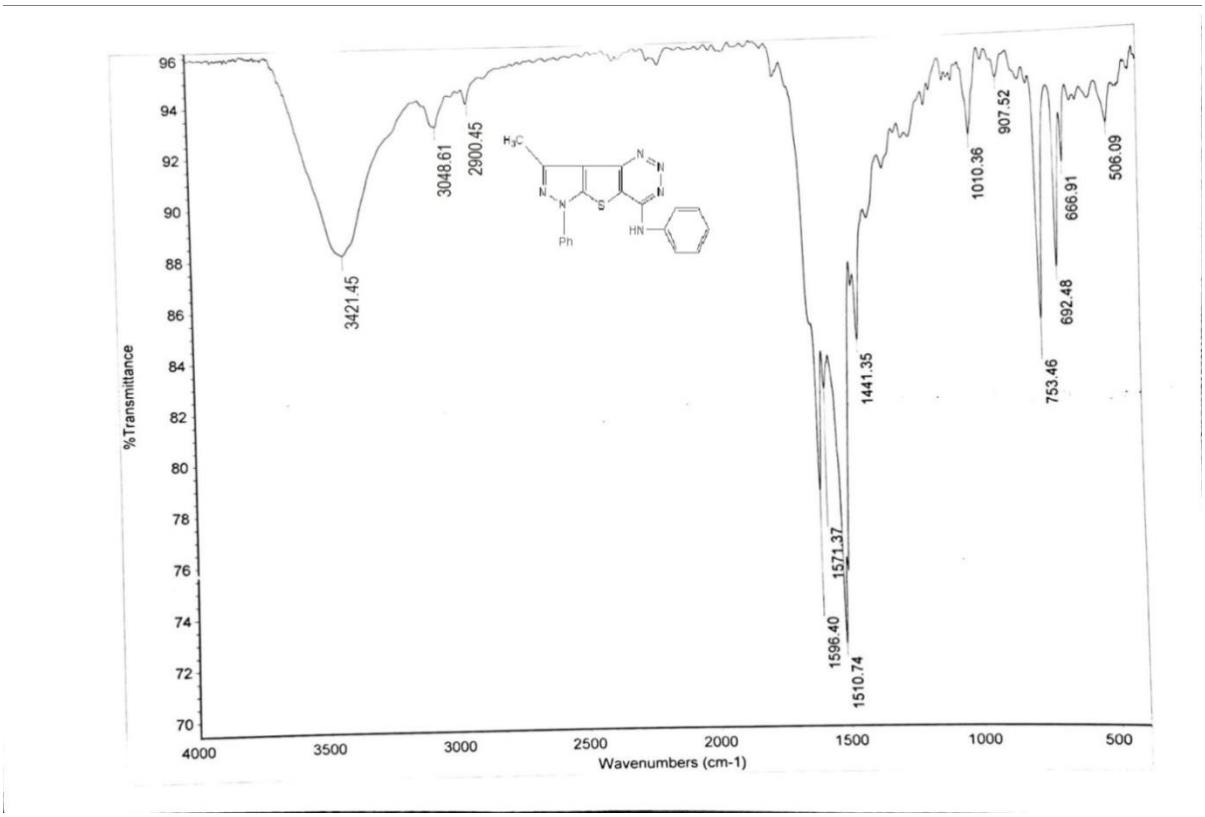

Figure S8. FTIR spectrum (KBr) of the phenylaminotriazine compound **7a**.

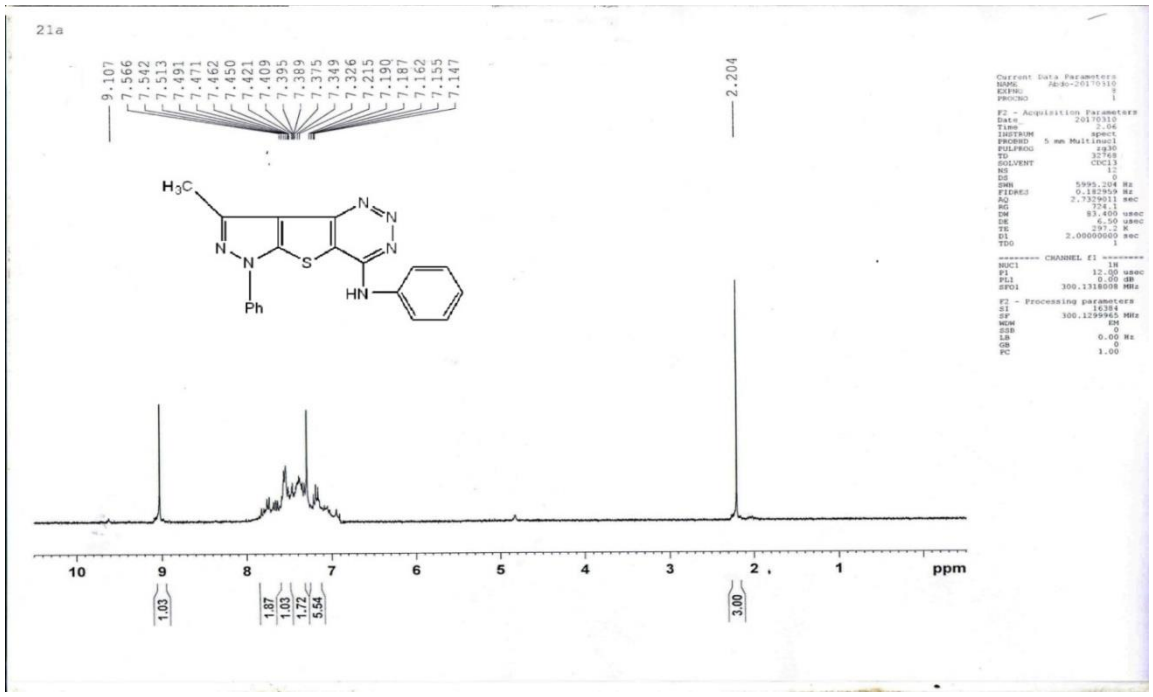

Figure S9. ^{1}H NMR spectrum (300 MHz, $CDCl_3$) of the phenylamino-triazine compound **7a**.

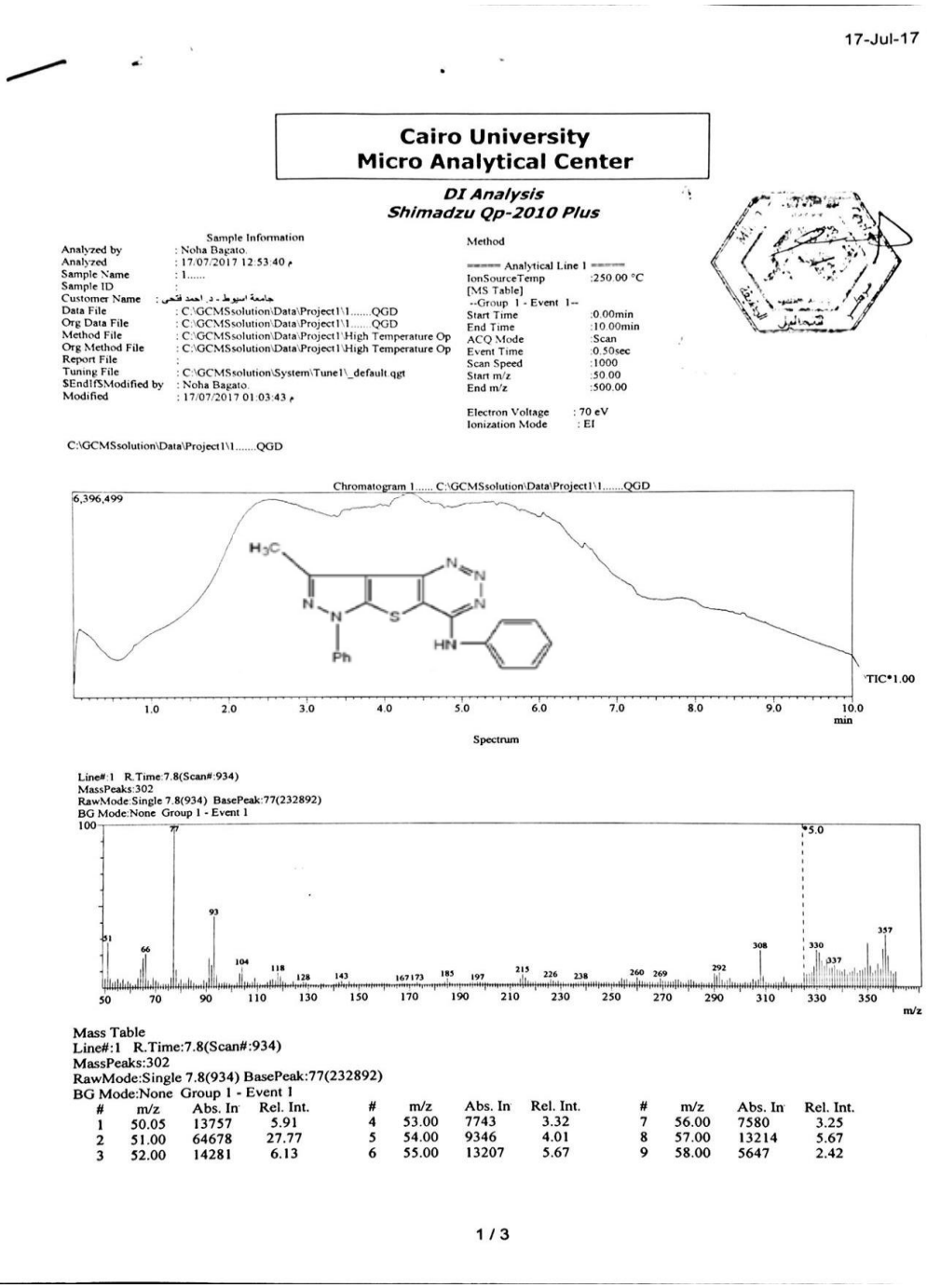

Figure S10. Mass spectrum of the phenylaminotriazine compound **7a**.

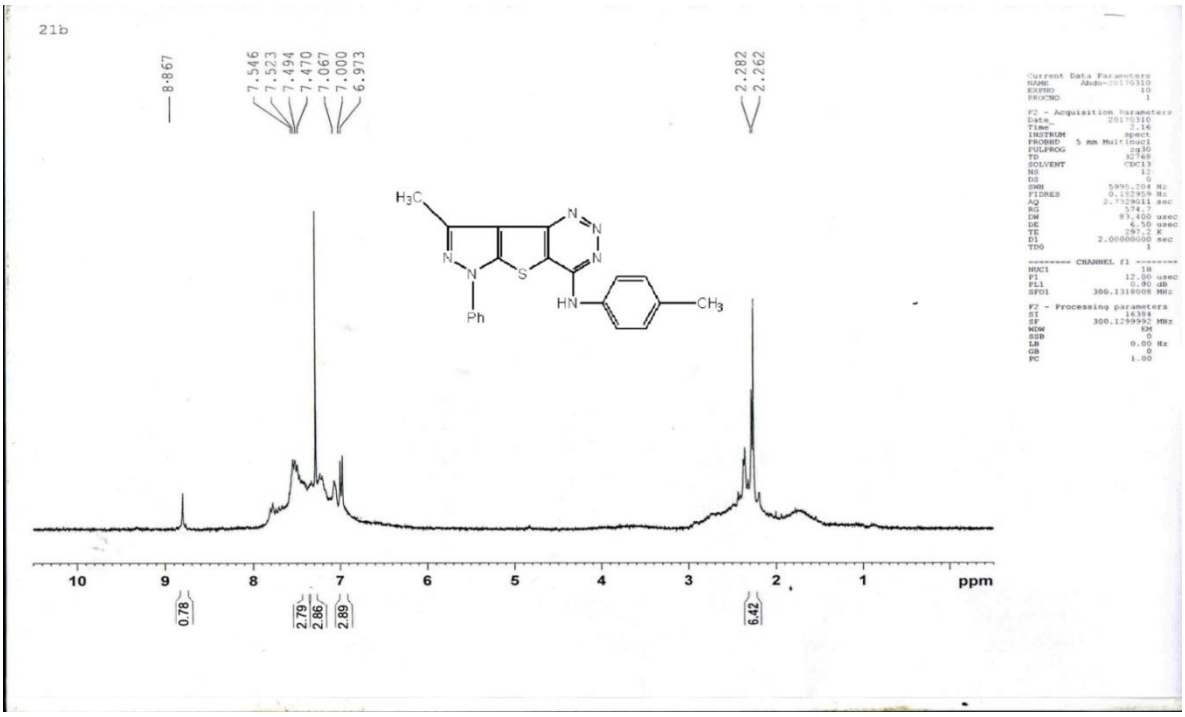

Figure S11. FTIR spectrum (KBr) of the *p*-tolylamino-triazine compound **7b**.

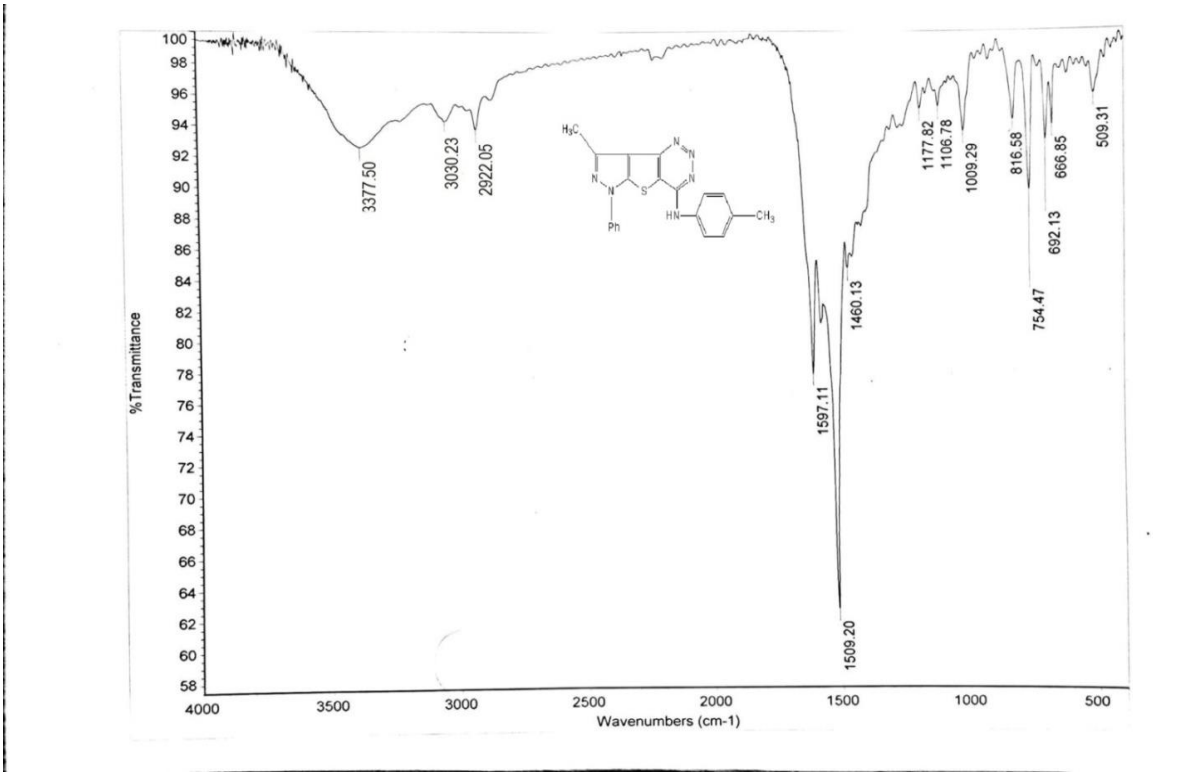

Figure S12. ^{1}H NMR spectrum (300 MHz, $CDCl_3$) of the *p*-tolylamino-triazine compound **7b**.

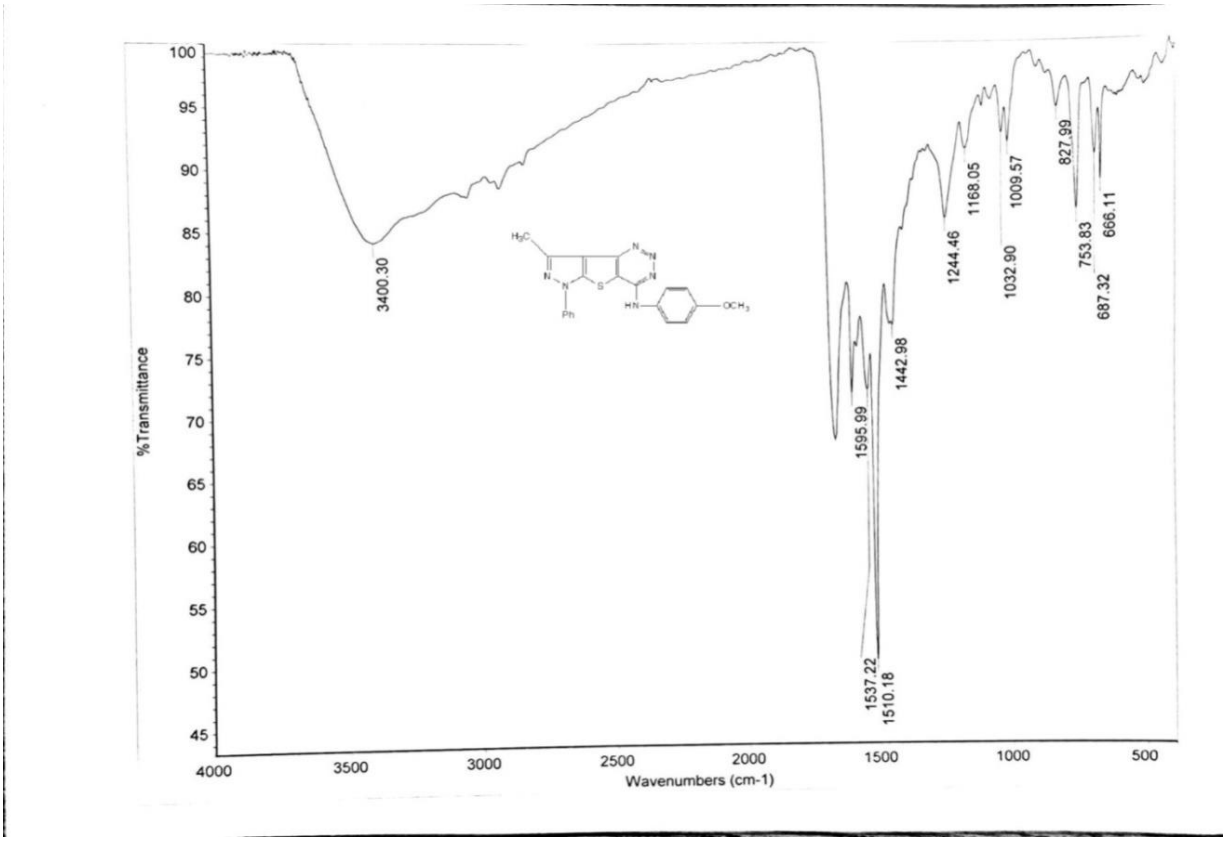

Figure S13. FTIR spectrum (KBr) of the *p*-anisylamino-triazine compound **7c**.

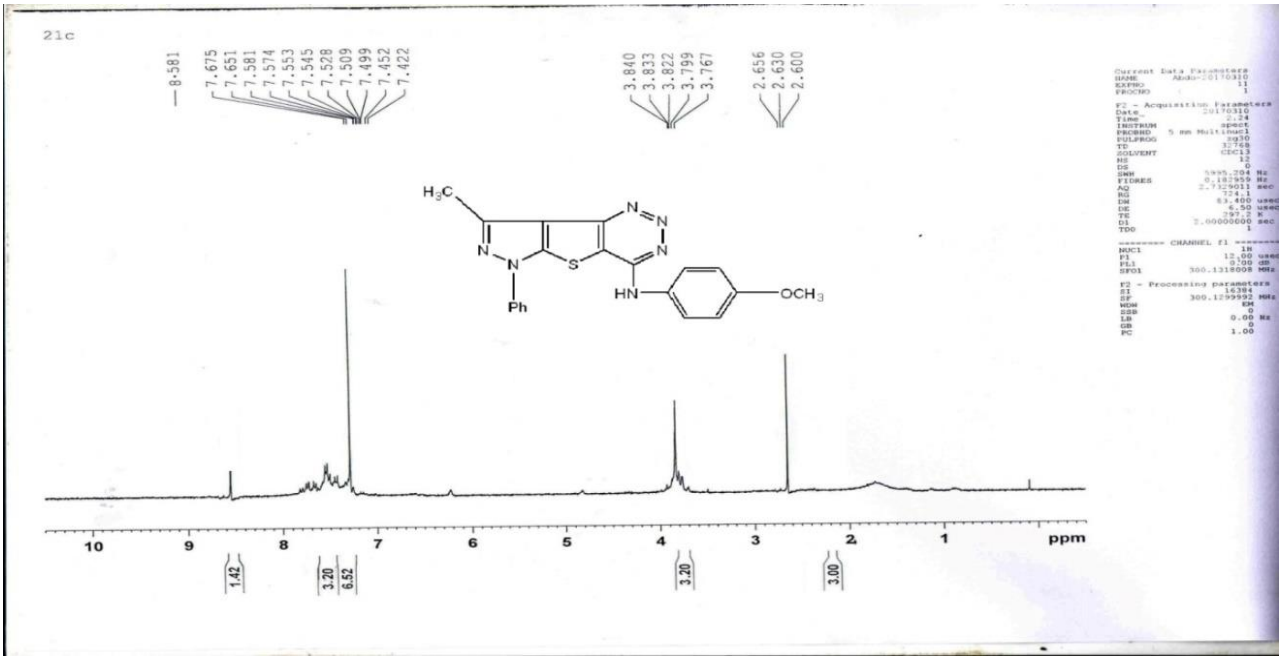

Figure S14. ^{1}H NMR spectrum (300 MHz, $CDCl_3$) of the *p*-anisylamino-triazine compound **7c**.

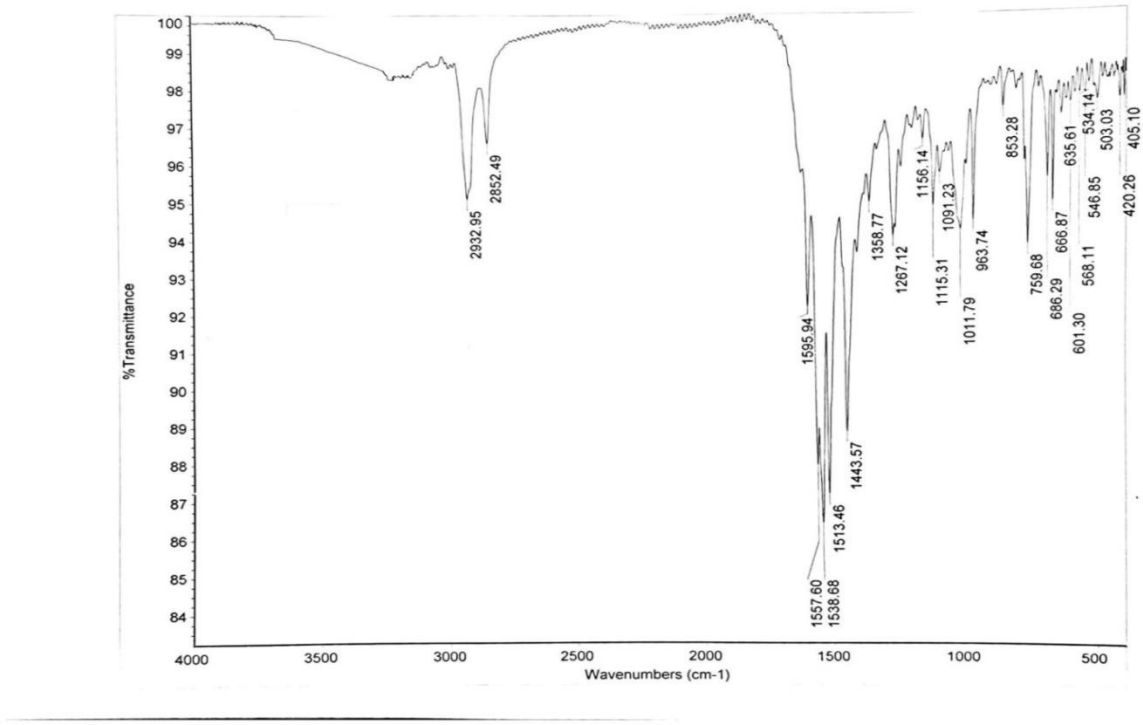

Figure S15. FTIR spectrum (KBr) of the piperidinylcompound **8a**.

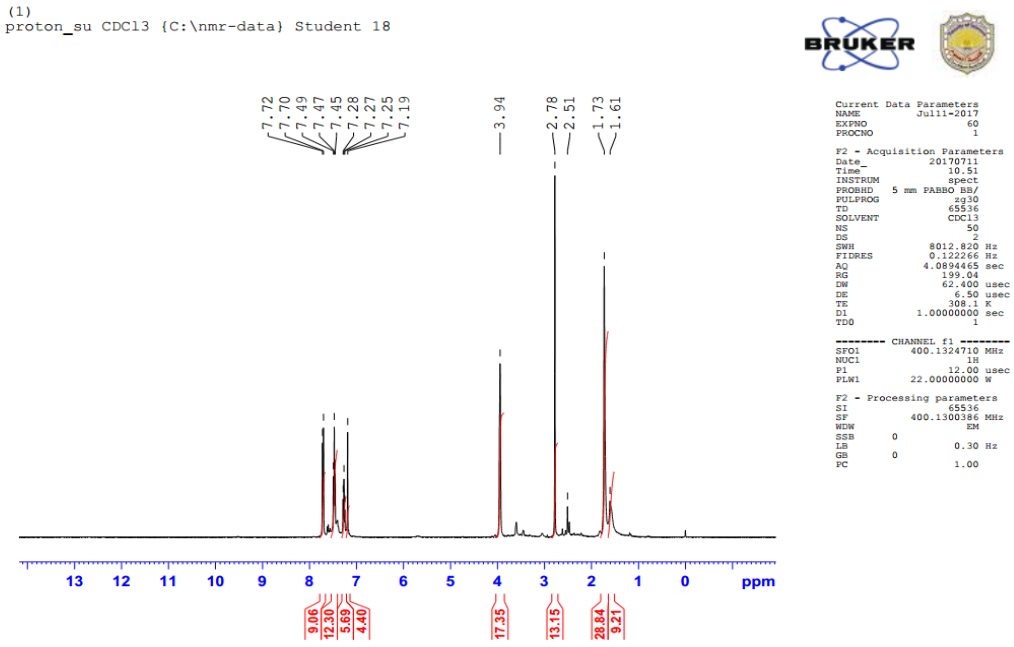

Figure S16. ^{1}H NMR spectrum (400 MHz, $CDCl_3$) of the piperidinyl compound **8a**.

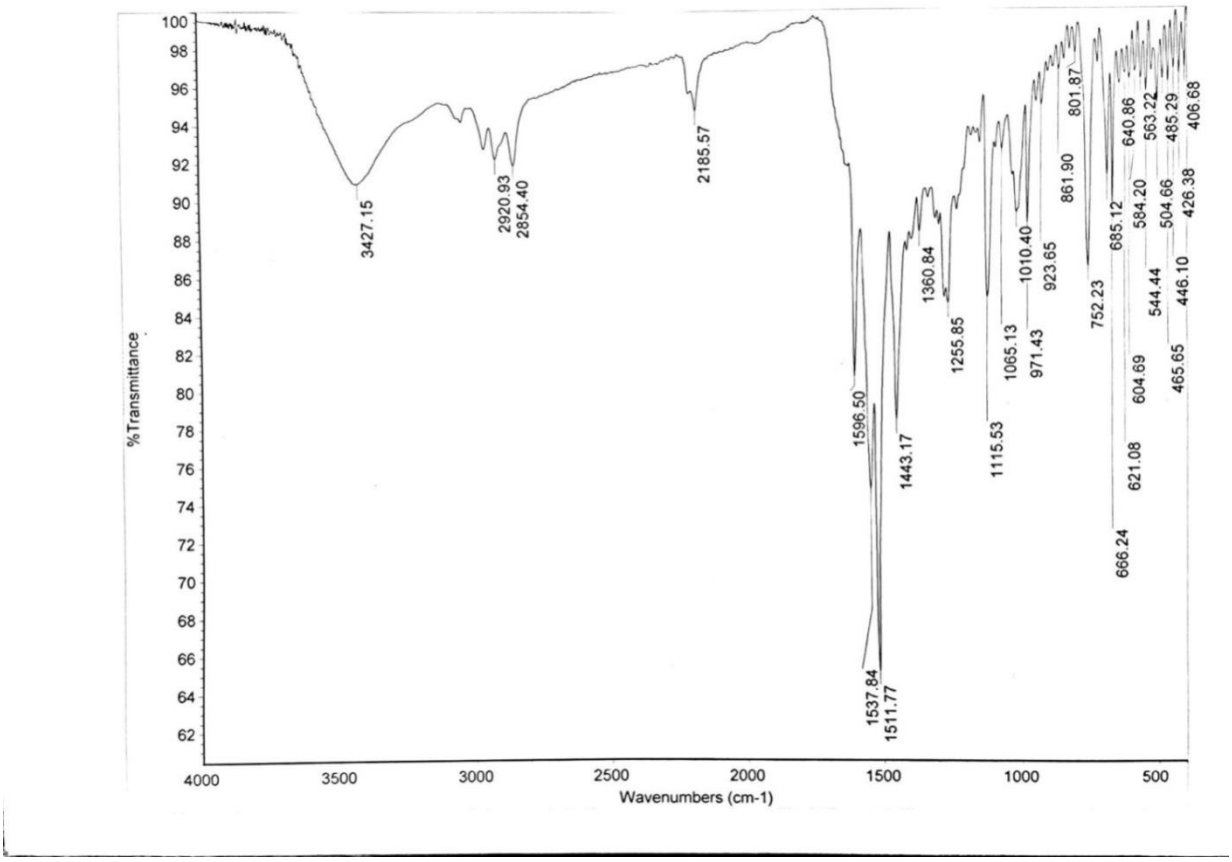

Figure S17. FTIR spectrum (KBr) of the morpholinyl compound **8b**.

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Shimadzu Qp-2010 Plus

Sample Information

Analyzed by	: Noha Bagato.
Analyzed	: 17/07/2017 12:30:29 م
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Sample ID	:
Customer Name	: جامعة اسيوط - د. احمد فتحى
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Method File	: C:\GCMSsolution\Data\Project1\High Temperature Op
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Report File	:
Tuning File	: C:\GCMSsolution\System\Tune1_default.qgt
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Modified	: 17/07/2017 12:38:12 م

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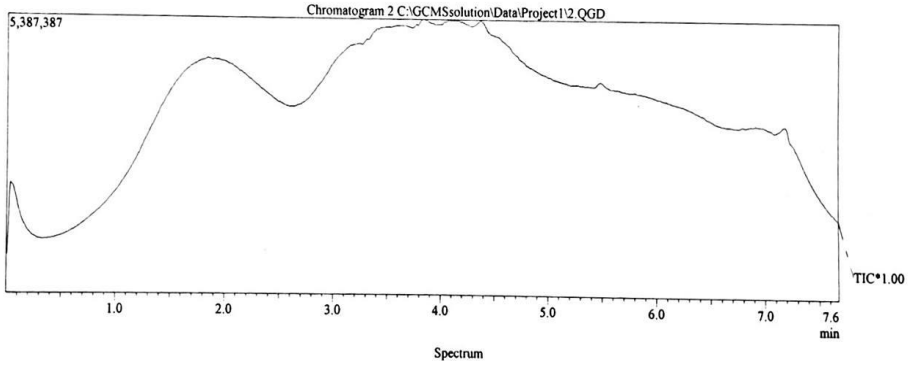

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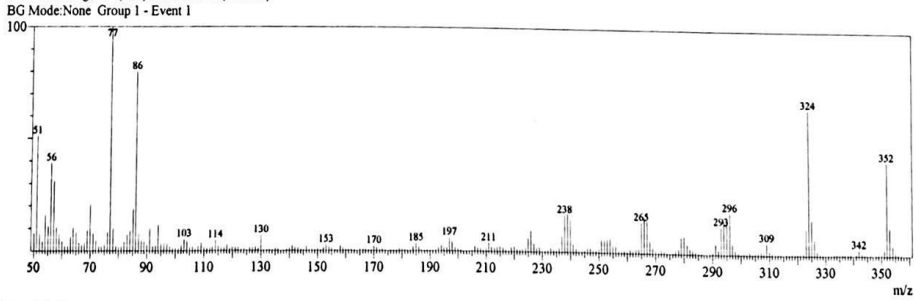

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2	50.95	202774	51.05	5	54.00	63633	16.02	8	57.00	123482	31.08
3	52.00	30740	7.74	6	55.05	43375	10.92	9	58.00	41745	10.51

1 / 3

Figure S18. Mass spectrum of the morpholinyl compound **8b**.

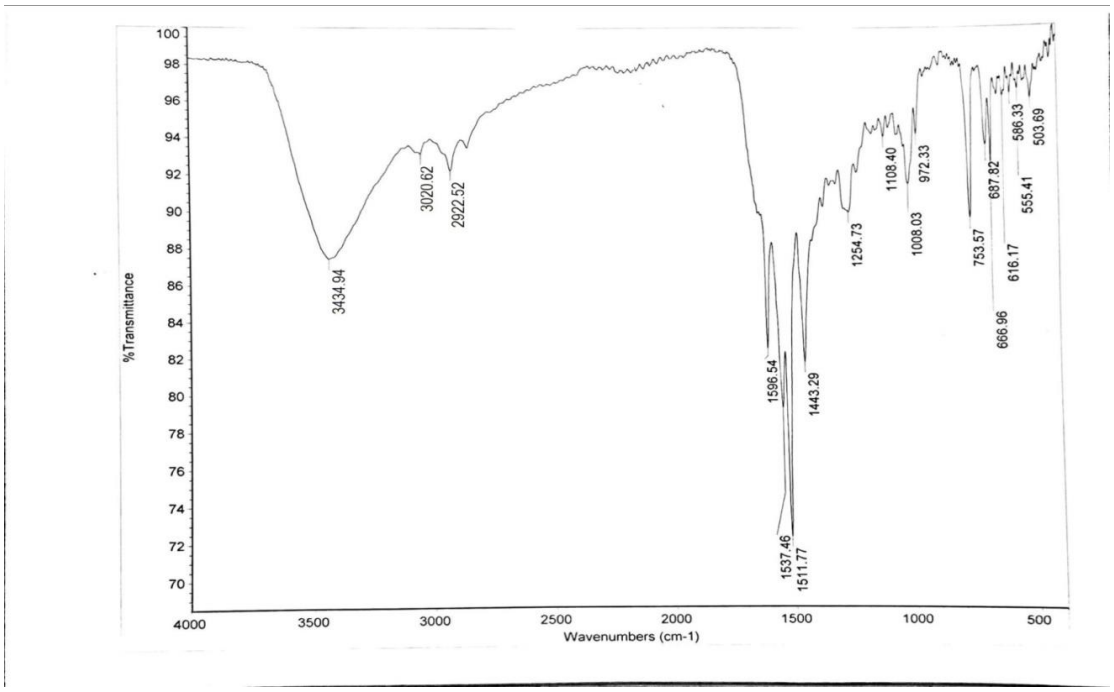

Figure S19. FTIR spectrum (KBr) of the piperazinyl compound **8c**.

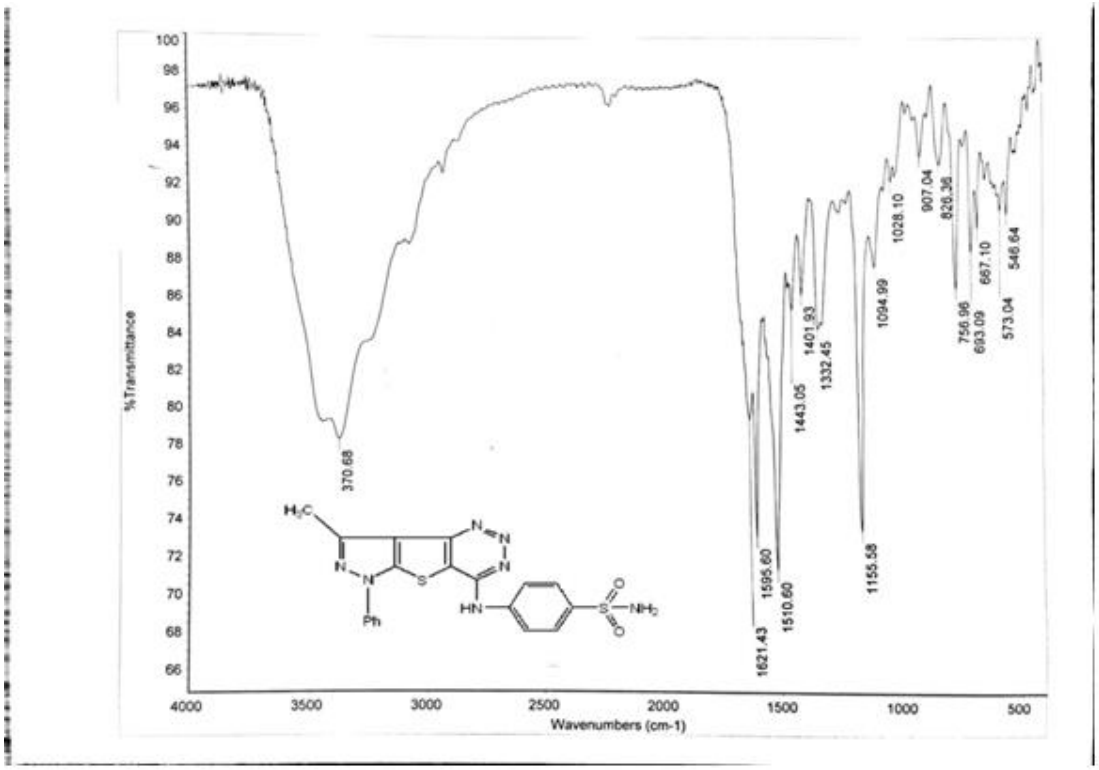

Figure S20. FTIR spectrum (KBr) of thetriazinylaminobenzene sulfonamide derivative **9a**.

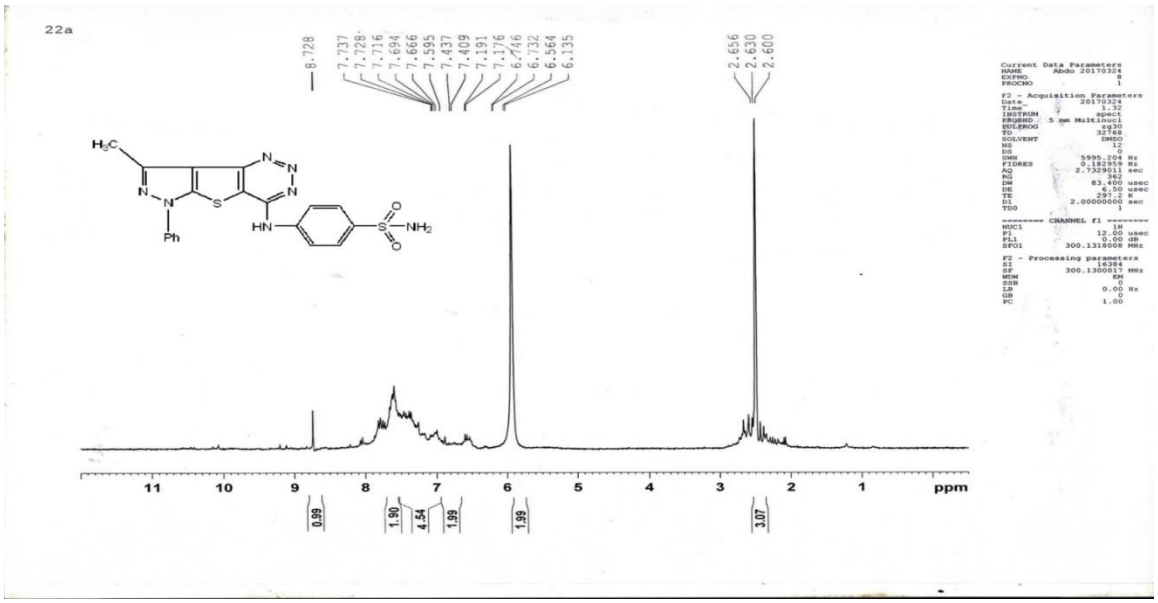

Figure S21. ^{1}H NMR spectrum (300 MHz, $CDCl_3$) of the triazinylaminobenzene sulfonamide **9a**.

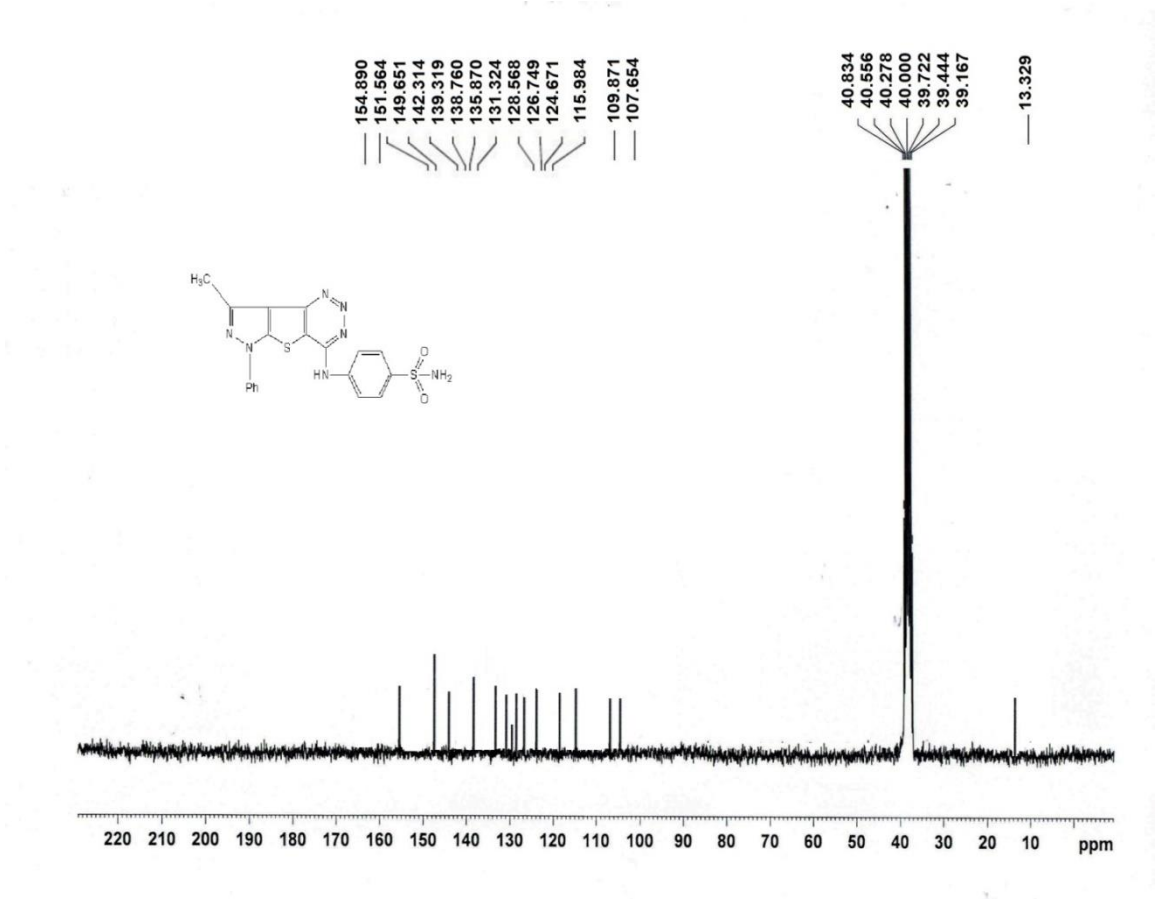

Figure S22. ^{13}C NMR spectrum (300 MHz, DMSO-d_6) of triazinylaminobenzene sulfonamide compound **9a**.

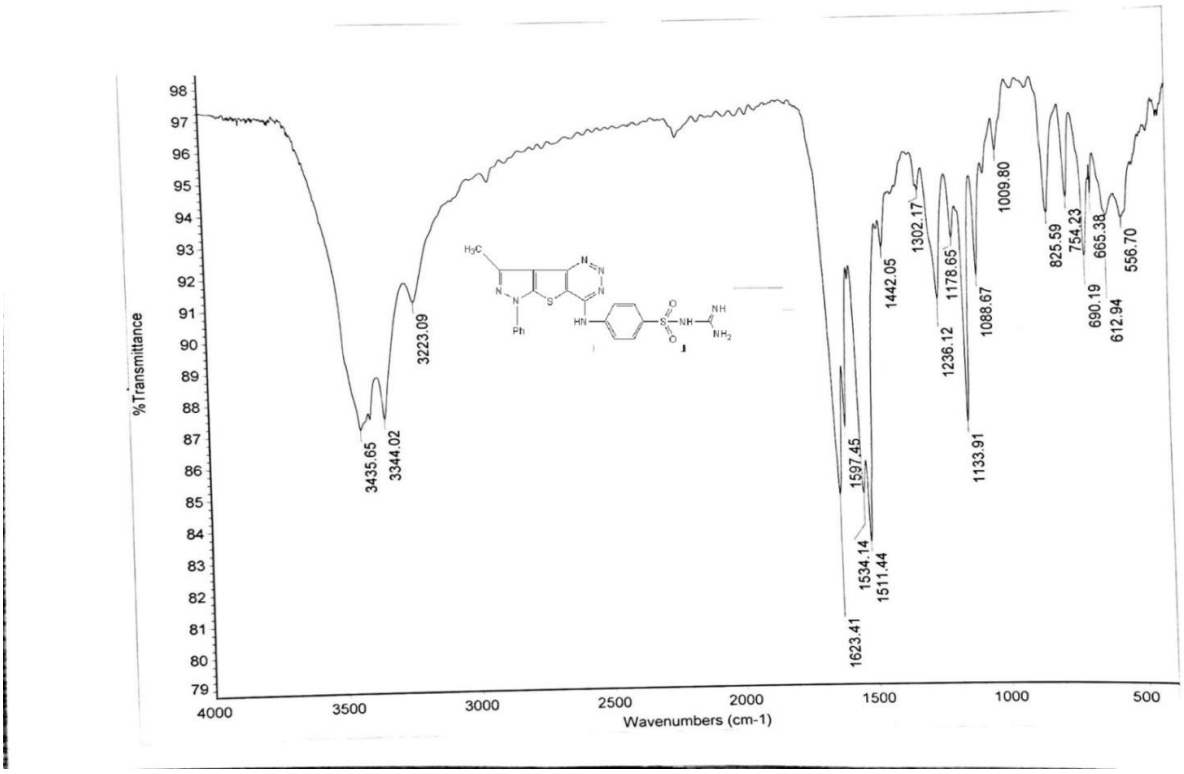

Figure S23. FTIR spectrum (KBr) of the *N*-carbamimidoyl benzene sulfonamide **9b**.

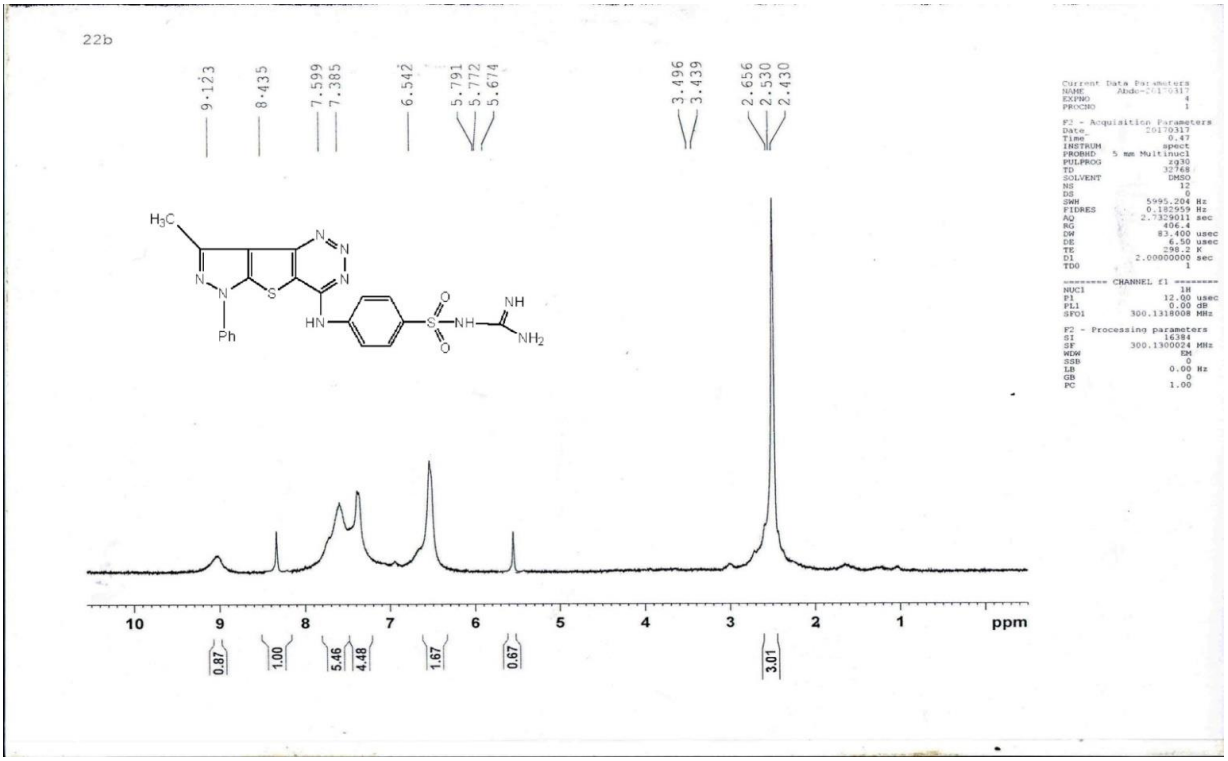

Figure S24. ^{1}H NMR spectrum (300 MHz, DMSO-d_6) of the *N*-carbamimidoyl benzene sulfonamide **9b**.

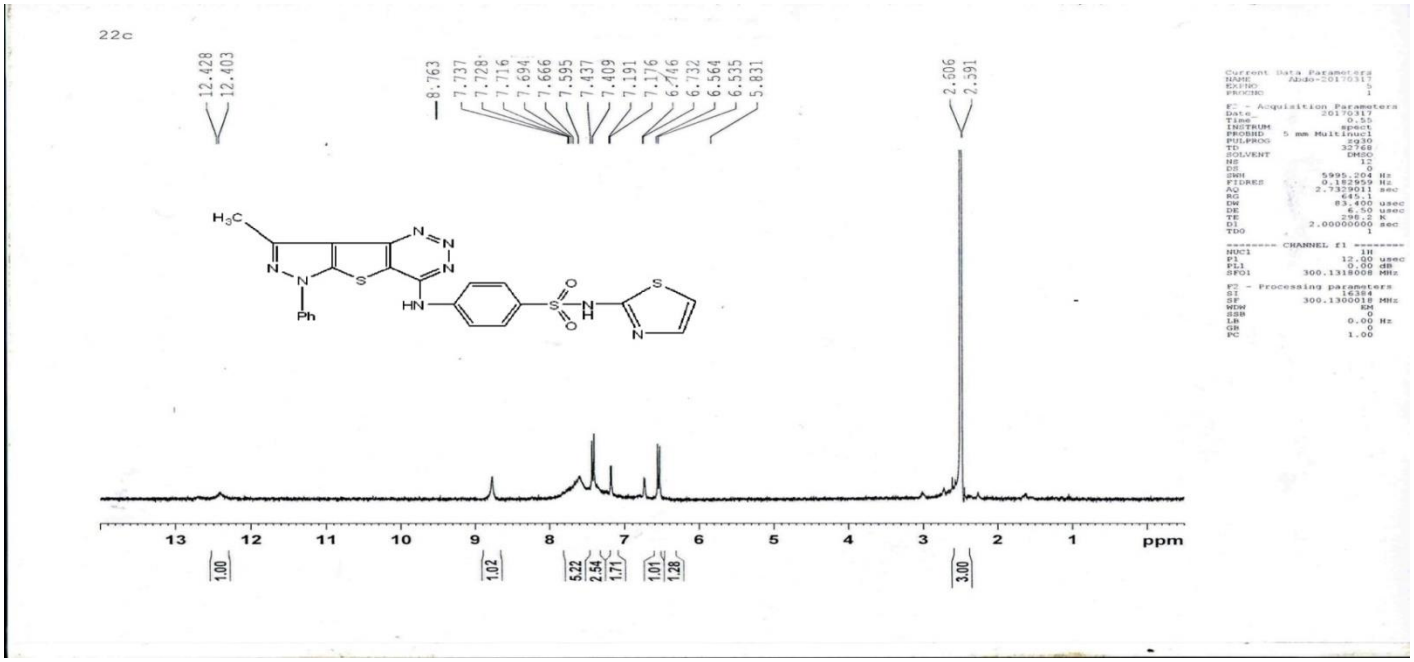

Figure S25. FTIR spectrum (KBr) of the *N*-thiazolyl benzene sulfonamide **9c**.

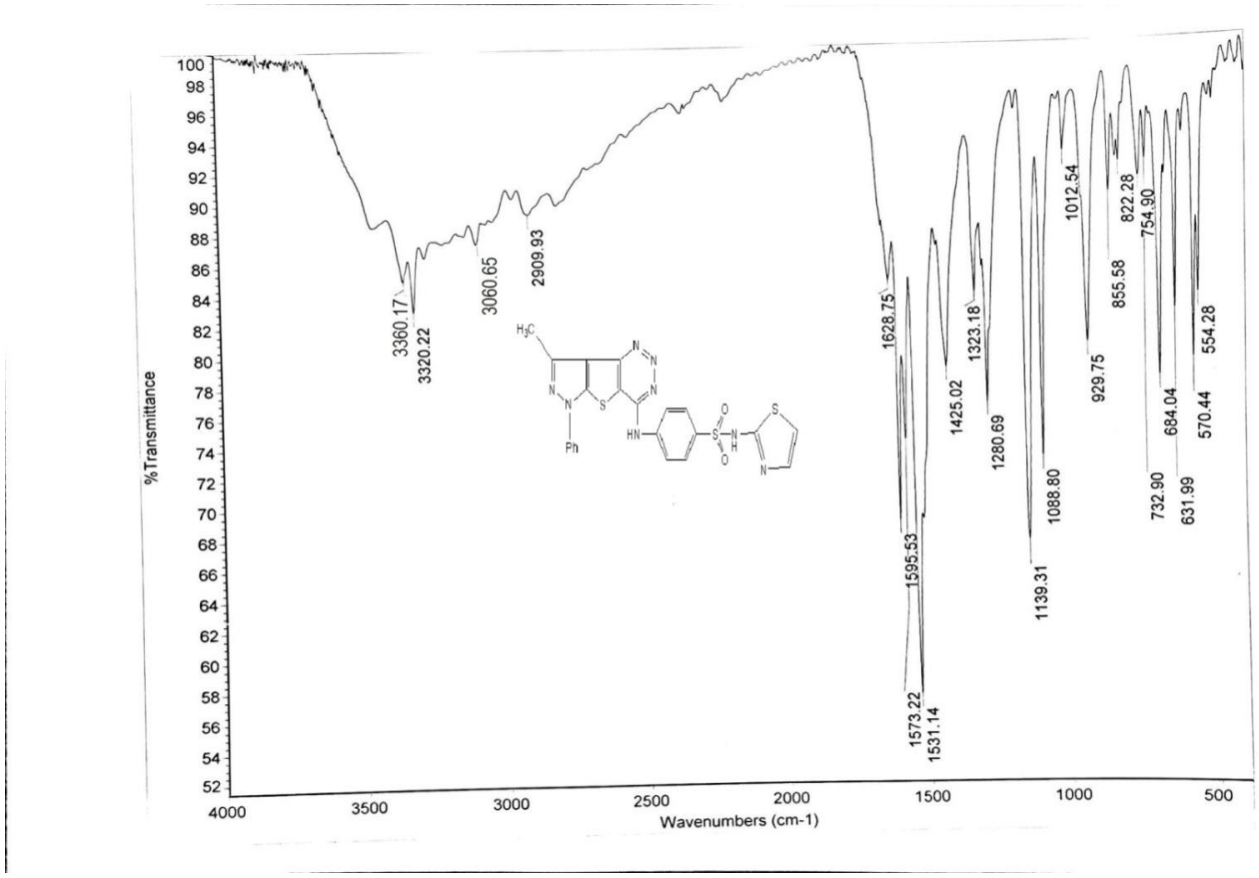

Figure S26. ^{1}H NMR spectrum (300 MHz, DMSO-d_6) of the *N*-thiazolyl benzene sulfonamide **9c**.

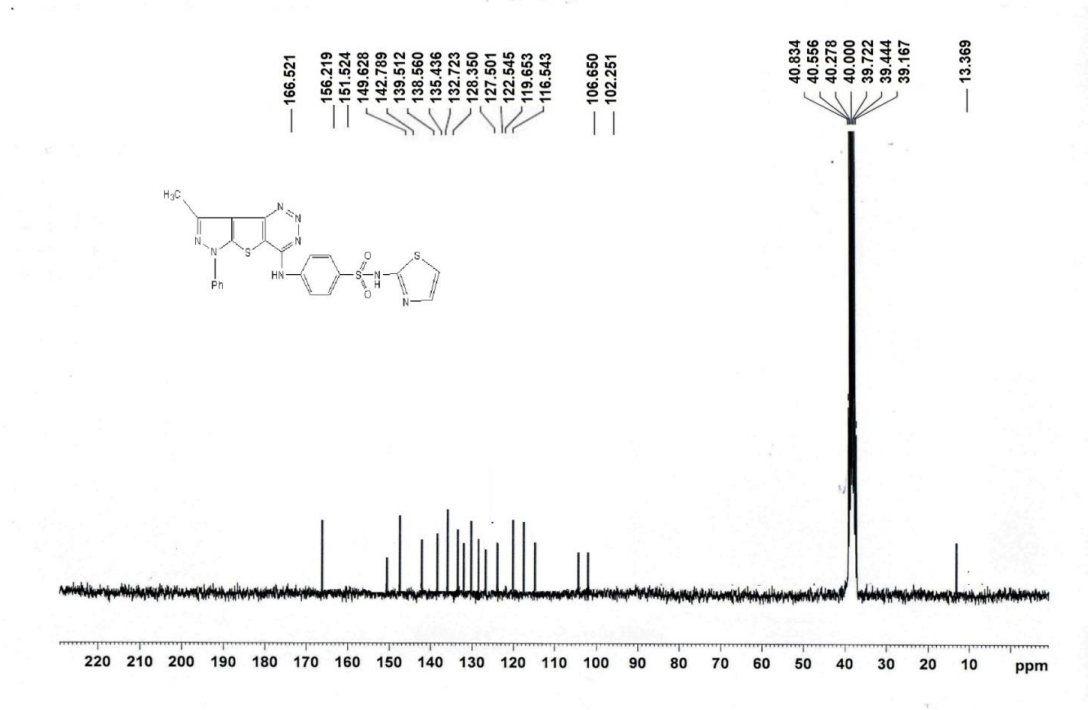

Figure S27. ^{13}C NMR spectrum (300 MHz, DMSO-d_6) spectrum the *N*-thiazolyl benzene sulfonamide **9c**.

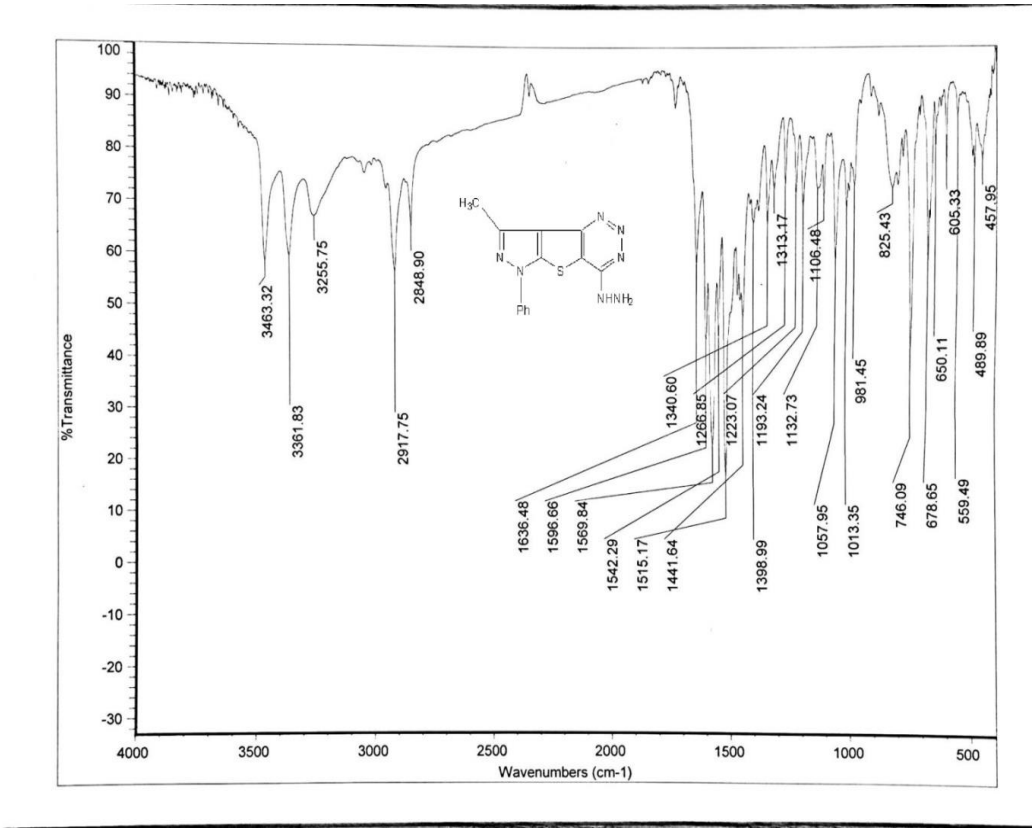

Figure S28. FTIR spectrum (KBr) of the hydrazinotriazine compound **10**.

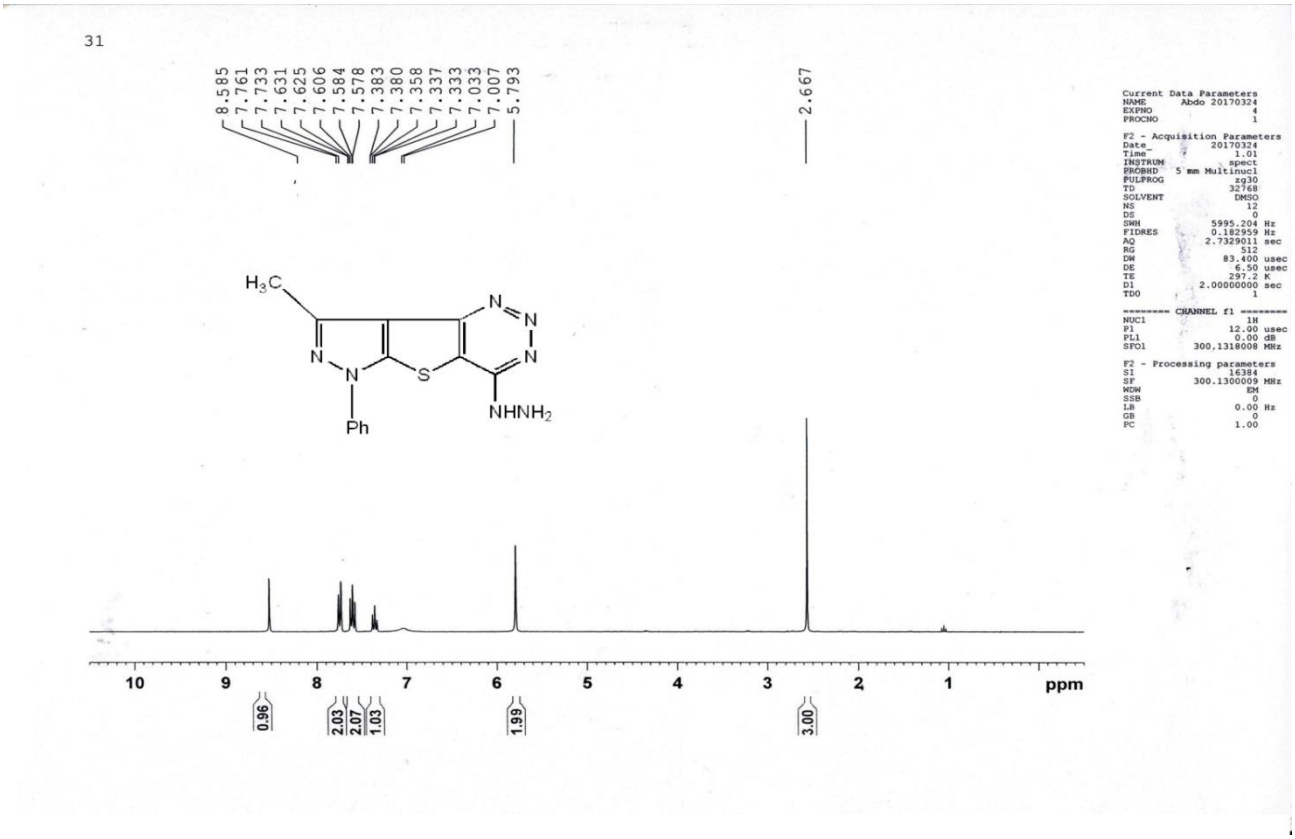

Figure S29. ^{1}H NMR spectrum (300 MHz, DMSO-d_6) of the hydrazinotriazine compound **10**.

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DI Analysis
Shimadzu Qp-2010 Plus

Sample Information

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Analyzed	: 18/07/2017 03:41:44 م
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Sample ID	:
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Report File	:
Tuning File	: C:\GCMSsolution\System\Tune1_default.qgt
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Modified	: 18/07/2017 03:48:57 م

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Electron Voltage : 70 eV
Ionization Mode : EI

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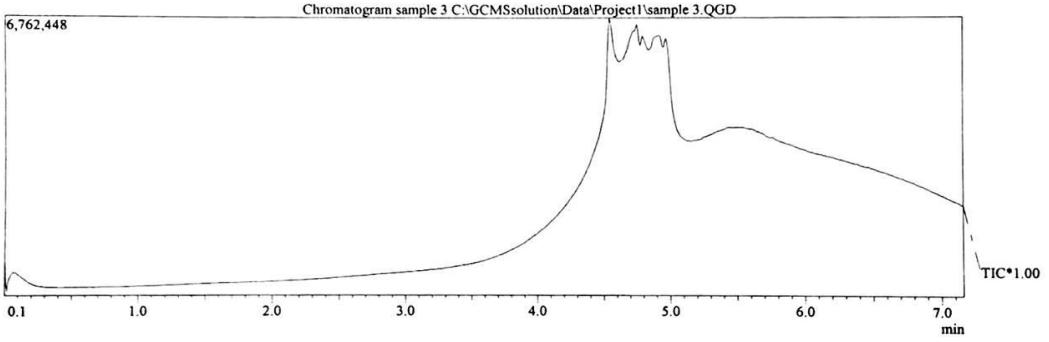
Chromatogram sample 3 C:\GCMSsolution\Data\Project1\sample 3.QGD



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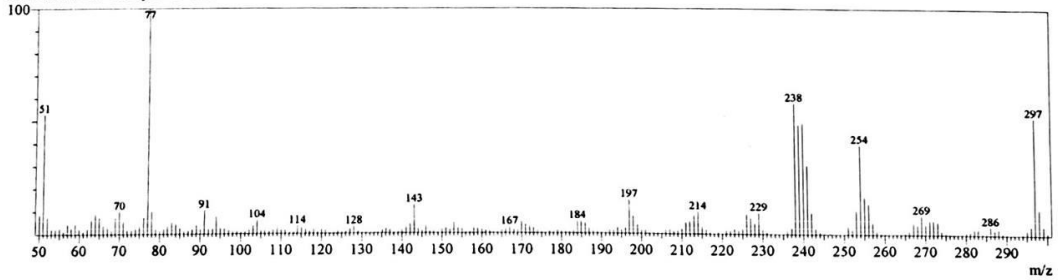

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2	50.95	301491	53.01	5	54.00	13444	2.36	8	57.00	25222	4.43
3	51.95	42383	7.45	6	55.00	17108	3.01	9	57.95	15692	2.76

1 / 3

Figure S30. Mass spectrum of the hydrazinotriazine compound **10**.

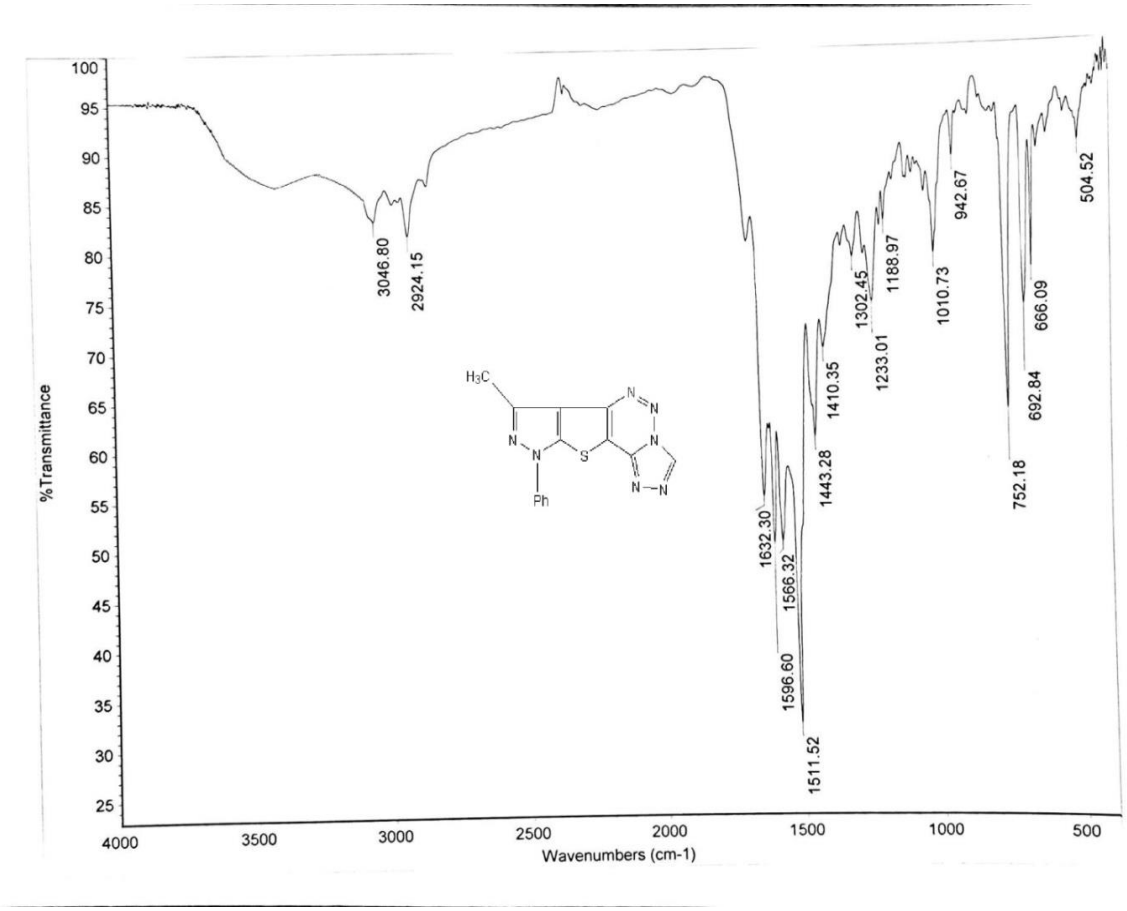

Figure S31. FTIR spectrum (KBr) of the triazolotriazine compound **11**.

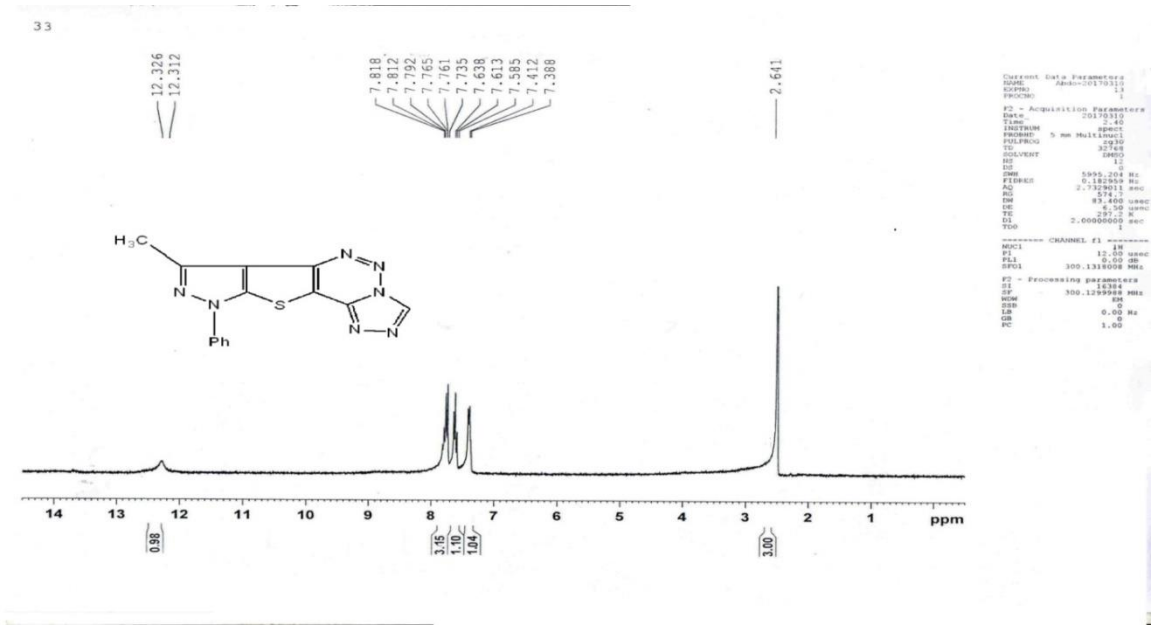

Figure S32. [1]H NMR spectrum (300 MHz, DMSO-d_6) of the triazolotriazine compound **11**.

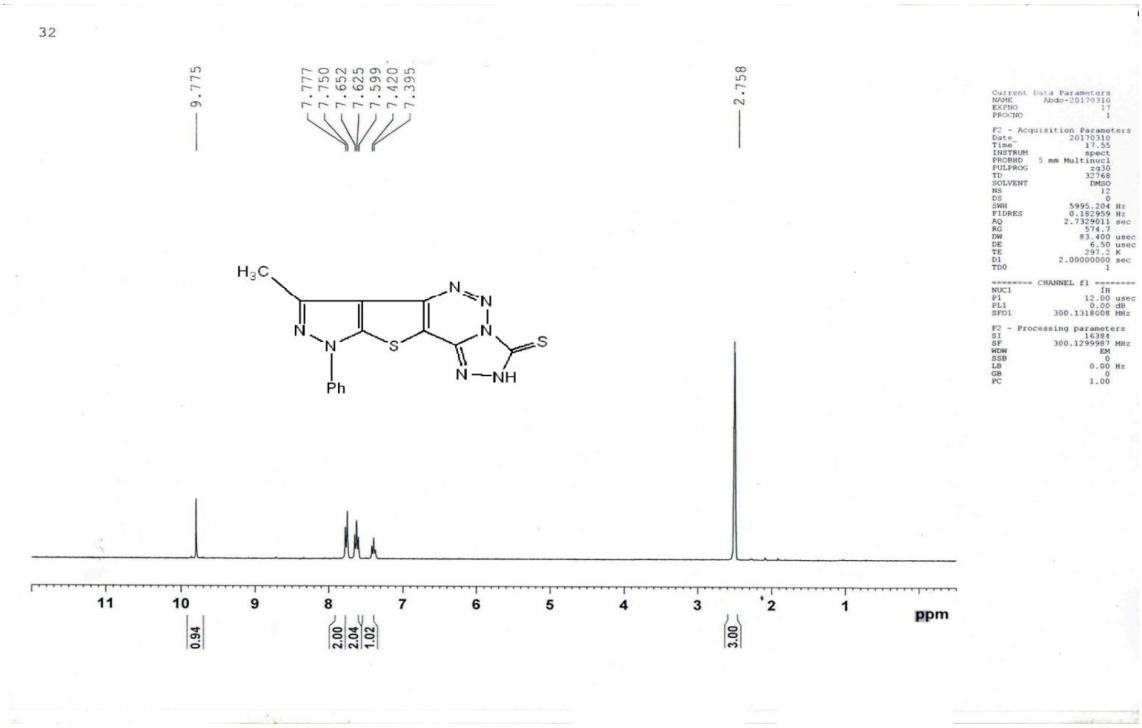

Figure S33. ^{1}H NMR spectrum (300 MHz, DMSO-d_6) of the triazolotriazinethione compound **12**.

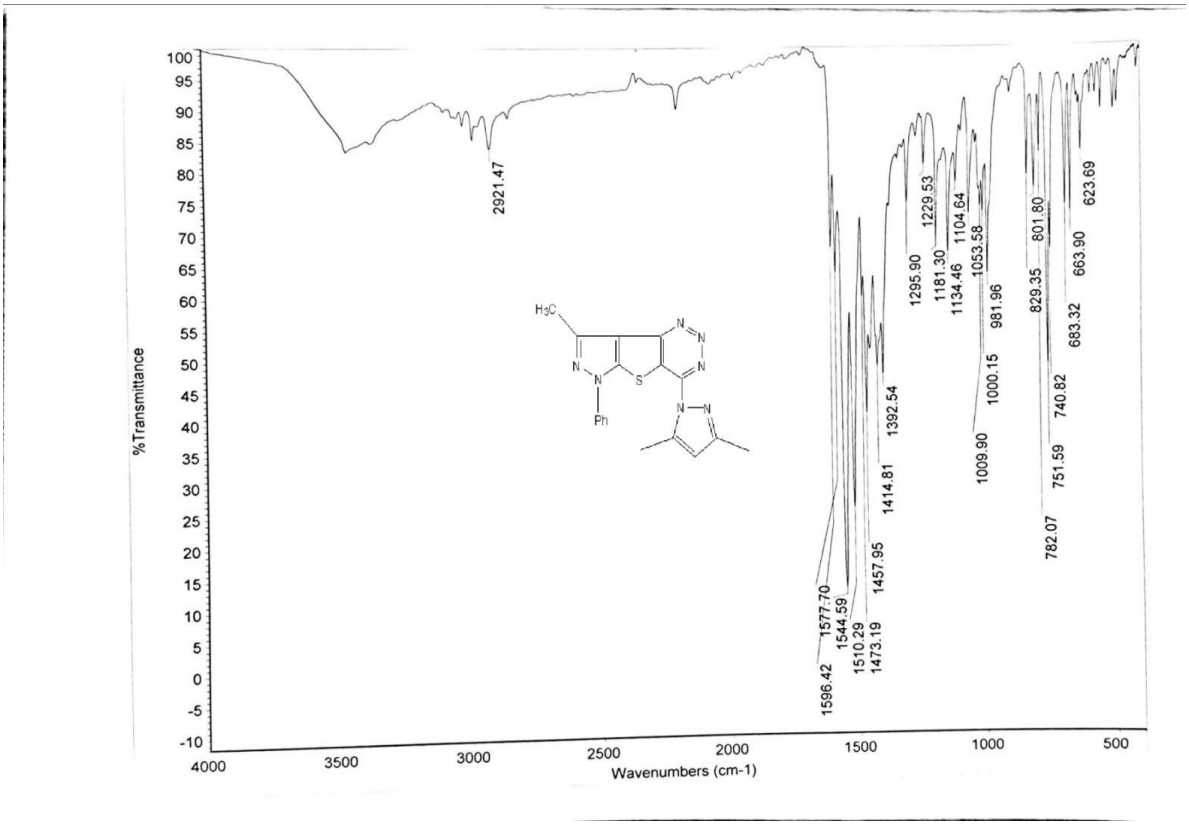

Figure S34. FTIR spectrum (KBr) of the dimethyl pyrazolyl compound **13**.

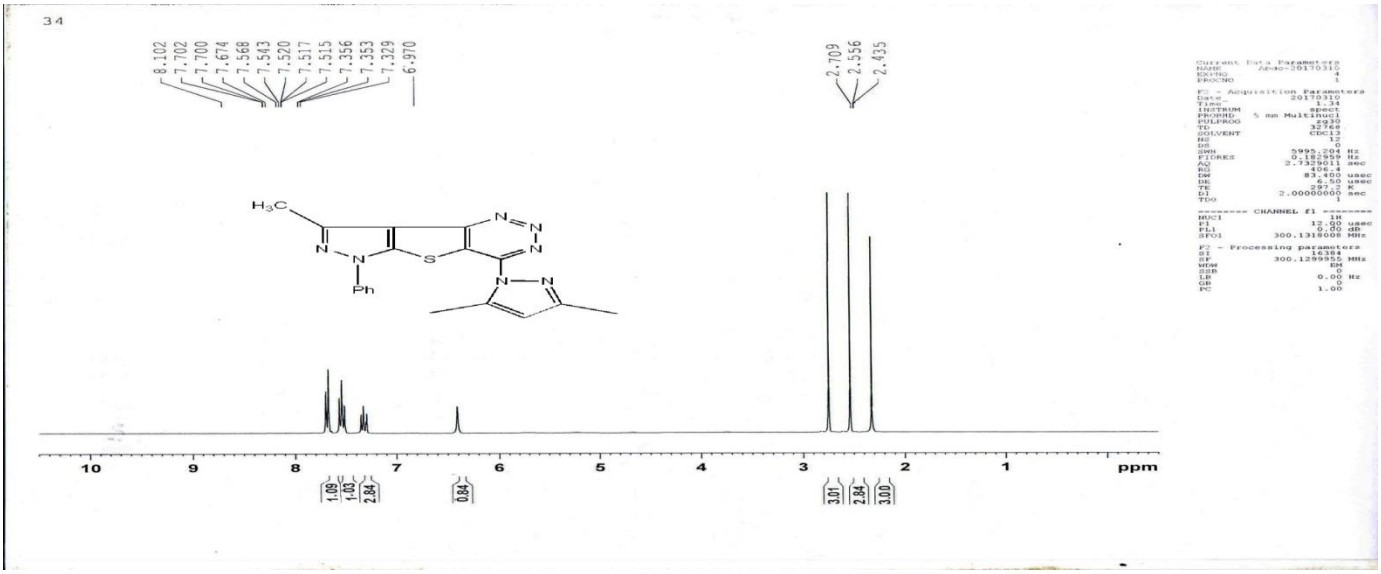

Figure S35. ^{1}H NMR spectrum (300 MHz, $CDCl_3$) of the dimethyl pyrazolyl compound **13**.

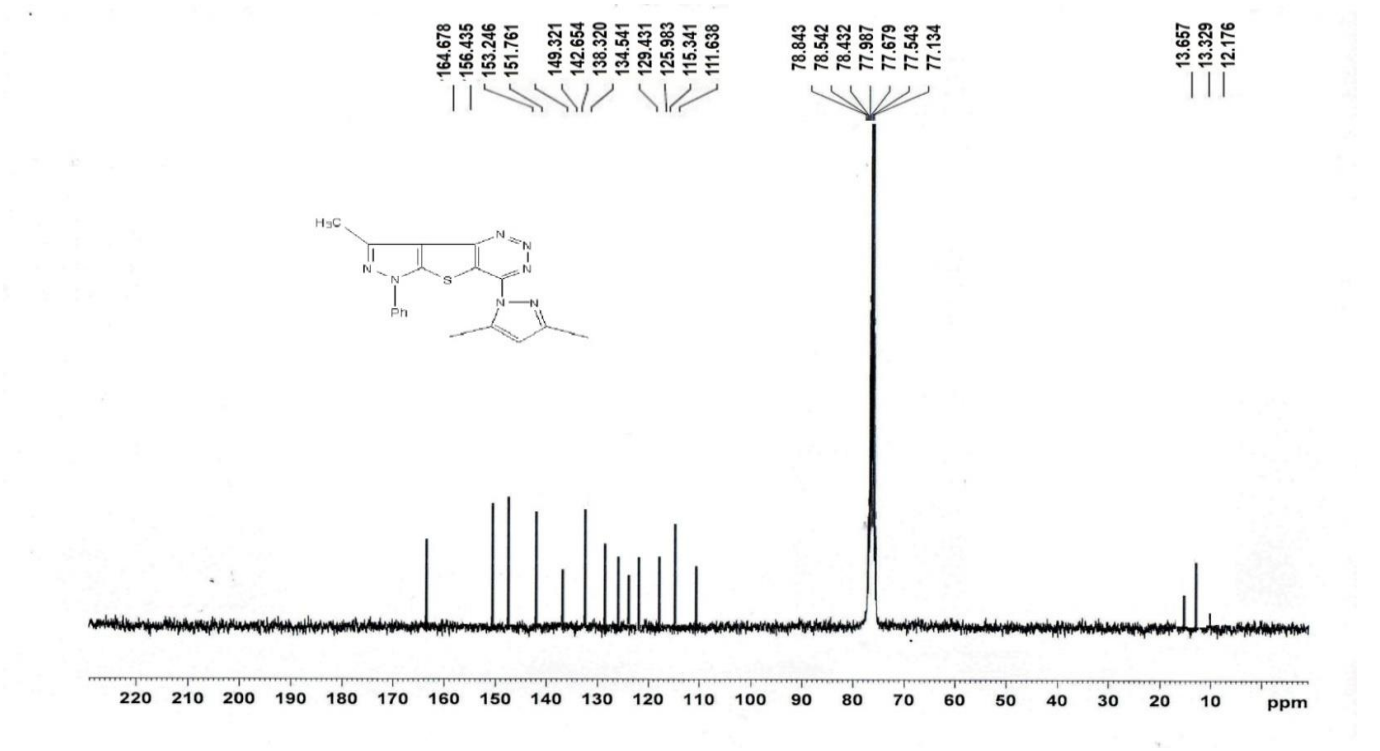

Figure S36. ^{13}C NMR spectrum (300 MHz, $CDCl_3$) of the dimethyl pyrazolyl compound **13**.

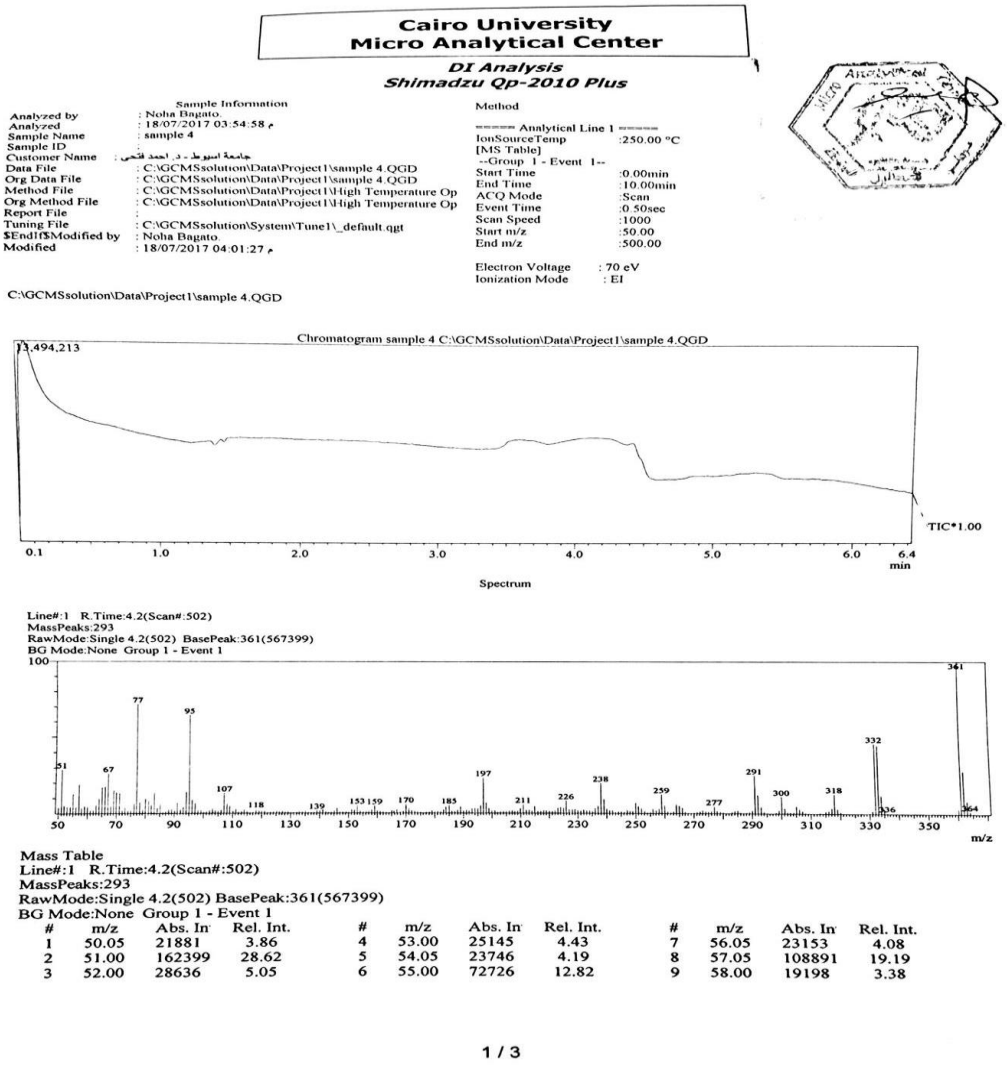

Figure S37. Mass spectrum of the dimethyl pyrazolyl compound **13**.

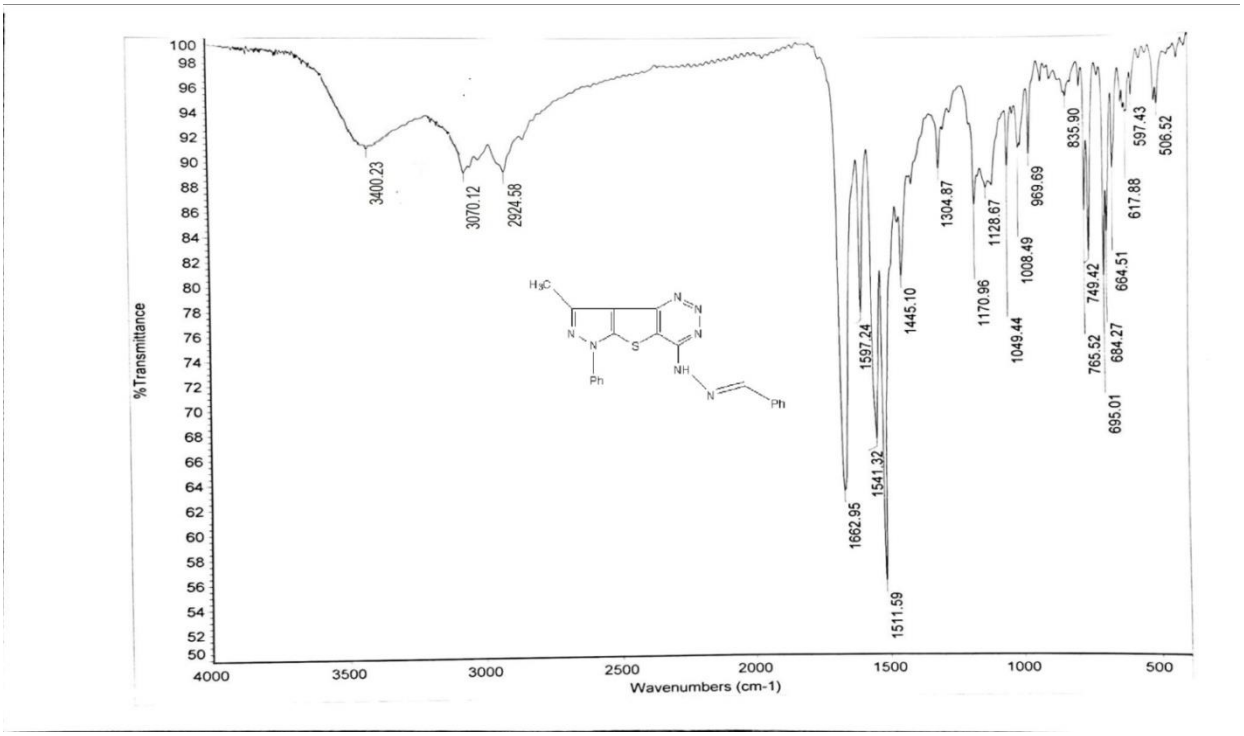

Figure S38. FTIR spectrum (KBr) of the benzylidenehydrazino compound **14**.

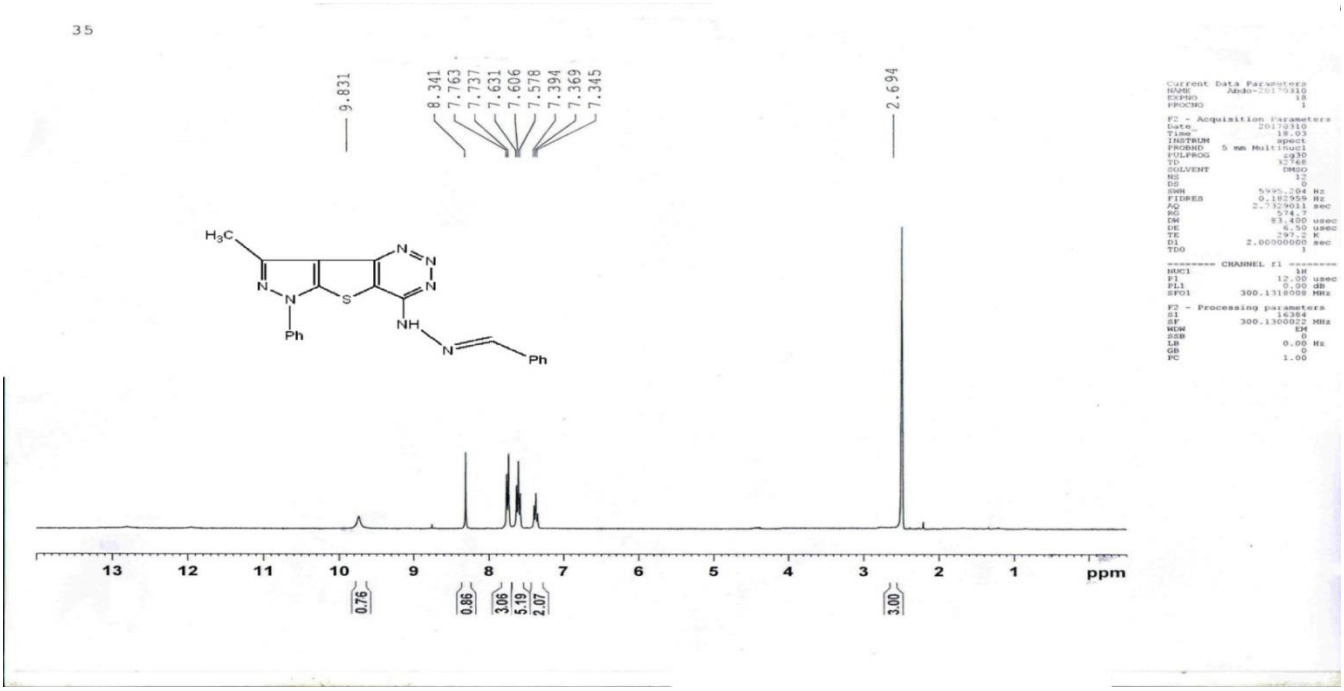

Figure S39. ^{1}H NMR spectrum (300 MHz, DMSO-d_6) of the benzylidenehydrazino compound **14**.

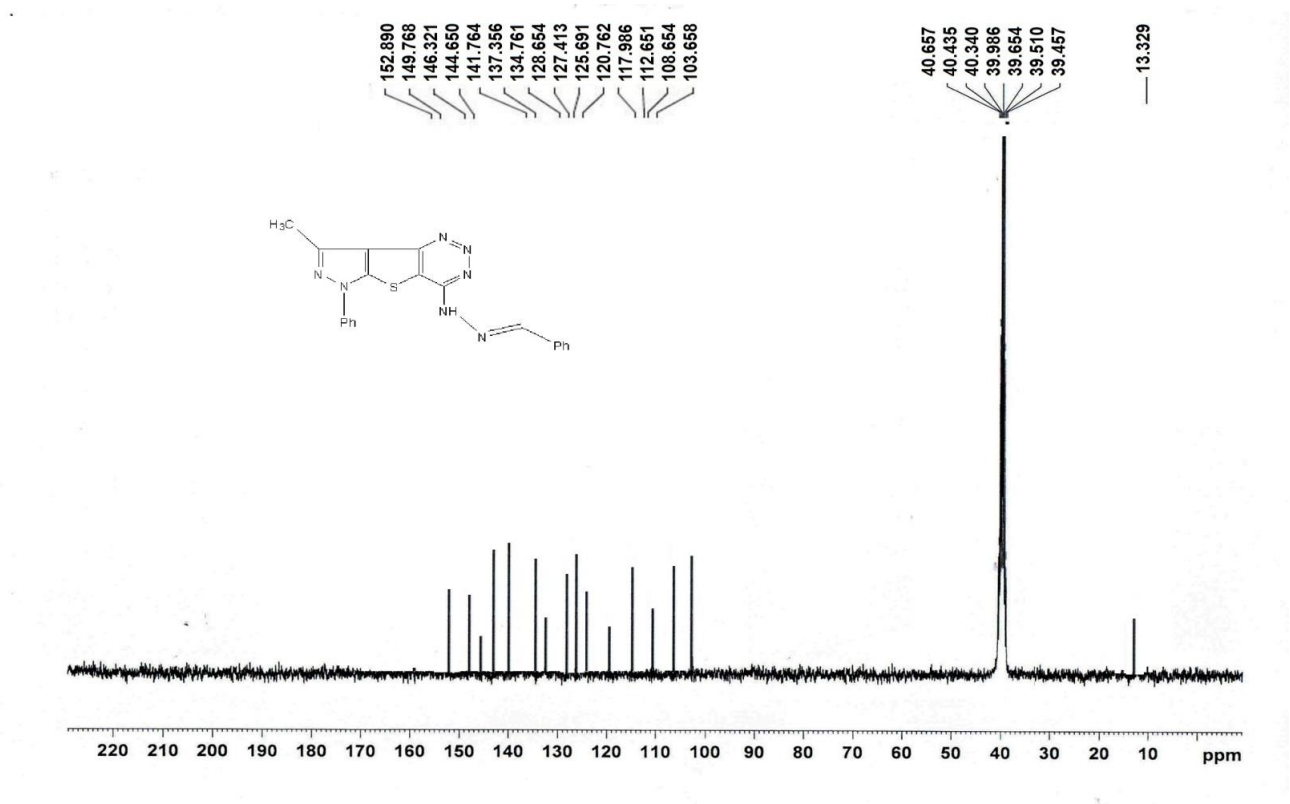

Figure S40. ^{13}C NMR spectrum (300 MHz, DMSO-d_6) of the benzylidenehydrazino compound **14**.