

A magnetic porous organic polymer: Catalytic application in the synthesis of hybrid pyridines with indole, triazole and sulfonamide moieties

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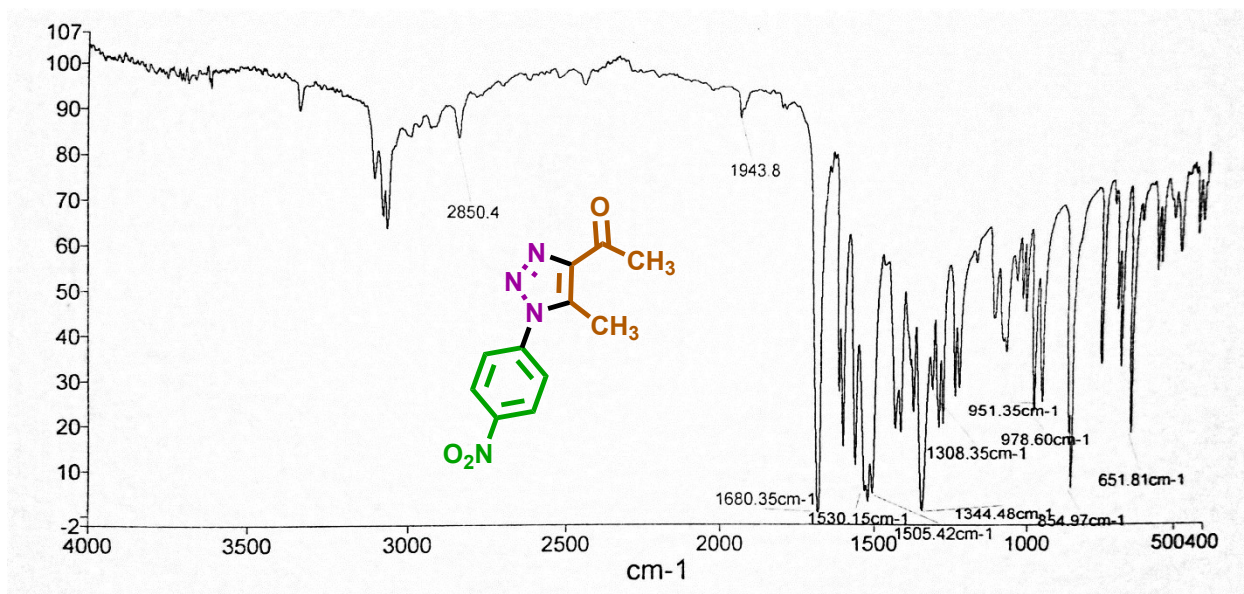
c. School of Chemistry and Chemical Engineering, Huazhong University of Science and Technology, 1037 Luoyu road, Hongshan District, Wuhan 430074

- 1: FT-IR spectrum of 1-(5-methyl-1-(4-nitrophenyl)-1*H*-1,2,3-triazol-4-yl)ethan-1-one (ke1).
- 2: ¹H NMR spectrum of 1-(5-methyl-1-(4-nitrophenyl)-1*H*-1,2,3-triazol-4-yl)ethan-1-one (ke1).
- 3: ¹³C NMR spectrum of 1-(5-methyl-1-(4-nitrophenyl)-1*H*-1,2,3-triazol-4-yl)ethan-1-one (ke1).
- 4: FT-IR spectrum of 1-(1-(4-aminophenyl)-5-methyl-1*H*-1,2,3-triazol-4-yl)ethan-1-one (ke2).
- 5: ¹H NMR spectrum of 1-(1-(4-aminophenyl)-5-methyl-1*H*-1,2,3-triazol-4-yl)ethan-1-one (ke2).
- 6: ¹³C NMR spectrum of 1-(1-(4-aminophenyl)-5-methyl-1*H*-1,2,3-triazol-4-yl)ethan-1-one (ke2).
- 7: FT-IR spectrum of *N*-(4-(4-acetyl-5-methyl-1*H*-1,2,3-triazol-1-yl)phenyl)-4-methylbenzenesulfonamide (ke3).
- 8: ¹H NMR spectrum of *N*-(4-(4-acetyl-5-methyl-1*H*-1,2,3-triazol-1-yl)phenyl)-4-methylbenzenesulfonamide (ke3).
- 9: ¹³C NMR spectrum of *N*-(4-(4-acetyl-5-methyl-1*H*-1,2,3-triazol-1-yl)phenyl)-4-methylbenzenesulfonamide (ke3).
- 10: FT-IR spectrum of *N*-(4-(4-(5-cyano-6-(1*H*-indol-3-yl)-4-phenylpyridin-2-yl)-5-methyl-1*H*-1,2,3-triazol-1-yl)phenyl)-4-methylbenzenesulfonamide (1a).
- 11: ¹H NMR spectrum of *N*-(4-(4-(5-cyano-6-(1*H*-indol-3-yl)-4-phenylpyridin-2-yl)-5-methyl-1*H*-1,2,3-triazol-1-yl)phenyl)-4-methylbenzenesulfonamide (1a).
- 12: ¹³C NMR spectrum of *N*-(4-(4-(5-cyano-6-(1*H*-indol-3-yl)-4-phenylpyridin-2-yl)-5-methyl-1*H*-1,2,3-triazol-1-yl)phenyl)-4-methylbenzenesulfonamide (1a).
- 13: FT-IR spectrum of *N*-(4-(4-(5-cyano-6-(1*H*-indol-3-yl)-4-(*p*-tolyl)pyridin-2-yl)-5-methyl-1*H*-1,2,3-triazol-1-yl)phenyl)-4-methylbenzenesulfonamide (1b).

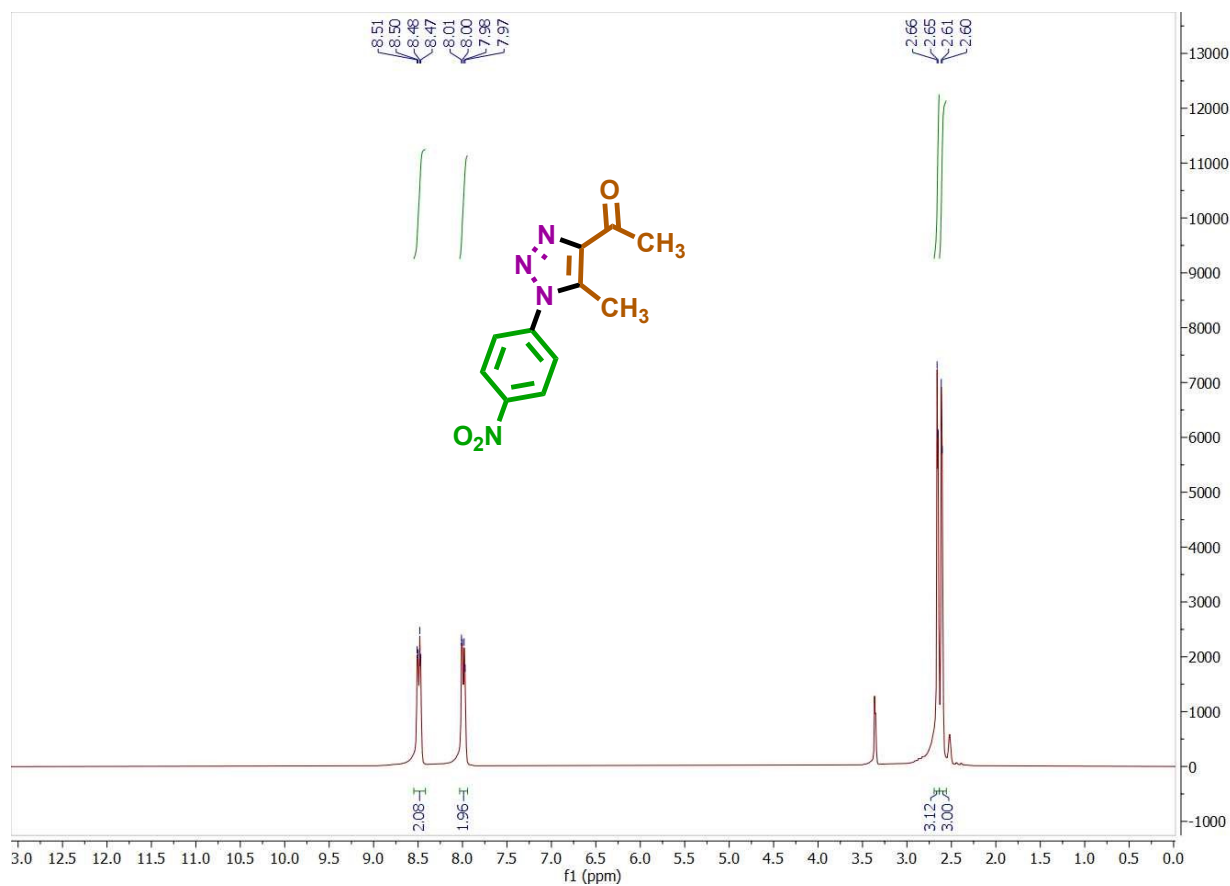
- 14: ¹H NMR spectrum of *N*-(4-(4-(5-cyano-6-(1*H*-indol-3-yl)-4-(*p*-tolyl)pyridin-2-yl)-5-methyl-1*H*-1,2,3-triazol-1-yl)phenyl)-4-methylbenzenesulfonamide (1b).
- 15: ¹³C NMR spectrum of *N*-(4-(4-(5-cyano-6-(1*H*-indol-3-yl)-4-(*p*-tolyl)pyridin-2-yl)-5-methyl-1*H*-1,2,3-triazol-1-yl)phenyl)-4-methylbenzenesulfonamide (1b).
- 16: Mass spectrum of *N*-(4-(4-(5-cyano-6-(1*H*-indol-3-yl)-4-(*p*-tolyl)pyridin-2-yl)-5-methyl-1*H*-1,2,3-triazol-1-yl)phenyl)-4-methylbenzenesulfonamide (1b).
- 17: FT-IR spectrum of *N*-(4-(4-(5-cyano-6-(1*H*-indol-3-yl)-4-(4-isopropylphenyl)pyridin-2-yl)-5-methyl-1*H*-1,2,3-triazol-1-yl)phenyl)-4-methylbenzenesulfonamide (1c).
- 18: ¹H NMR spectrum of *N*-(4-(4-(5-cyano-6-(1*H*-indol-3-yl)-4-(4-isopropylphenyl)pyridin-2-yl)-5-methyl-1*H*-1,2,3-triazol-1-yl)phenyl)-4-methylbenzenesulfonamide (1c).
- 19: ¹³C NMR spectrum of *N*-(4-(4-(5-cyano-6-(1*H*-indol-3-yl)-4-(4-isopropylphenyl)pyridin-2-yl)-5-methyl-1*H*-1,2,3-triazol-1-yl)phenyl)-4-methylbenzenesulfonamide (1c).
- 20: Mass spectrum of *N*-(4-(4-(5-cyano-6-(1*H*-indol-3-yl)-4-(4-isopropylphenyl)pyridin-2-yl)-5-methyl-1*H*-1,2,3-triazol-1-yl)phenyl)-4-methylbenzenesulfonamide (1c).
- 21: FT-IR spectrum of *N*-(4-(4-(5-cyano-4-(4-hydroxyphenyl)-6-(1*H*-indol-3-yl)pyridin-2-yl)-5-methyl-1*H*-1,2,3-triazol-1-yl)phenyl)-4-methylbenzenesulfonamide (1d).
- 22: ¹H NMR spectrum of *N*-(4-(4-(5-cyano-4-(4-hydroxyphenyl)-6-(1*H*-indol-3-yl)pyridin-2-yl)-5-methyl-1*H*-1,2,3-triazol-1-yl)phenyl)-4-methylbenzenesulfonamide (1d).
- 23: ¹³C NMR spectrum of *N*-(4-(4-(5-cyano-4-(4-hydroxyphenyl)-6-(1*H*-indol-3-yl)pyridin-2-yl)-5-methyl-1*H*-1,2,3-triazol-1-yl)phenyl)-4-methylbenzenesulfonamide (1d).
- 24: FT-IR spectrum of *N*-(4-(4-(5-cyano-4-(3-hydroxyphenyl)-6-(1*H*-indol-3-yl)pyridin-2-yl)-5-methyl-1*H*-1,2,3-triazol-1-yl)phenyl)-4-methylbenzenesulfonamide (1e).
- 25: ¹H NMR spectrum of *N*-(4-(4-(5-cyano-4-(3-hydroxyphenyl)-6-(1*H*-indol-3-yl)pyridin-2-yl)-5-methyl-1*H*-1,2,3-triazol-1-yl)phenyl)-4-methylbenzenesulfonamide (1e).
- 26: ¹³C NMR spectrum of *N*-(4-(4-(5-cyano-4-(3-hydroxyphenyl)-6-(1*H*-indol-3-yl)pyridin-2-yl)-5-methyl-1*H*-1,2,3-triazol-1-yl)phenyl)-4-methylbenzenesulfonamide (1e).
- 27: FT-IR spectrum of *N*-(4-(4-(5-cyano-6-(1*H*-indol-3-yl)-4-(4-methoxyphenyl)pyridin-2-yl)-5-methyl-1*H*-1,2,3-triazol-1-yl)phenyl)-4-methylbenzenesulfonamide (1f).
- 28: ¹H NMR spectrum of *N*-(4-(4-(5-cyano-6-(1*H*-indol-3-yl)-4-(4-methoxyphenyl)pyridin-2-yl)-5-methyl-1*H*-1,2,3-triazol-1-yl)phenyl)-4-methylbenzenesulfonamide (1f).
- 29: ¹³C NMR spectrum of *N*-(4-(4-(5-cyano-6-(1*H*-indol-3-yl)-4-(4-methoxyphenyl)pyridin-2-yl)-5-methyl-1*H*-1,2,3-triazol-1-yl)phenyl)-4-methylbenzenesulfonamide (1f).
- 30: Mass spectrum of *N*-(4-(4-(5-cyano-6-(1*H*-indol-3-yl)-4-(4-methoxyphenyl)pyridin-2-yl)-5-methyl-1*H*-1,2,3-triazol-1-yl)phenyl)-4-methylbenzenesulfonamide (1f).
- 31: FT-IR spectrum of *N*-(4-(4-(5-cyano-6-(1*H*-indol-3-yl)-4-(2-methoxyphenyl)pyridin-2-yl)-5-methyl-1*H*-1,2,3-triazol-1-yl)phenyl)-4-methylbenzenesulfonamide (1g).

- 32: ¹H NMR spectrum of *N*-(4-(4-(5-cyano-6-(1*H*-indol-3-yl)-4-(2-methoxyphenyl)pyridin-2-yl)-5-methyl-1*H*-1,2,3-triazol-1-yl)phenyl)-4-methylbenzenesulfonamide (1g).
- 33: ¹³C NMR spectrum of *N*-(4-(4-(5-cyano-6-(1*H*-indol-3-yl)-4-(2-methoxyphenyl)pyridin-2-yl)-5-methyl-1*H*-1,2,3-triazol-1-yl)phenyl)-4-methylbenzenesulfonamide (1g).
- 34: FT-IR spectrum of *N*-(4-(4-(5-cyano-4-(3,4-dimethoxyphenyl)-6-(1*H*-indol-3-yl)pyridin-2-yl)-5-methyl-1*H*-1,2,3-triazol-1-yl)phenyl)-4-methylbenzenesulfonamide (1h).
- 35: ¹H NMR spectrum of *N*-(4-(4-(5-cyano-4-(3,4-dimethoxyphenyl)-6-(1*H*-indol-3-yl)pyridin-2-yl)-5-methyl-1*H*-1,2,3-triazol-1-yl)phenyl)-4-methylbenzenesulfonamide (1h).
- 36: ¹³C NMR spectrum of *N*-(4-(4-(5-cyano-4-(3,4-dimethoxyphenyl)-6-(1*H*-indol-3-yl)pyridin-2-yl)-5-methyl-1*H*-1,2,3-triazol-1-yl)phenyl)-4-methylbenzenesulfonamide (1h).
- 37: FT-IR spectrum of *N*-(4-(4-(5-cyano-4-(3-ethoxy-4-hydroxyphenyl)-6-(1*H*-indol-3-yl)pyridin-2-yl)-5-methyl-1*H*-1,2,3-triazol-1-yl)phenyl)-4-methylbenzenesulfonamide (1i).
- 38: ¹H NMR spectrum of *N*-(4-(4-(5-cyano-4-(3-ethoxy-4-hydroxyphenyl)-6-(1*H*-indol-3-yl)pyridin-2-yl)-5-methyl-1*H*-1,2,3-triazol-1-yl)phenyl)-4-methylbenzenesulfonamide (1i).
- 39: ¹³C NMR spectrum of *N*-(4-(4-(5-cyano-4-(3-ethoxy-4-hydroxyphenyl)-6-(1*H*-indol-3-yl)pyridin-2-yl)-5-methyl-1*H*-1,2,3-triazol-1-yl)phenyl)-4-methylbenzenesulfonamide (1i).
- 40: FT-IR spectrum of *N*-(4-(4-(4-(4-bromophenyl)-5-cyano-6-(1*H*-indol-3-yl)pyridin-2-yl)-5-methyl-1*H*-1,2,3-triazol-1-yl)phenyl)-4-methylbenzenesulfonamide (1j).
- 41: ¹H NMR spectrum of *N*-(4-(4-(4-(4-bromophenyl)-5-cyano-6-(1*H*-indol-3-yl)pyridin-2-yl)-5-methyl-1*H*-1,2,3-triazol-1-yl)phenyl)-4-methylbenzenesulfonamide (1j).
- 42: ¹³C NMR spectrum of *N*-(4-(4-(4-(4-bromophenyl)-5-cyano-6-(1*H*-indol-3-yl)pyridin-2-yl)-5-methyl-1*H*-1,2,3-triazol-1-yl)phenyl)-4-methylbenzenesulfonamide (1j).
- 43: FT-IR spectrum of *N*-(4-(4-(5-cyano-4-(2,4-dichlorophenyl)-6-(1*H*-indol-3-yl)pyridin-2-yl)-5-methyl-1*H*-1,2,3-triazol-1-yl)phenyl)-4-methylbenzenesulfonamide (1k).
- 44: ¹H NMR spectrum of *N*-(4-(4-(5-cyano-4-(2,4-dichlorophenyl)-6-(1*H*-indol-3-yl)pyridin-2-yl)-5-methyl-1*H*-1,2,3-triazol-1-yl)phenyl)-4-methylbenzenesulfonamide (1k).
- 45: ¹³C NMR spectrum of *N*-(4-(4-(5-cyano-4-(2,4-dichlorophenyl)-6-(1*H*-indol-3-yl)pyridin-2-yl)-5-methyl-1*H*-1,2,3-triazol-1-yl)phenyl)-4-methylbenzenesulfonamide (1k).
- 46: Mass spectrum of *N*-(4-(4-(5-cyano-4-(2,4-dichlorophenyl)-6-(1*H*-indol-3-yl)pyridin-2-yl)-5-methyl-1*H*-1,2,3-triazol-1-yl)phenyl)-4-methylbenzenesulfonamide (1k).
- 47: IR spectrum of recovered TMIPOP
- 48: Magnetic susceptibility curve of TMIPOP.
- 49: XRD patterns of TIPOP and TMIPOP.
- 50: TG/DTG curves of TMIPOP.

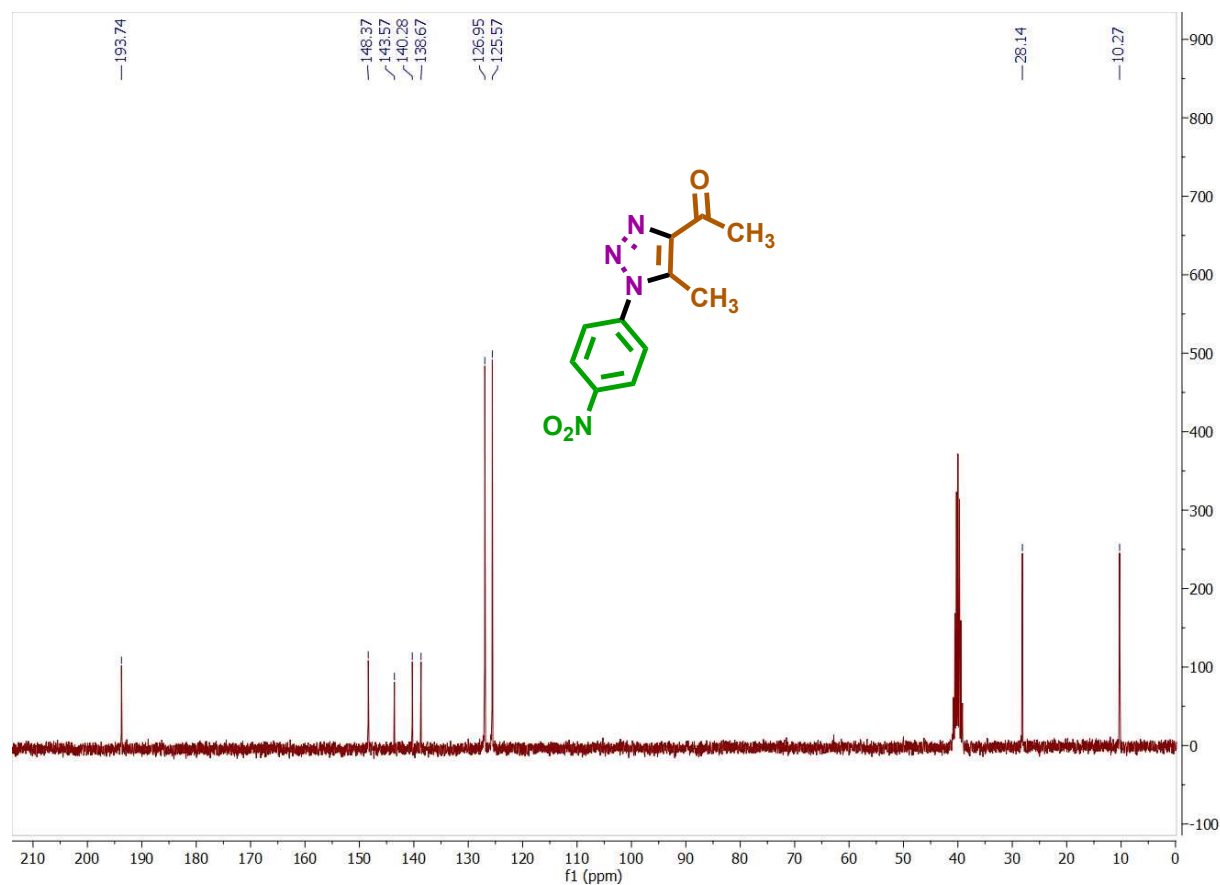
1: FT-IR spectrum of 1-(5-methyl-1-(4-nitrophenyl)-1*H*-1,2,3-triazol-4-yl)ethan-1-one (ke1).



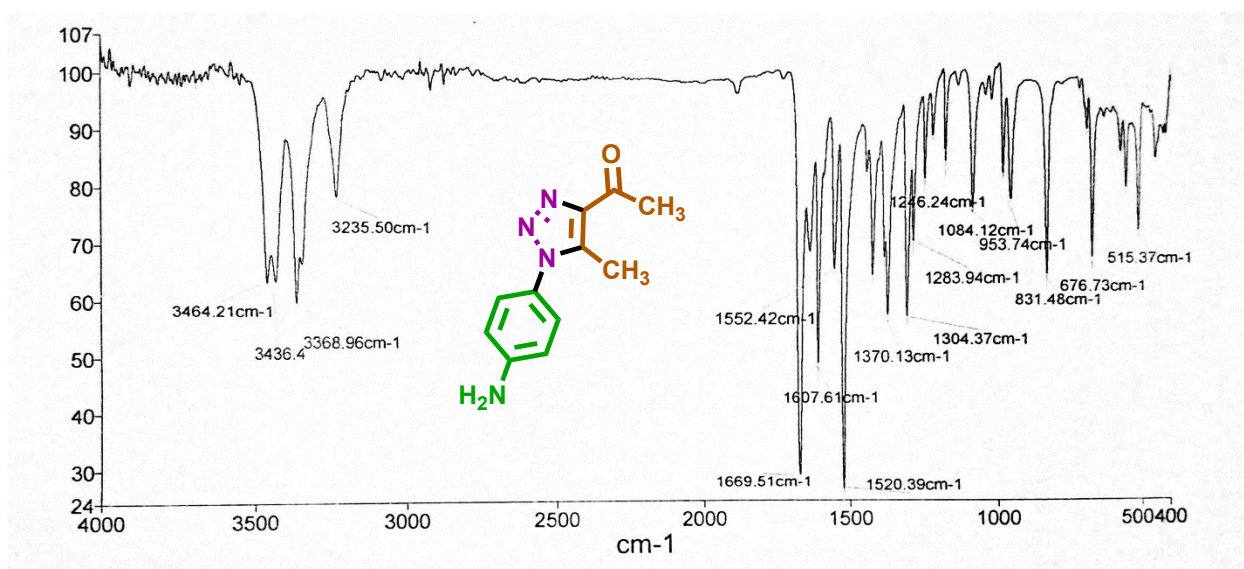
2: ¹H NMR spectrum of 1-(5-methyl-1-(4-nitrophenyl)-1*H*-1,2,3-triazol-4-yl)ethan-1-one (ke1).



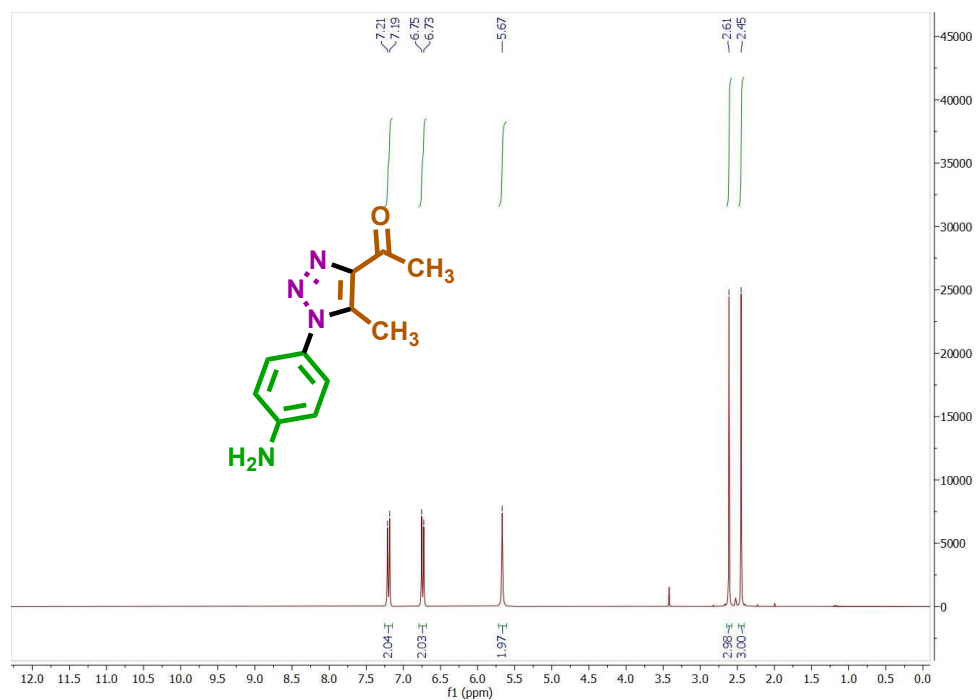
3: ^{13}C NMR spectrum of 1-(5-methyl-1-(4-nitrophenyl)-1*H*-1,2,3-triazol-4-yl)ethan-1-one (ke1).



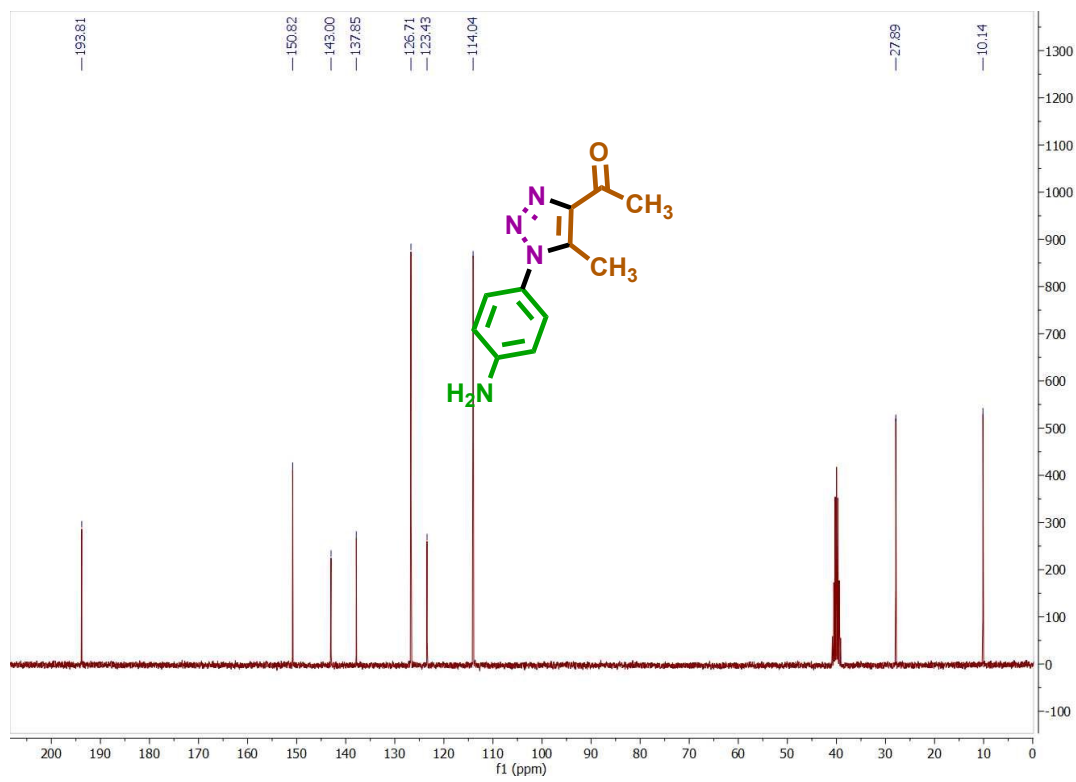
4: FT-IR spectrum of 1-(1-(4-aminophenyl)-5-methyl-1*H*-1,2,3-triazol-4-yl)ethan-1-one (ke2).



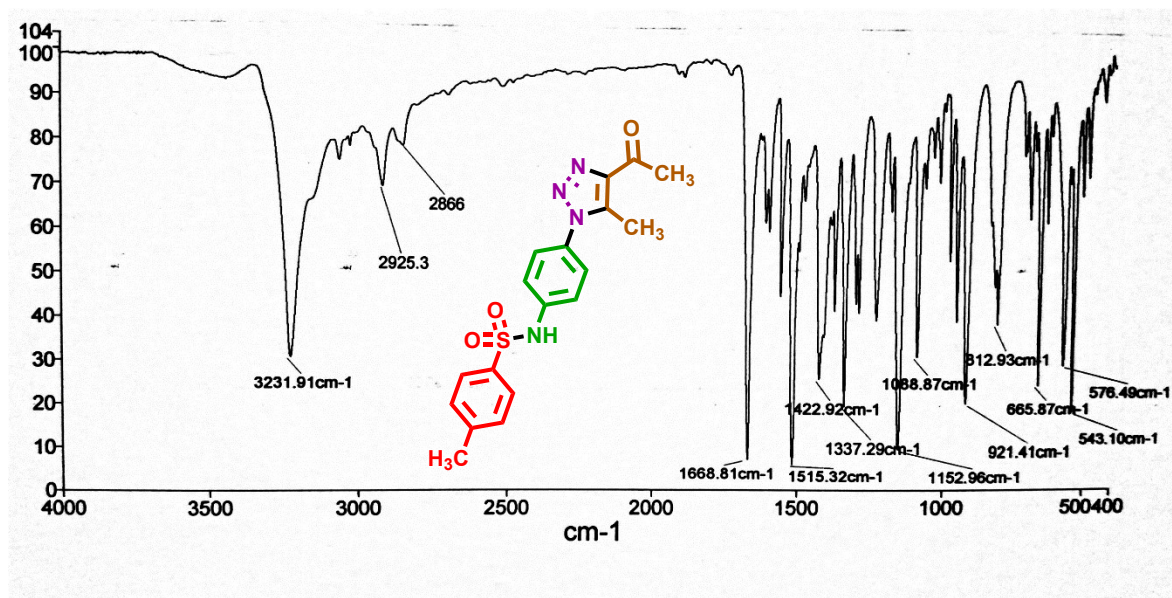
5: ^1H NMR spectrum of 1-(1-(4-aminophenyl)-5-methyl-1*H*-1,2,3-triazol-4-yl)ethan-1-one (ke2).



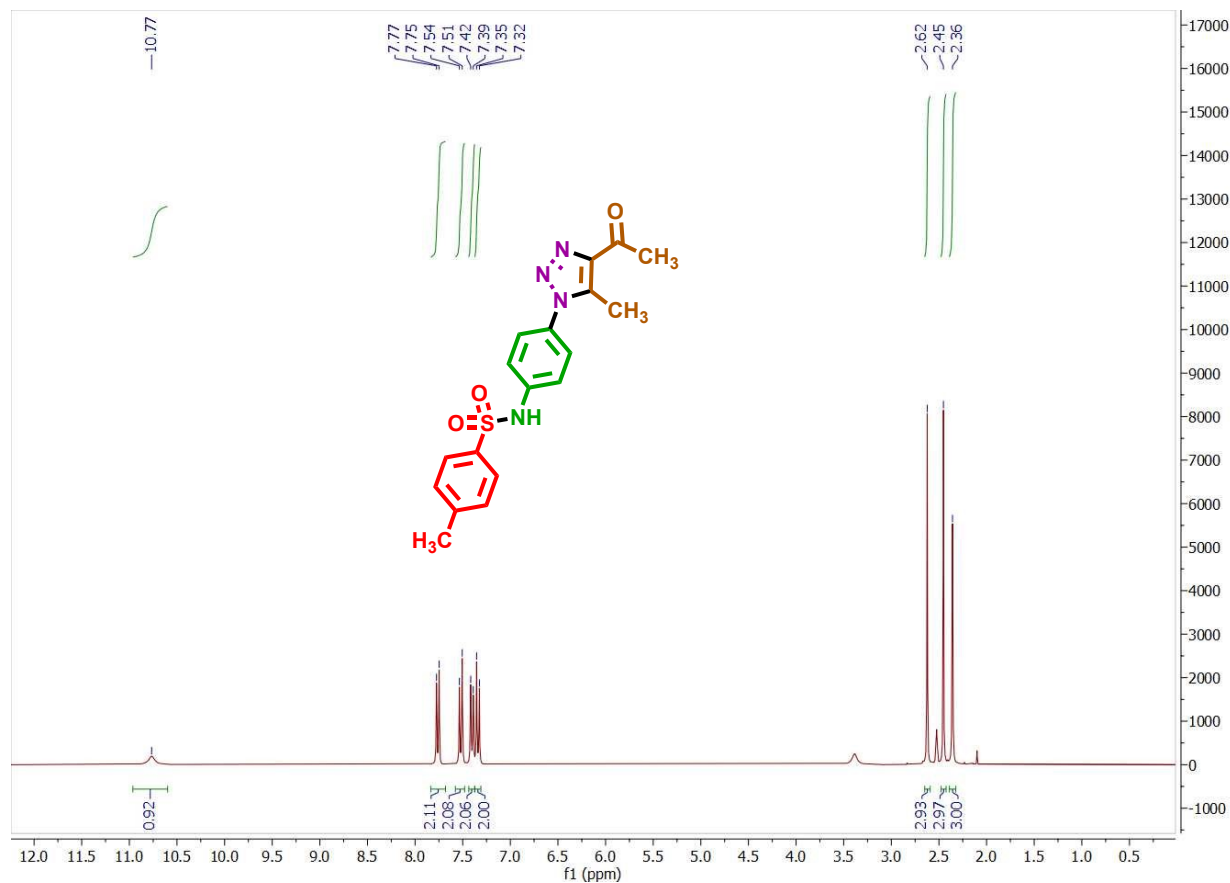
6: ^{13}C NMR spectrum of 1-(1-(4-aminophenyl)-5-methyl-1*H*-1,2,3-triazol-4-yl)ethan-1-one (ke2).



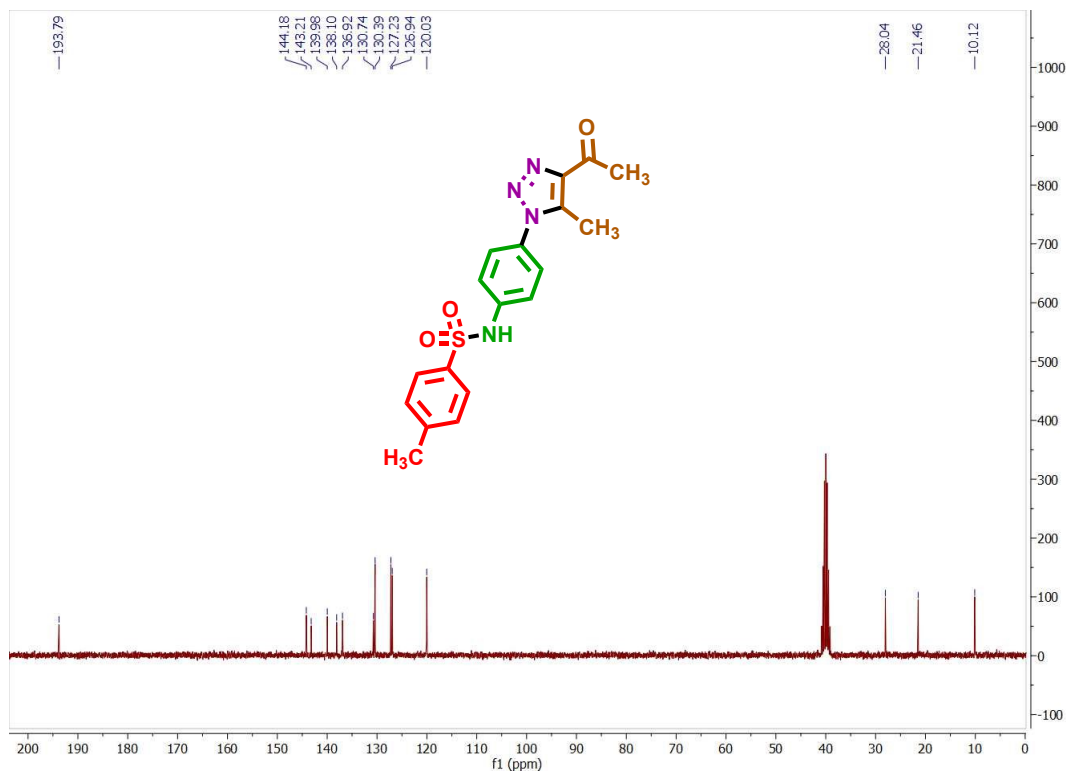
7: FT-IR spectrum of *N*-(4-(4-acetyl-5-methyl-1*H*-1,2,3-triazol-1-yl)phenyl)-4-methylbenzenesulfonamide (ke3).



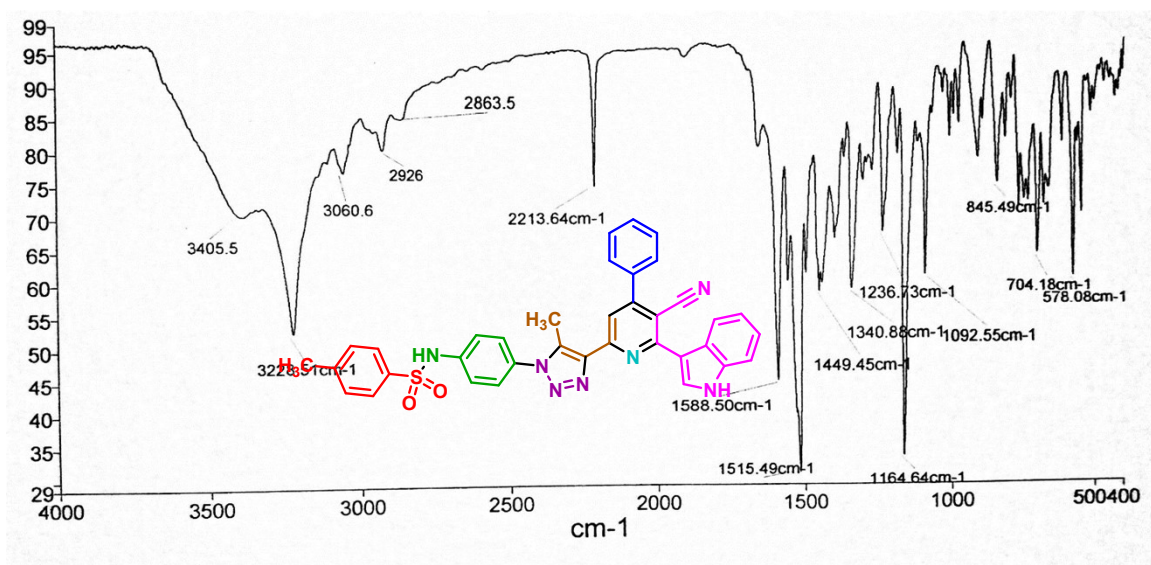
8: ¹H NMR spectrum of *N*-(4-(4-acetyl-5-methyl-1*H*-1,2,3-triazol-1-yl)phenyl)-4-methylbenzenesulfonamide (ke3).



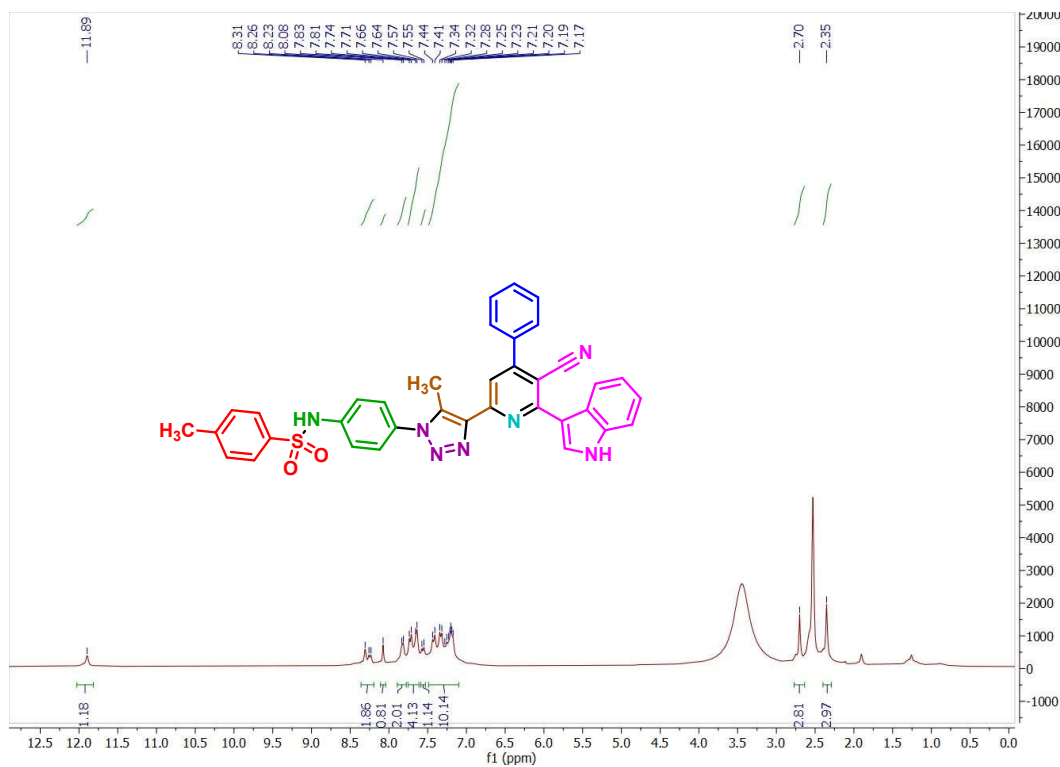
9: ^{13}C NMR spectrum of *N*-(4-(4-acetyl-5-methyl-1*H*-1,2,3-triazol-1-yl)phenyl)-4-methylbenzenesulfonamide (ke3).



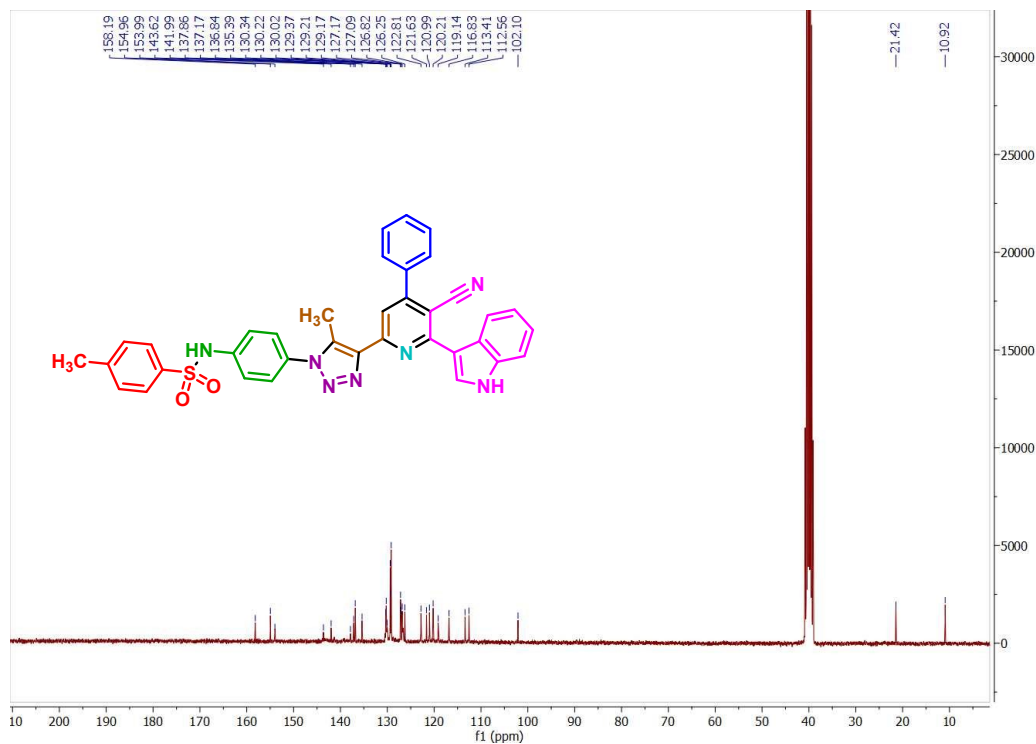
10: FT-IR spectrum of *N*-(4-(4-(5-cyano-6-(1*H*-indol-3-yl)-4-phenylpyridin-2-yl)-5-methyl-1*H*-1,2,3-triazol-1-yl)phenyl)-4-methylbenzenesulfonamide (1a).



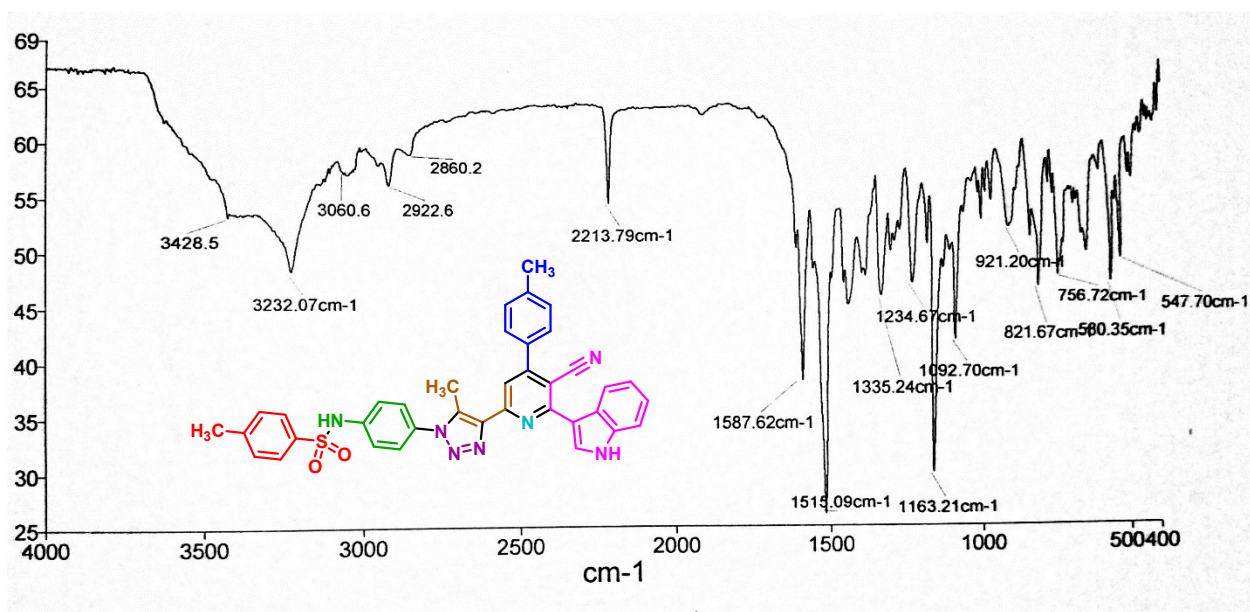
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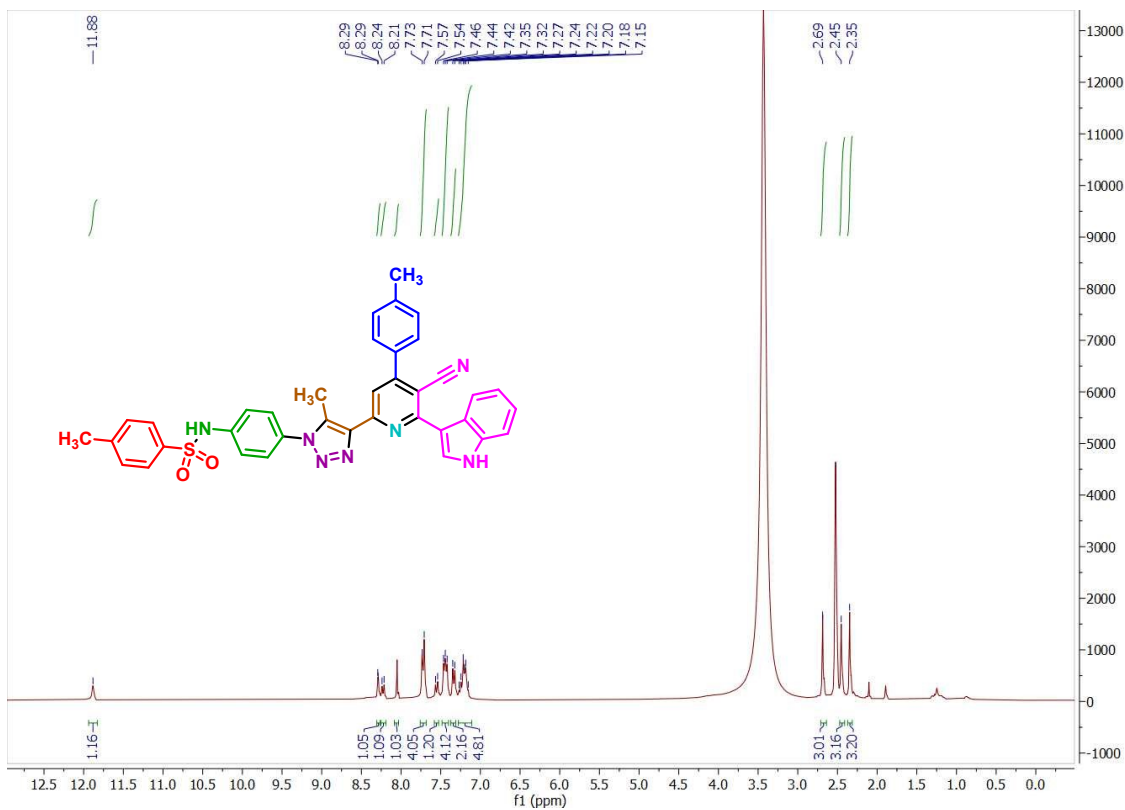
12: ^{13}C NMR spectrum of *N*-(4-(4-(5-cyano-6-(1*H*-indol-3-yl)-4-phenylpyridin-2-yl)-5-methyl-1*H*-1,2,3-triazol-1-yl)phenyl)-4-methylbenzenesulfonamide (1a).



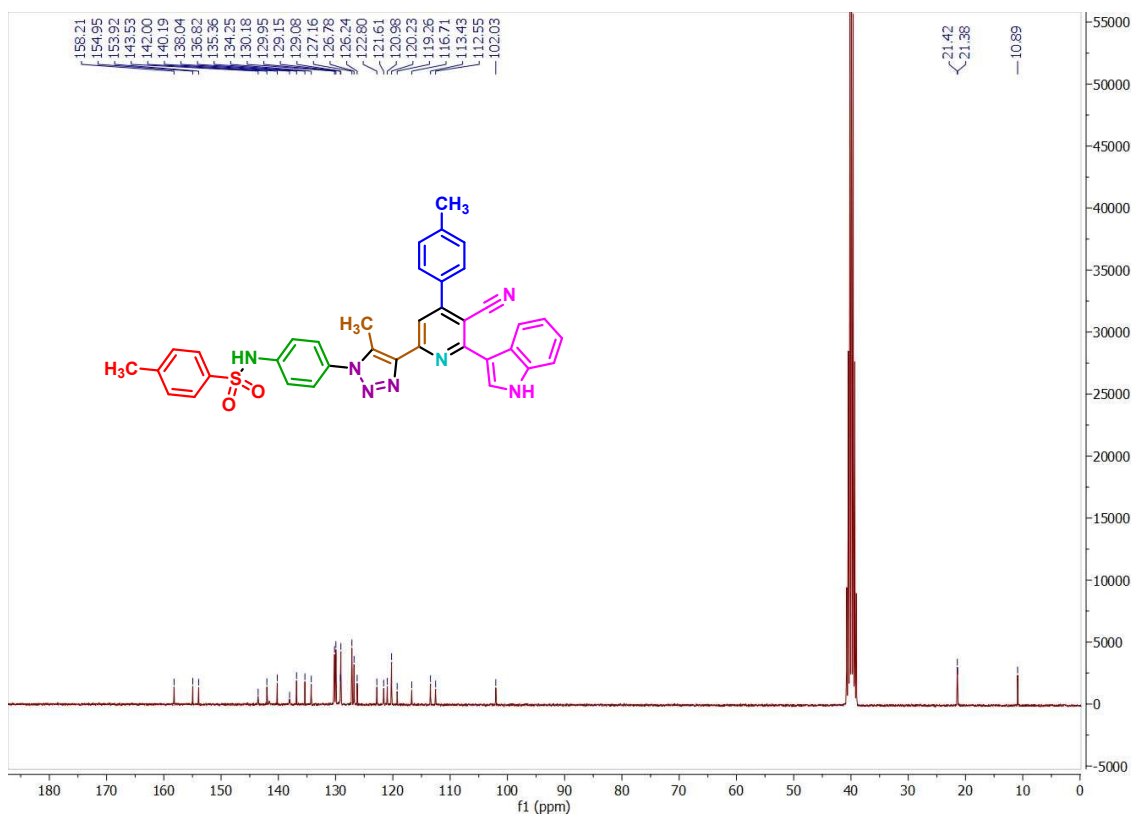
13: FT-IR spectrum of *N*-(4-(4-(5-cyano-6-(1*H*-indol-3-yl)-4-(*p*-tolyl)pyridin-2-yl)-5-methyl-1*H*-1,2,3-triazol-1-yl)phenyl)-4-methylbenzenesulfonamide (1b).



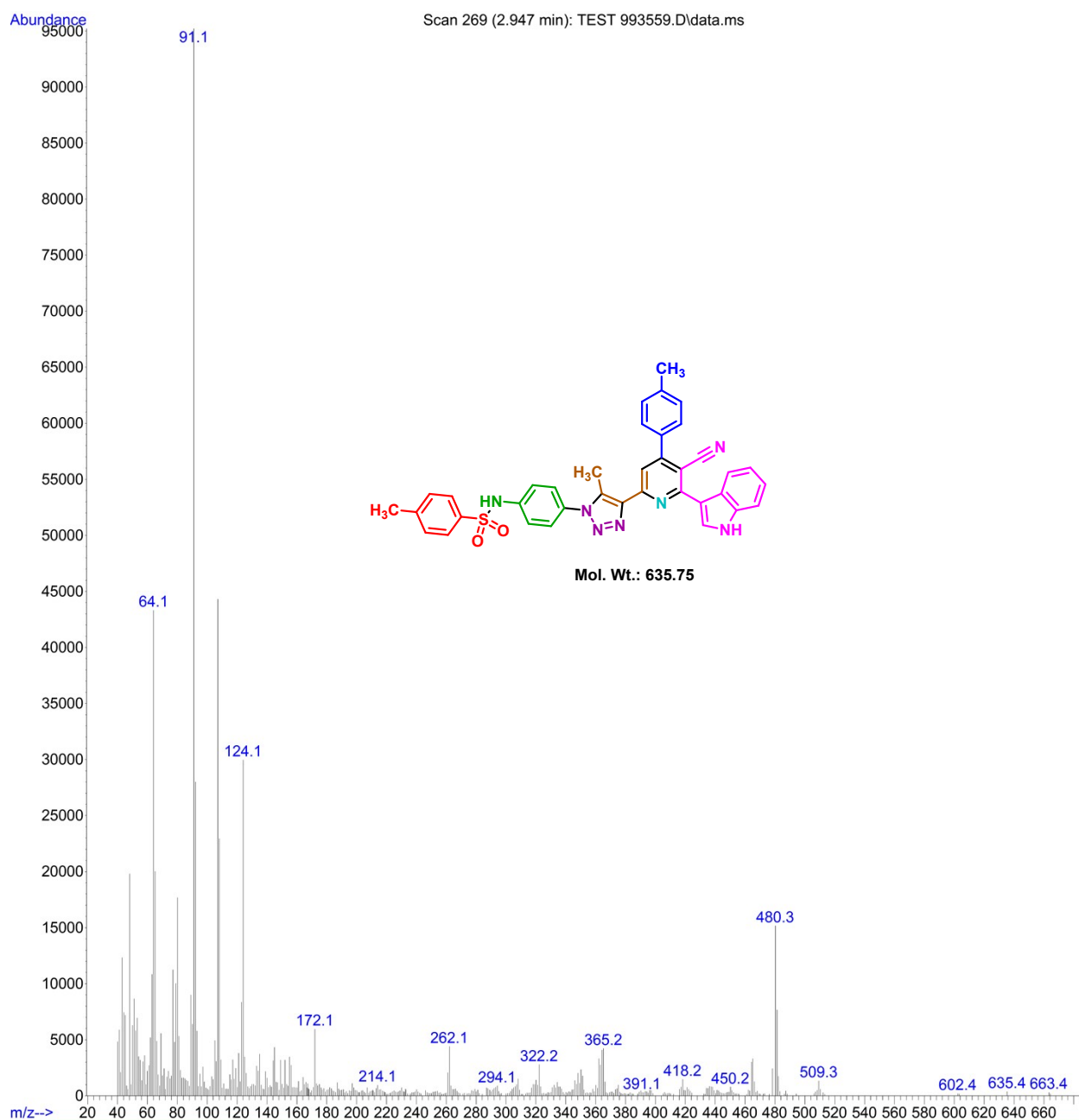
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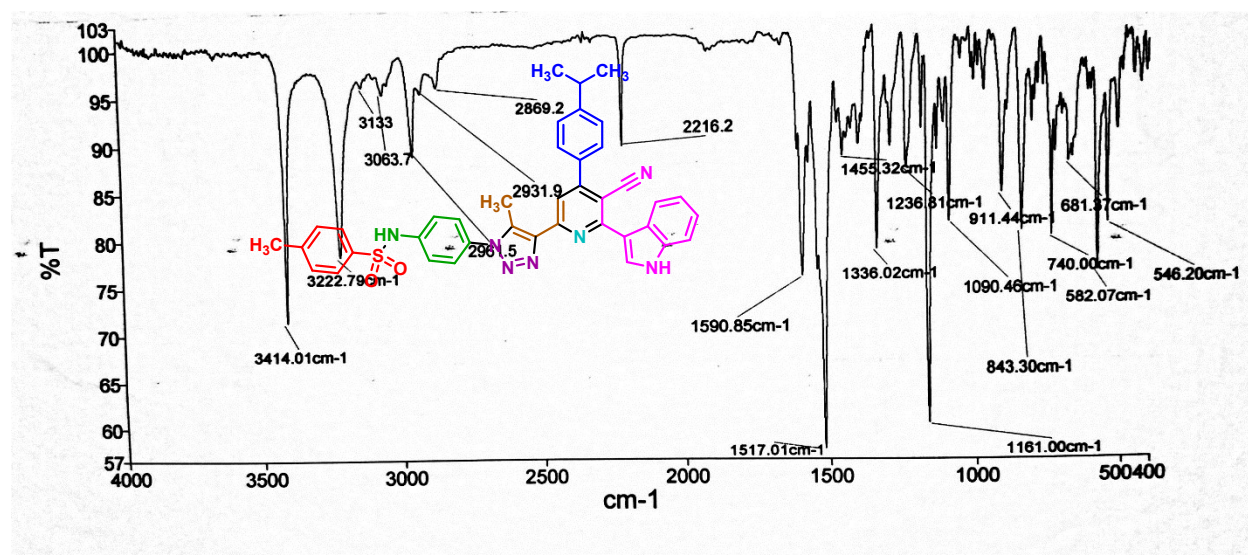
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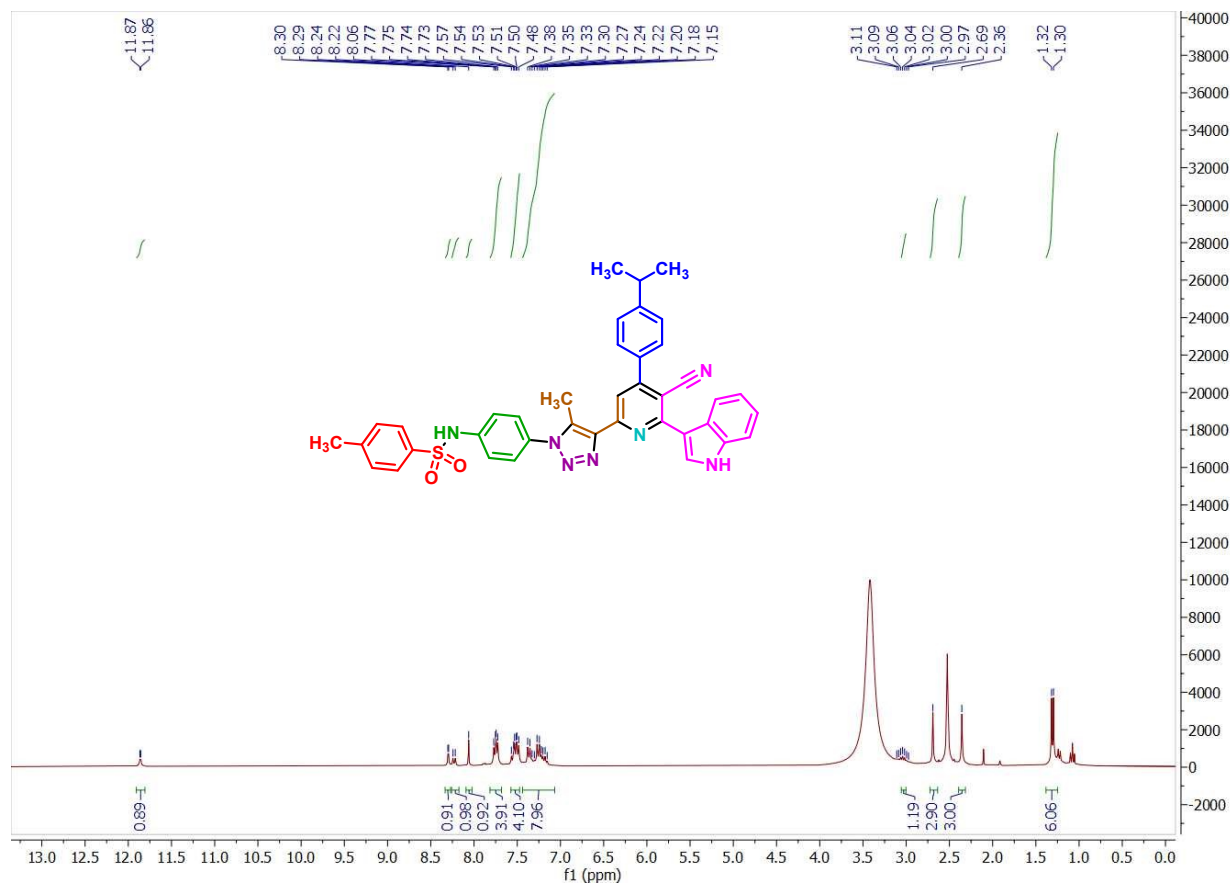
16: Mass spectrum of *N*-(4-(4-(5-cyano-6-(1*H*-indol-3-yl)-4-(*p*-tolyl)pyridin-2-yl)-5-methyl-1*H*-1,2,3-triazol-1-yl)phenyl)-4-methylbenzenesulfonamide (1b).



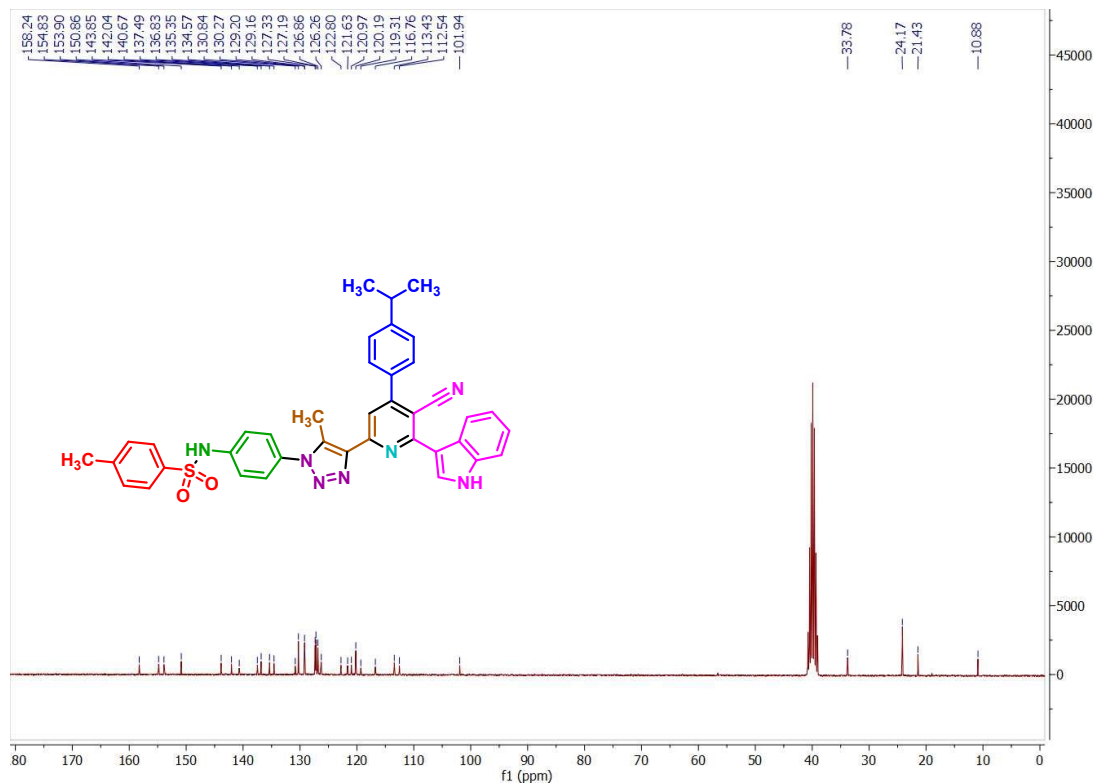
17: FT-IR spectrum of *N*-(4-(4-(5-cyano-6-(1*H*-indol-3-yl)-4-(4-isopropylphenyl)pyridin-2-yl)-5-methyl-1*H*-1,2,3-triazol-1-yl)phenyl)-4-methylbenzenesulfonamide (1c).



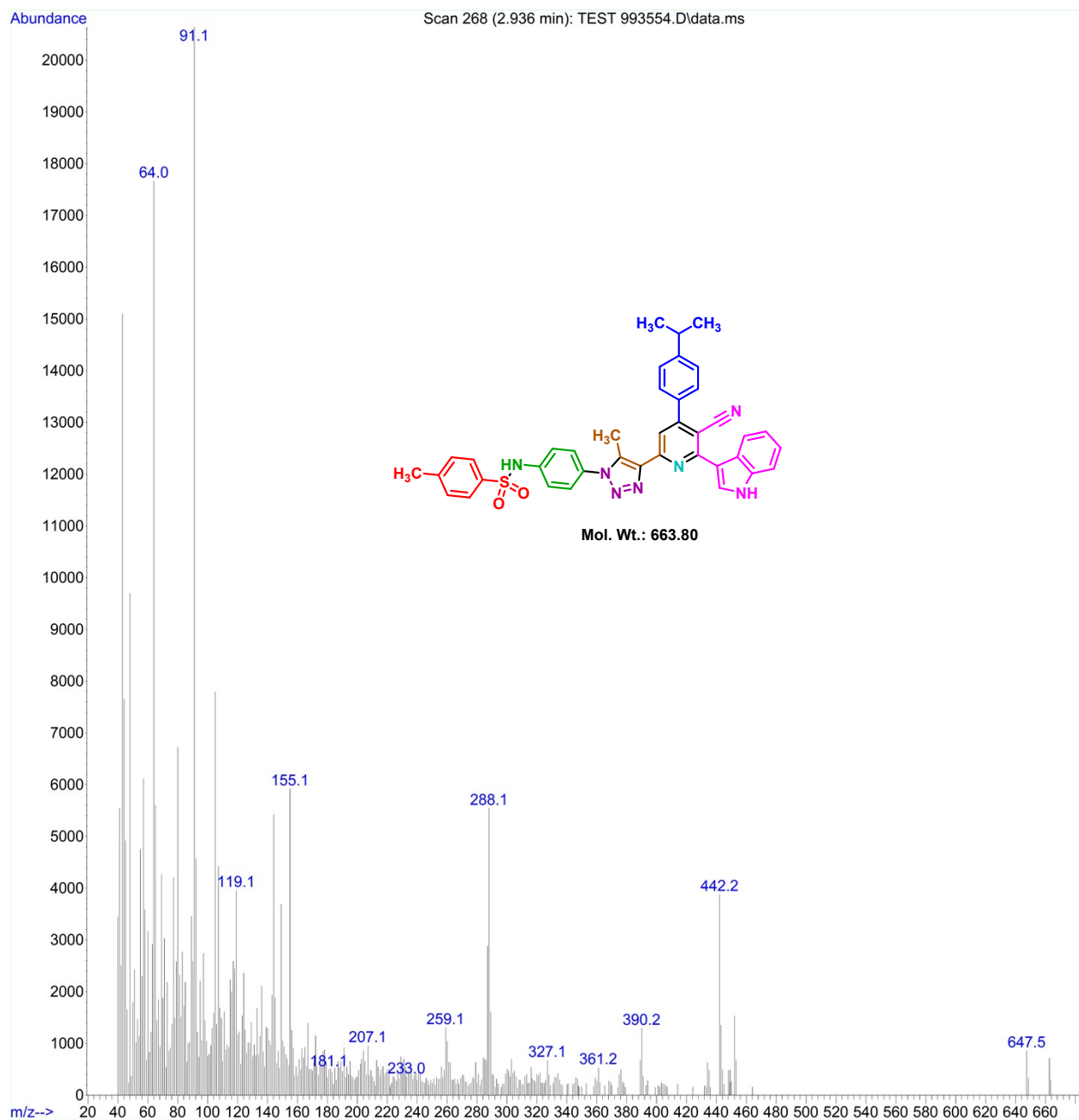
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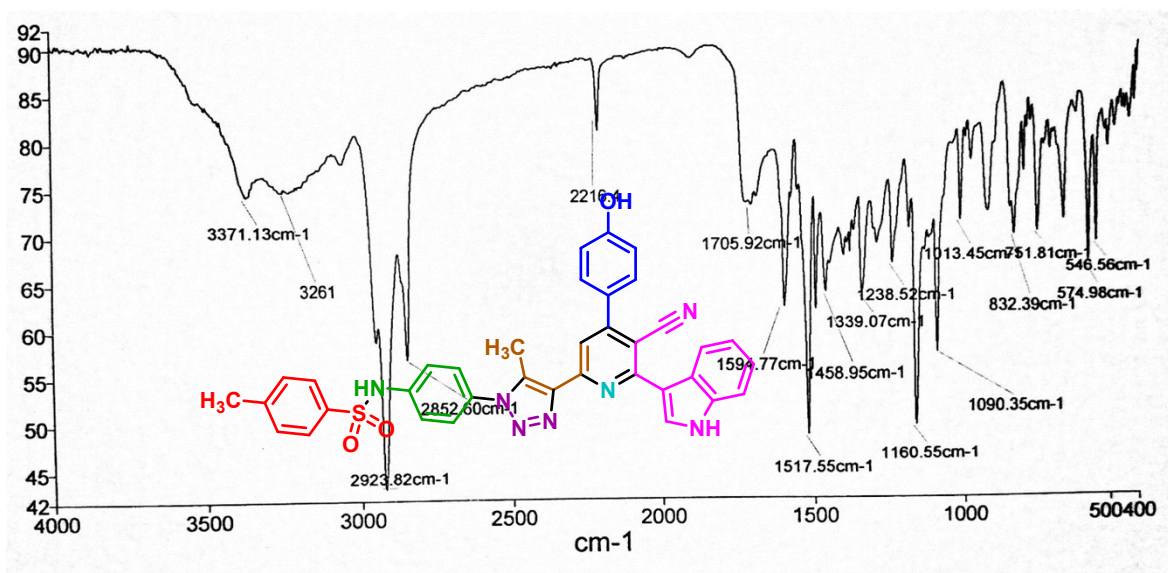
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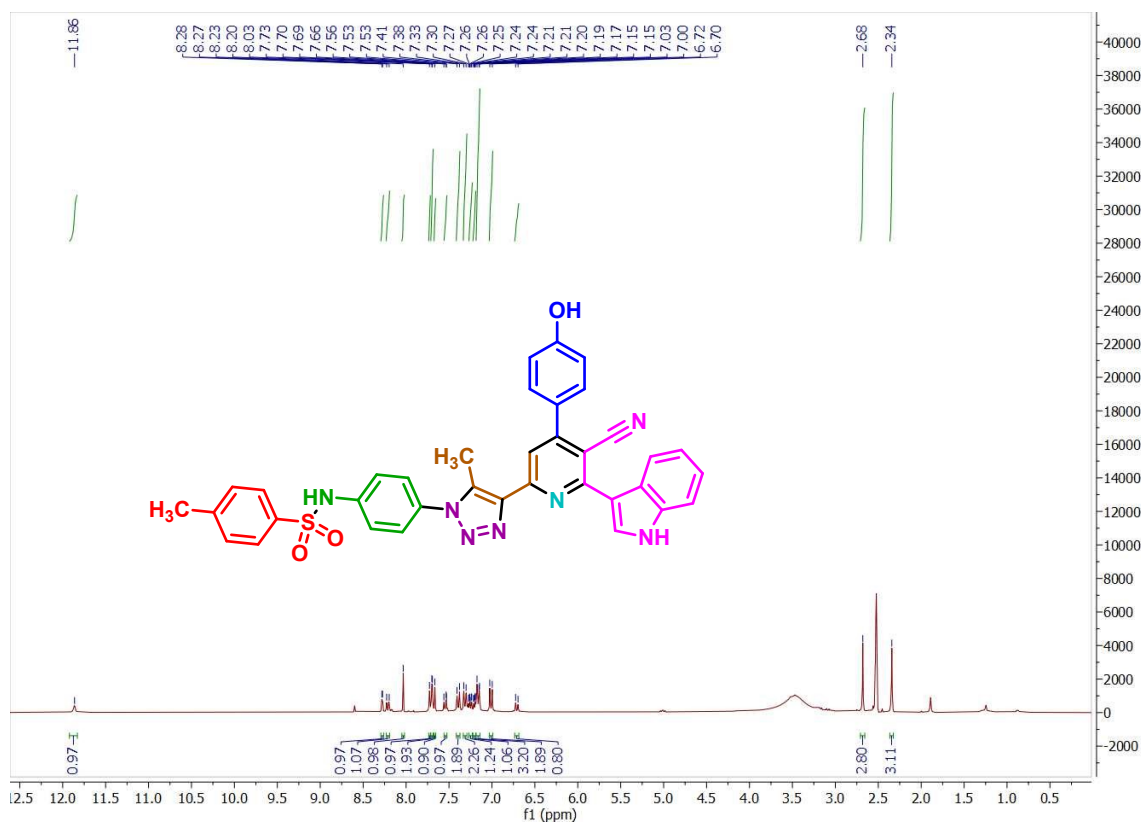
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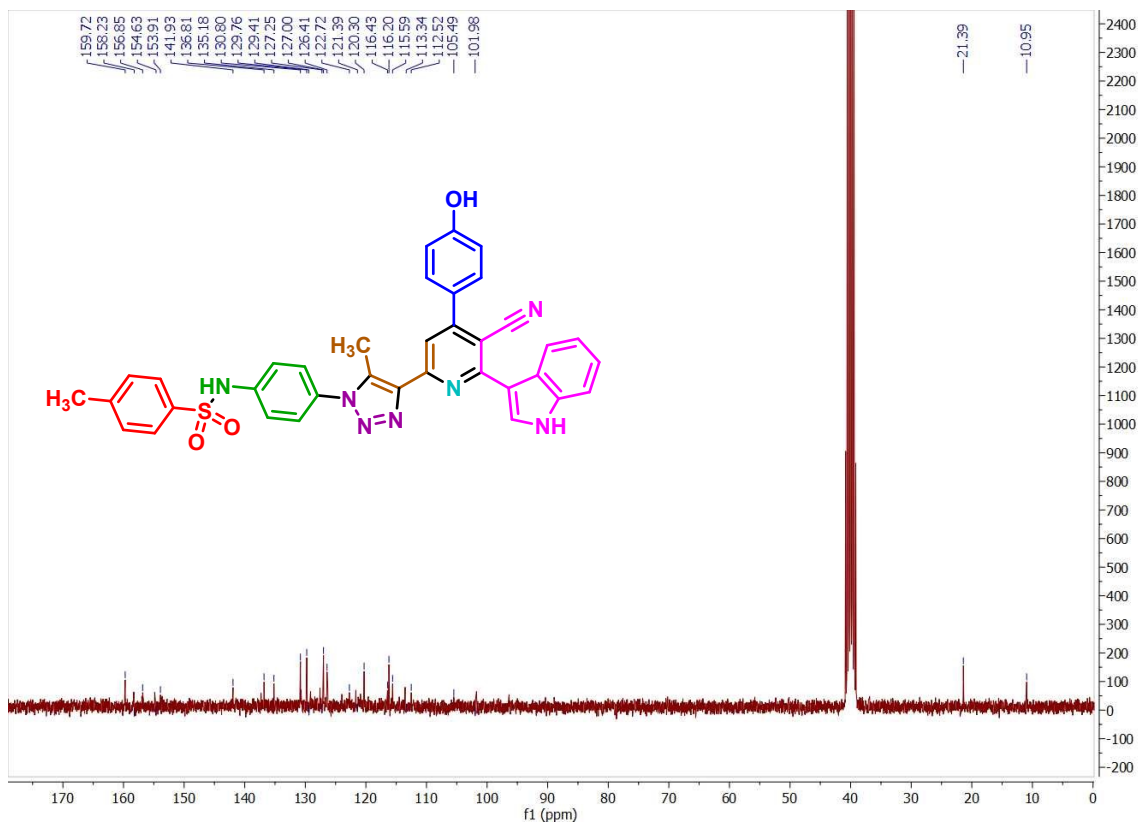
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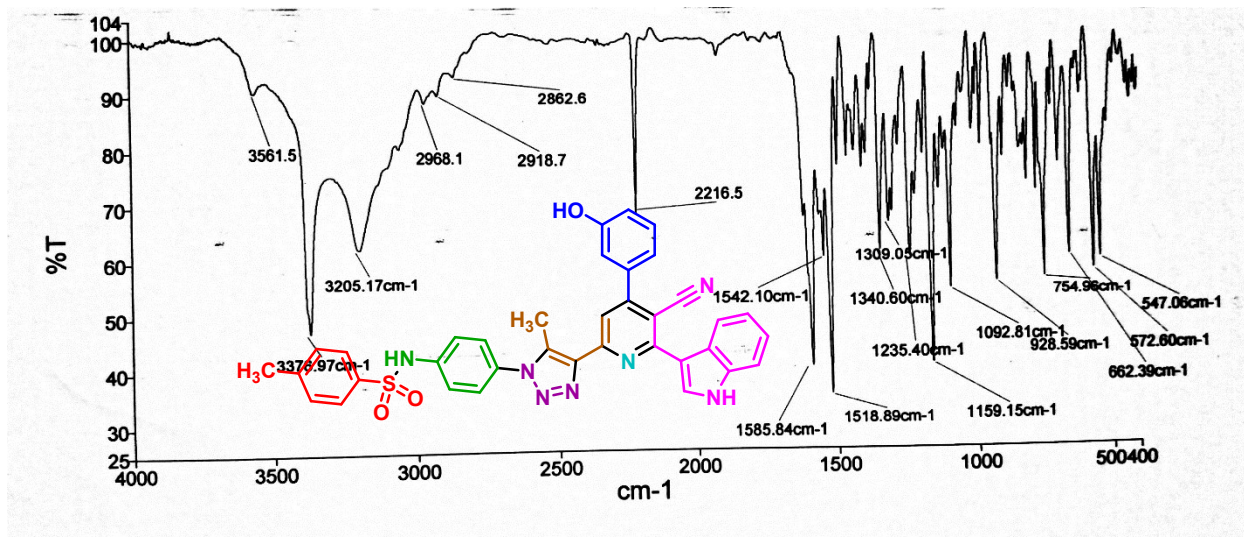
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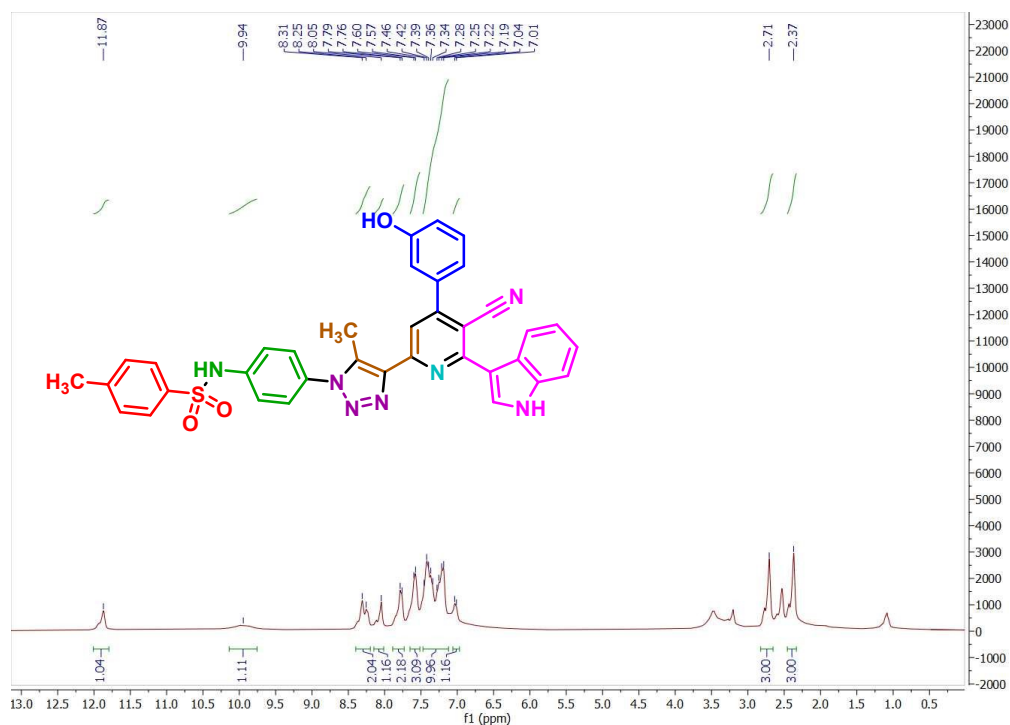
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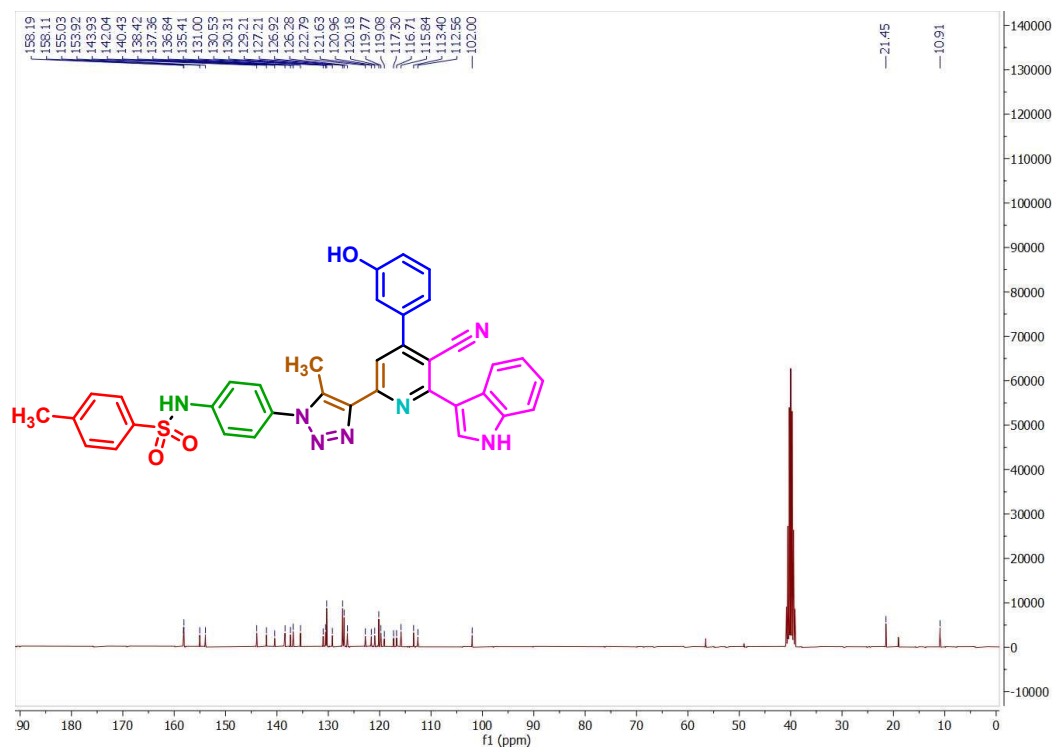
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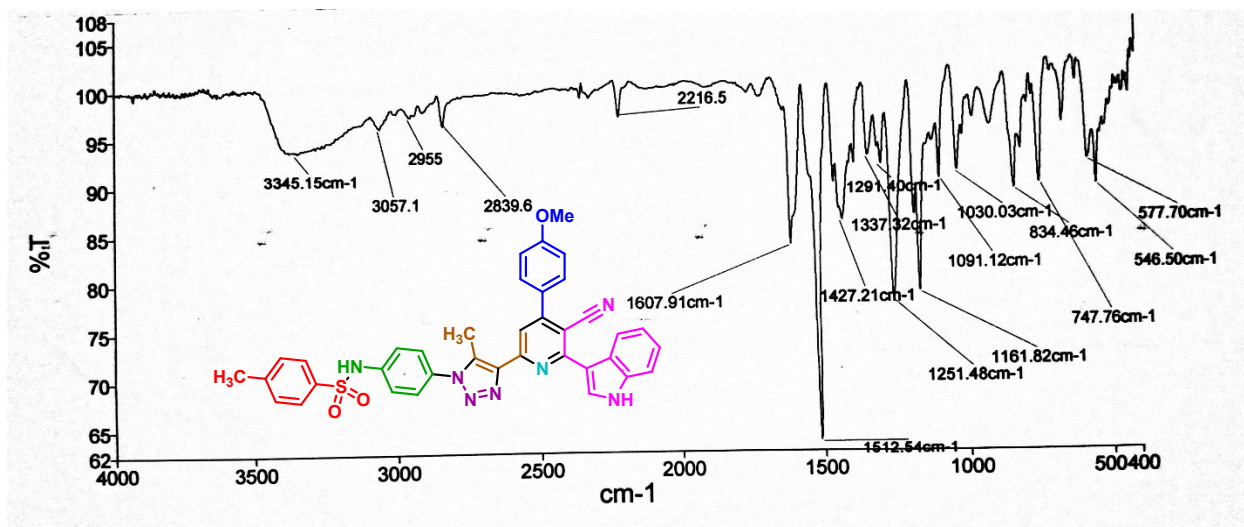
25: ^1H NMR spectrum of *N*-(4-(4-(5-cyano-4-(3-hydroxyphenyl)-6-(1*H*-indol-3-yl)pyridin-2-yl)-5-methyl-1*H*-1,2,3-triazol-1-yl)phenyl)-4-methylbenzenesulfonamide (1e).



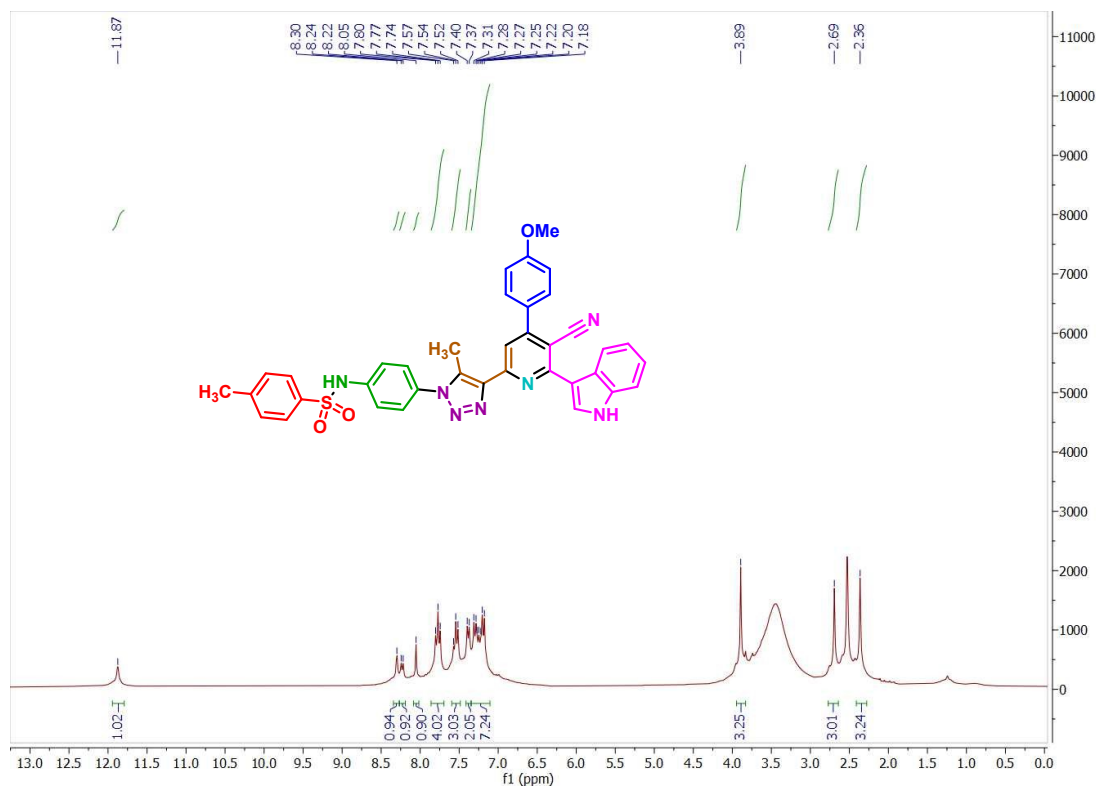
26: ^{13}C NMR spectrum of *N*-(4-(4-(5-cyano-4-(3-hydroxyphenyl)-6-(1*H*-indol-3-yl)pyridin-2-yl)-5-methyl-1*H*-1,2,3-triazol-1-yl)phenyl)-4-methylbenzenesulfonamide (1e).



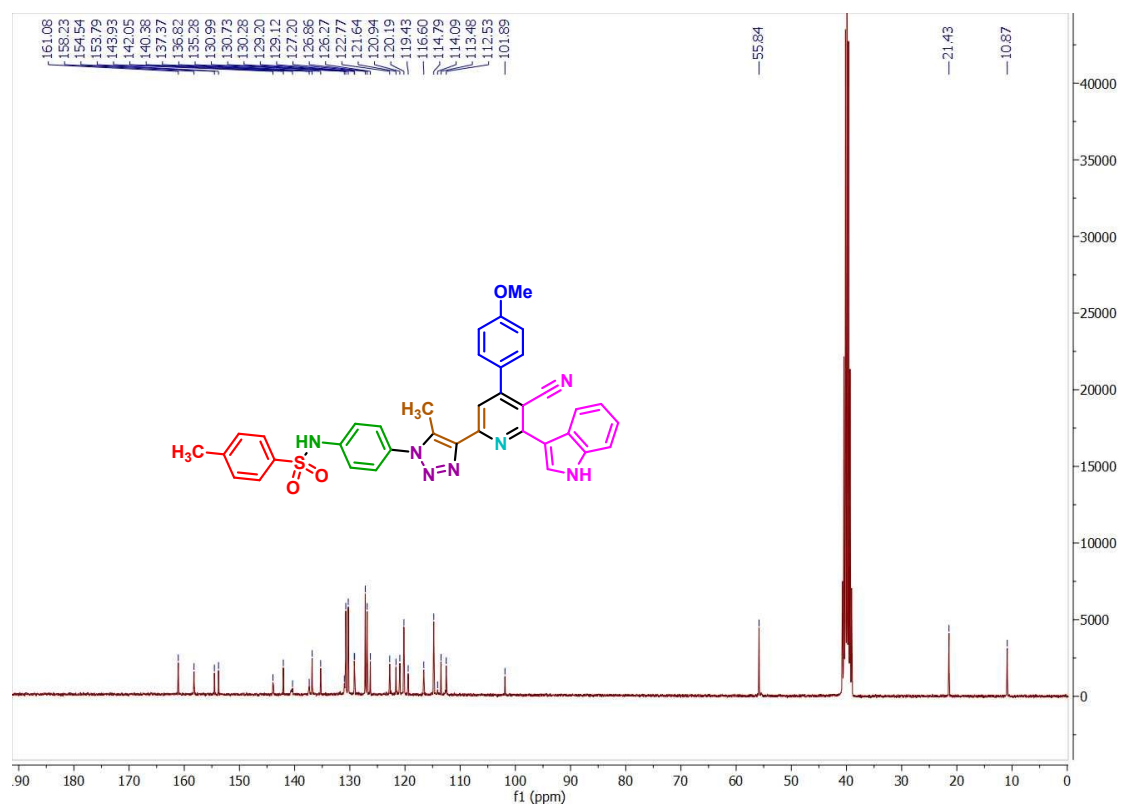
27: FT-IR spectrum of *N*-(4-(4-(5-cyano-6-(1*H*-indol-3-yl)-4-(4-methoxyphenyl)pyridin-2-yl)-5-methyl-1*H*-1,2,3-triazol-1-yl)phenyl)-4-methylbenzenesulfonamide (1f).



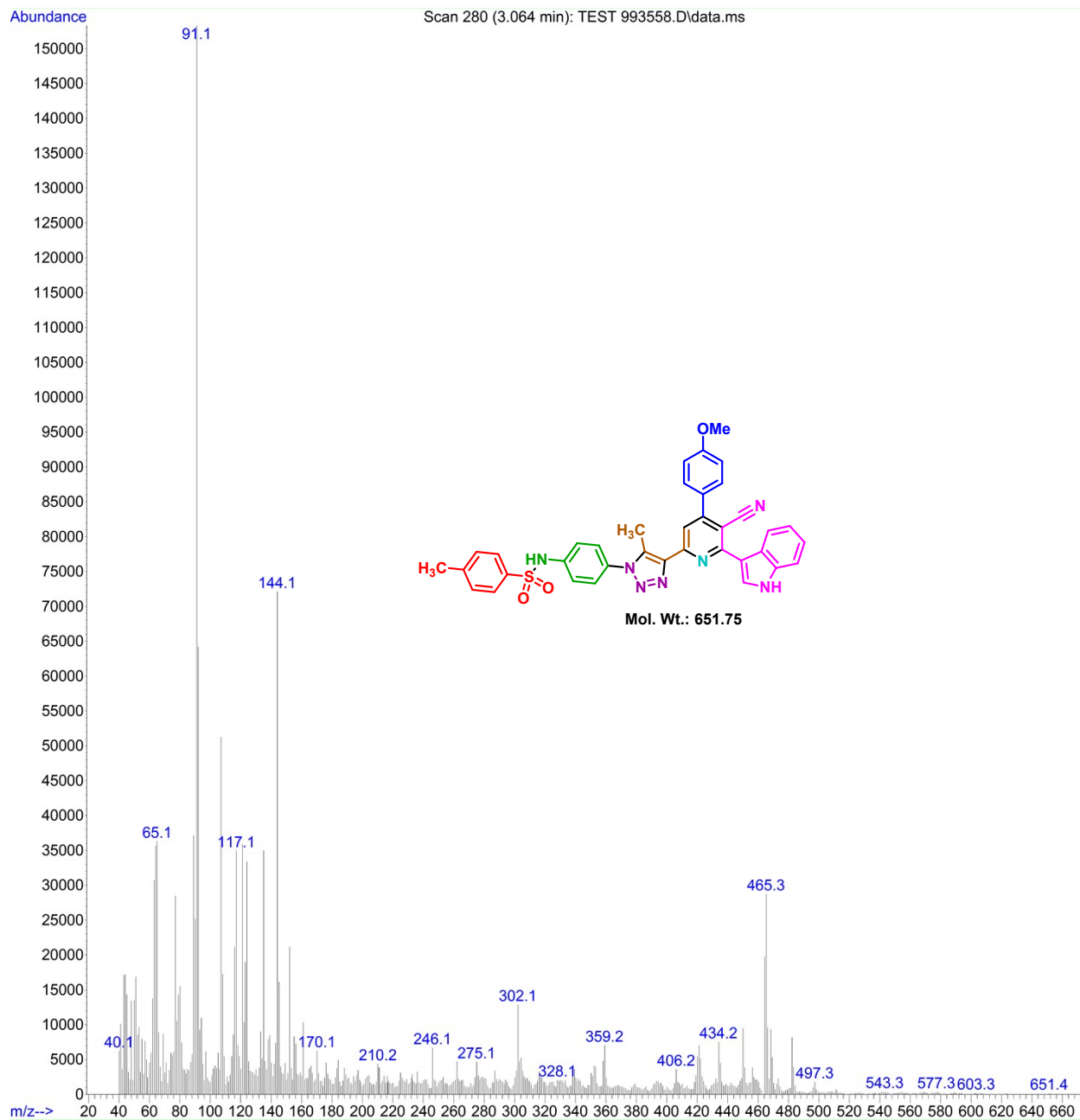
28: ¹H NMR spectrum of *N*-(4-(4-(5-cyano-6-(1*H*-indol-3-yl)-4-(4-methoxyphenyl)pyridin-2-yl)-5-methyl-1*H*-1,2,3-triazol-1-yl)phenyl)-4-methylbenzenesulfonamide (1f).



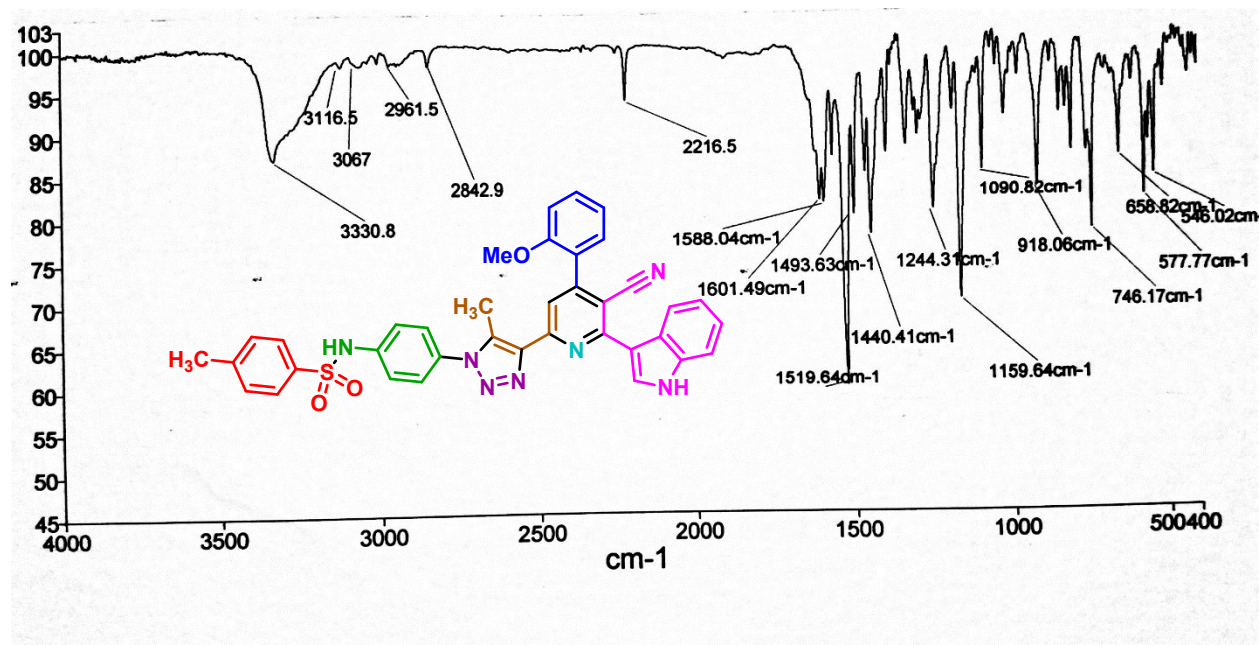
29: ^{13}C NMR spectrum of *N*-(4-(4-(5-cyano-6-(1*H*-indol-3-yl)-4-(4-methoxyphenyl)pyridin-2-yl)-5-methyl-1*H*-1,2,3-triazol-1-yl)phenyl)-4-methylbenzenesulfonamide (1f).



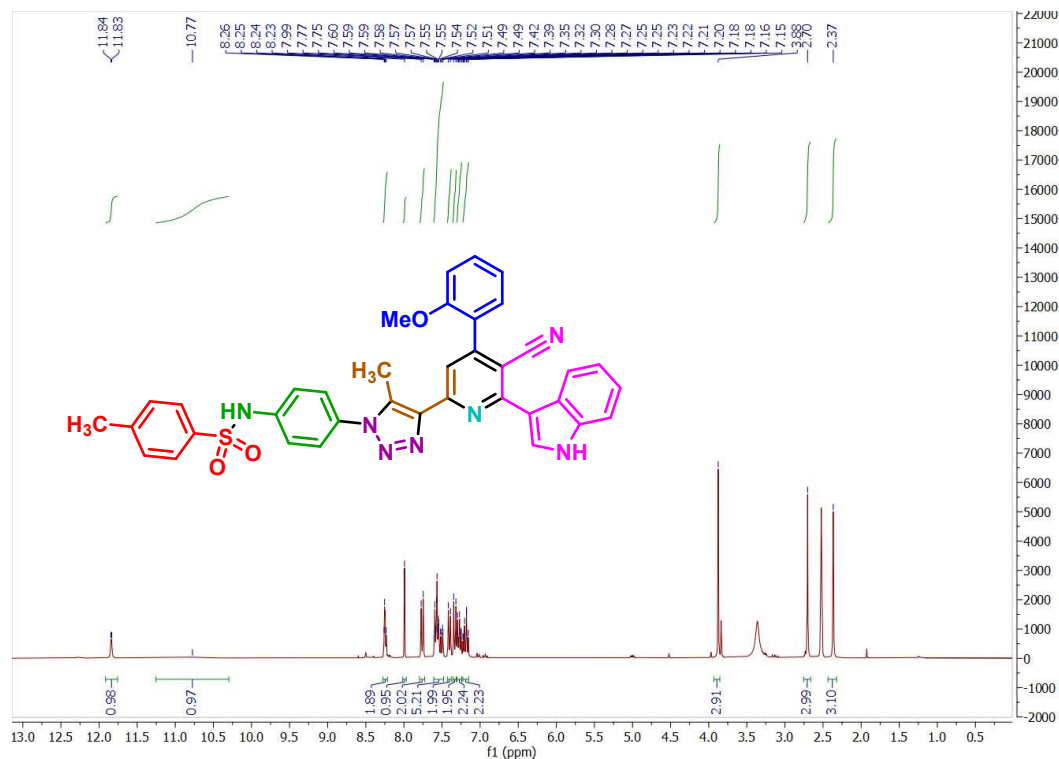
30: Mass spectrum of *N*-(4-(4-(5-cyano-6-(1*H*-indol-3-yl)-4-(4-methoxyphenyl)pyridin-2-yl)-5-methyl-1*H*-1,2,3-triazol-1-yl)phenyl)-4-methylbenzenesulfonamide (1f).



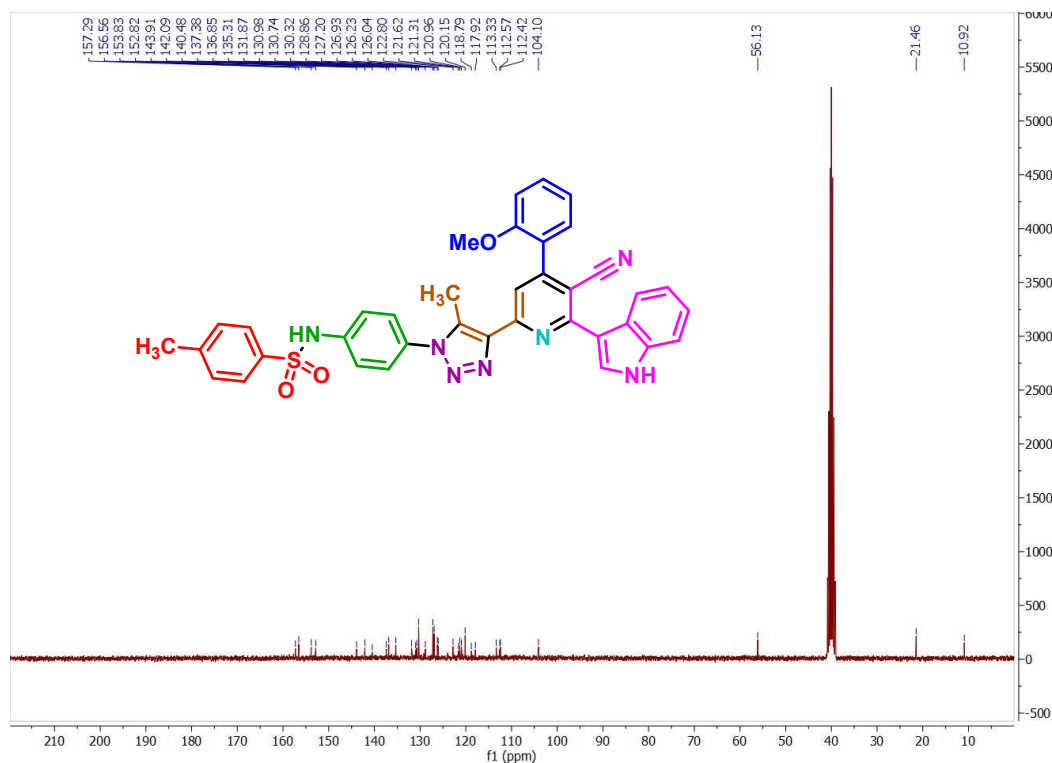
31: FT-IR spectrum of *N*-(4-(4-(5-cyano-6-(1*H*-indol-3-yl)-4-(2-methoxyphenyl)pyridin-2-yl)-5-methyl-1*H*-1,2,3-triazol-1-yl)phenyl)-4-methylbenzenesulfonamide (1g).



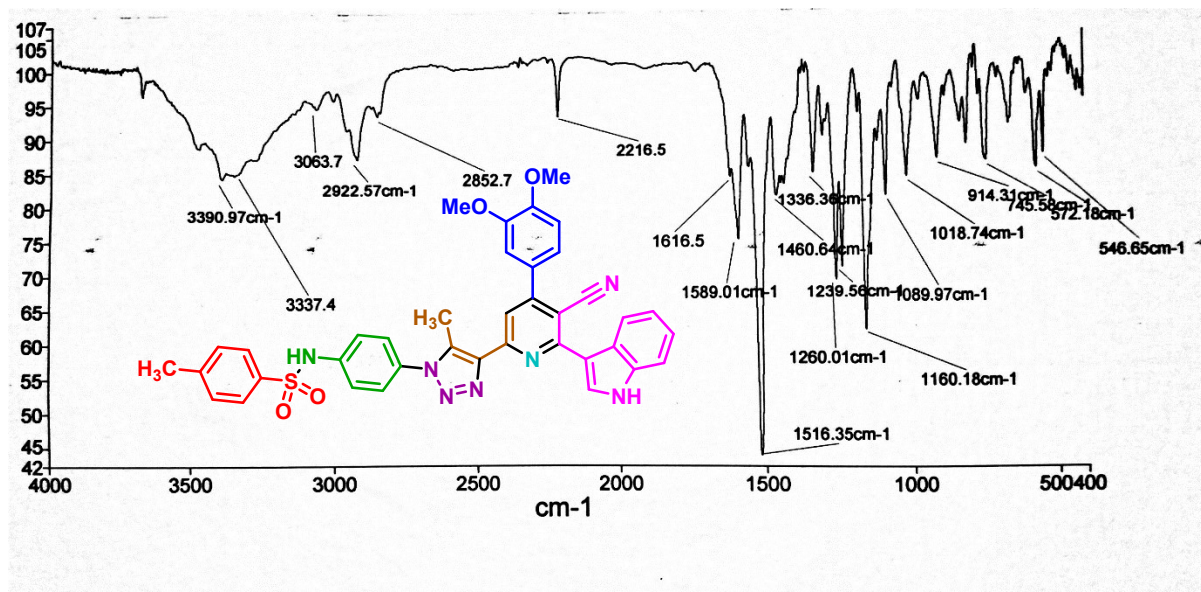
32: ¹H NMR spectrum of *N*-(4-(4-(5-cyano-6-(1*H*-indol-3-yl)-4-(2-methoxyphenyl)pyridin-2-yl)-5-methyl-1*H*-1,2,3-triazol-1-yl)phenyl)-4-methylbenzenesulfonamide (1g).



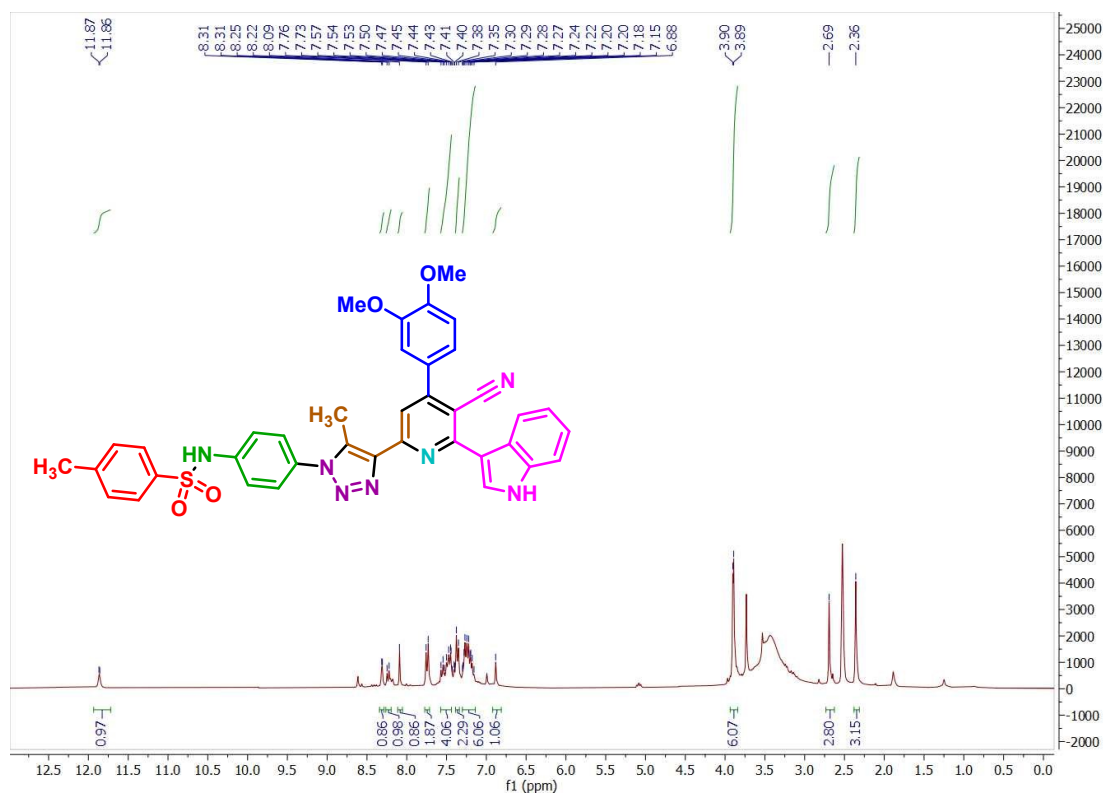
33: ^{13}C NMR spectrum of *N*-(4-(4-(5-cyano-6-(1*H*-indol-3-yl)-4-(2-methoxyphenyl)pyridin-2-yl)-5-methyl-1*H*-1,2,3-triazol-1-yl)phenyl)-4-methylbenzenesulfonamide (1g).



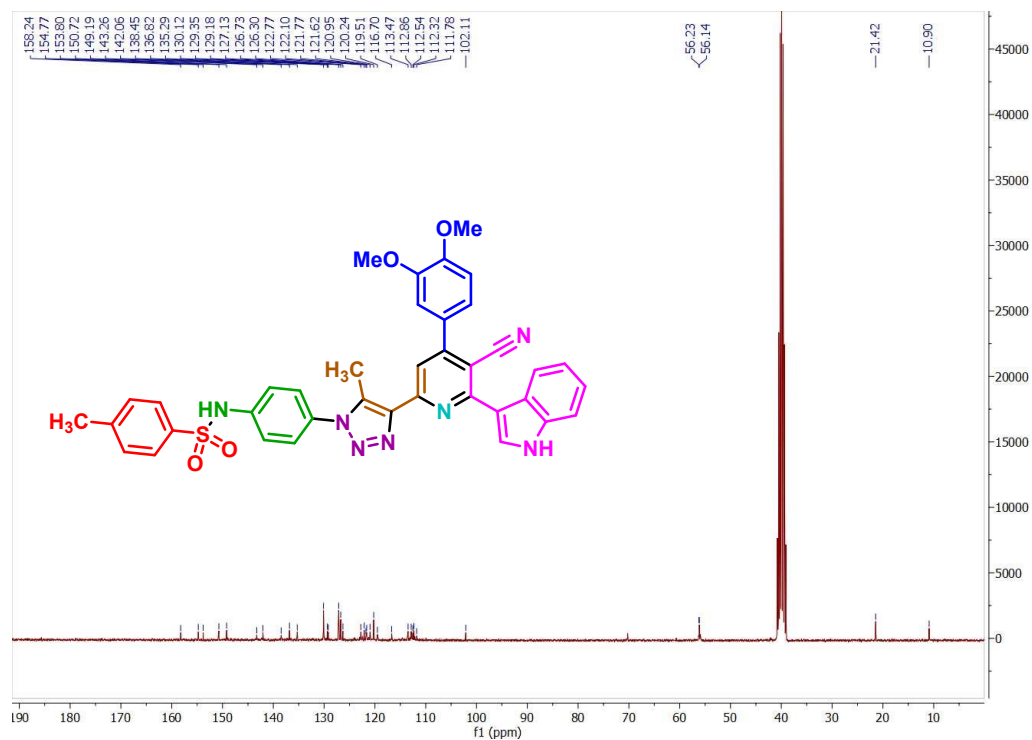
34: FT-IR spectrum of *N*-(4-(4-(5-cyano-4-(3,4-dimethoxyphenyl)-6-(1*H*-indol-3-yl)pyridin-2-yl)-5-methyl-1*H*-1,2,3-triazol-1-yl)phenyl)-4-methylbenzenesulfonamide (1h).



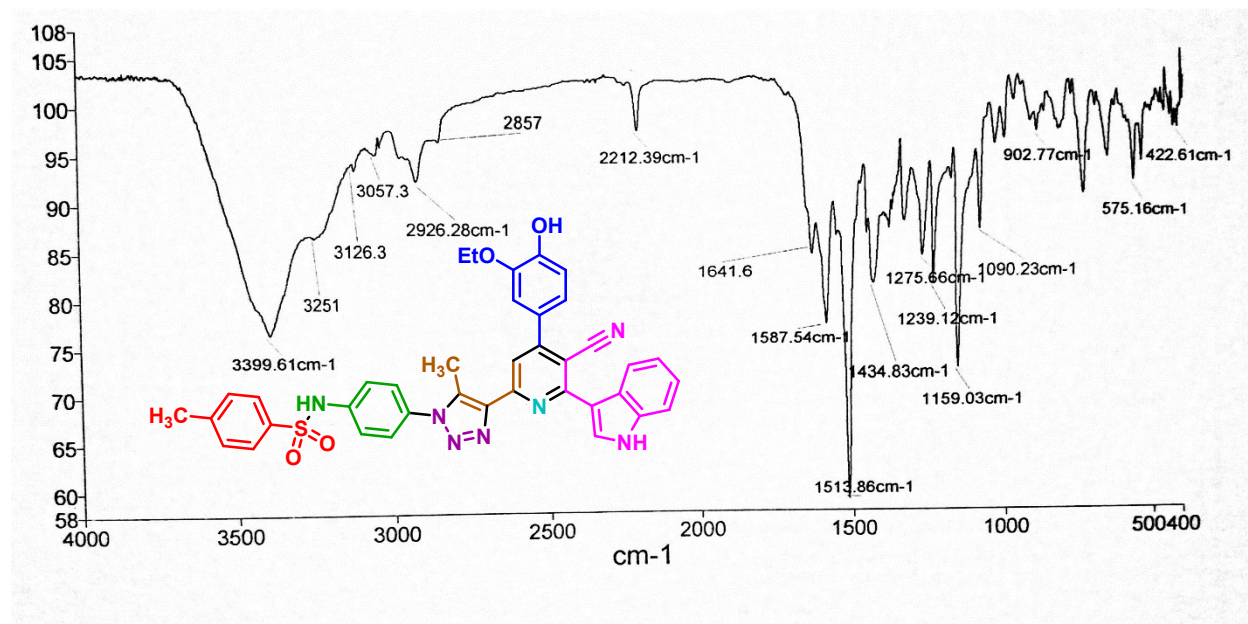
35: ^1H NMR spectrum of *N*-(4-(4-(5-cyano-4-(3,4-dimethoxyphenyl)-6-(1*H*-indol-3-yl)pyridin-2-yl)-5-methyl-1*H*-1,2,3-triazol-1-yl)phenyl)-4-methylbenzenesulfonamide (1h).



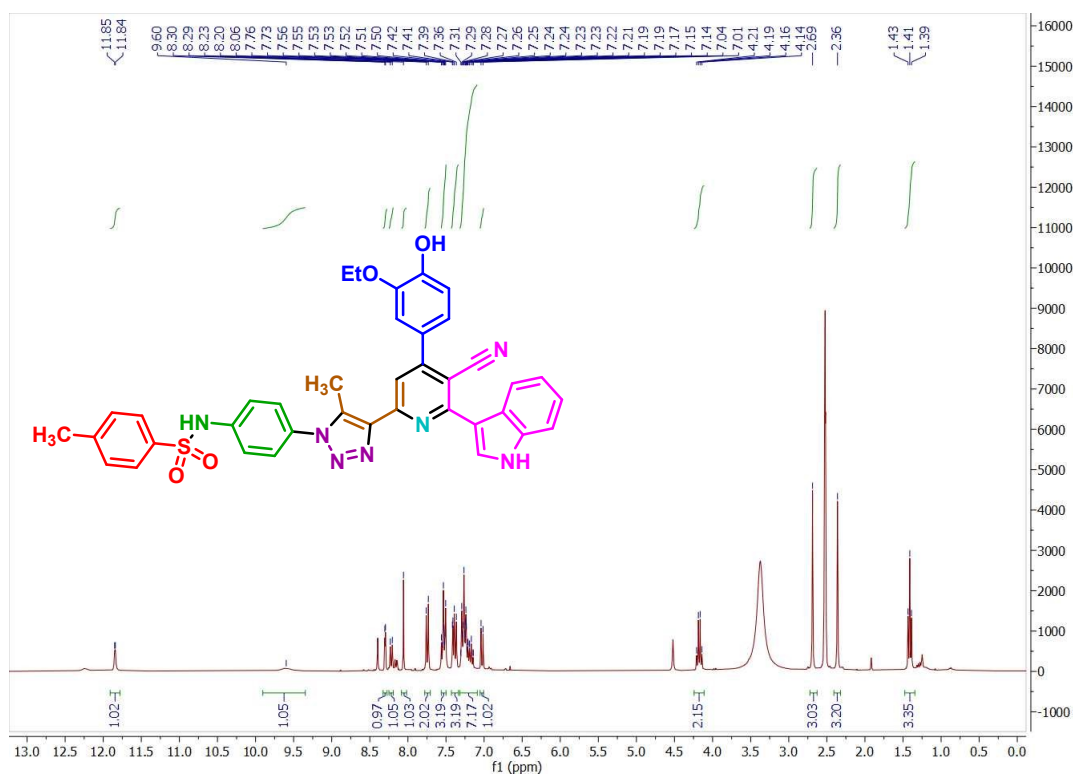
36: ^{13}C NMR spectrum of *N*-(4-(4-(5-cyano-4-(3,4-dimethoxyphenyl)-6-(1*H*-indol-3-yl)pyridin-2-yl)-5-methyl-1*H*-1,2,3-triazol-1-yl)phenyl)-4-methylbenzenesulfonamide (1h).



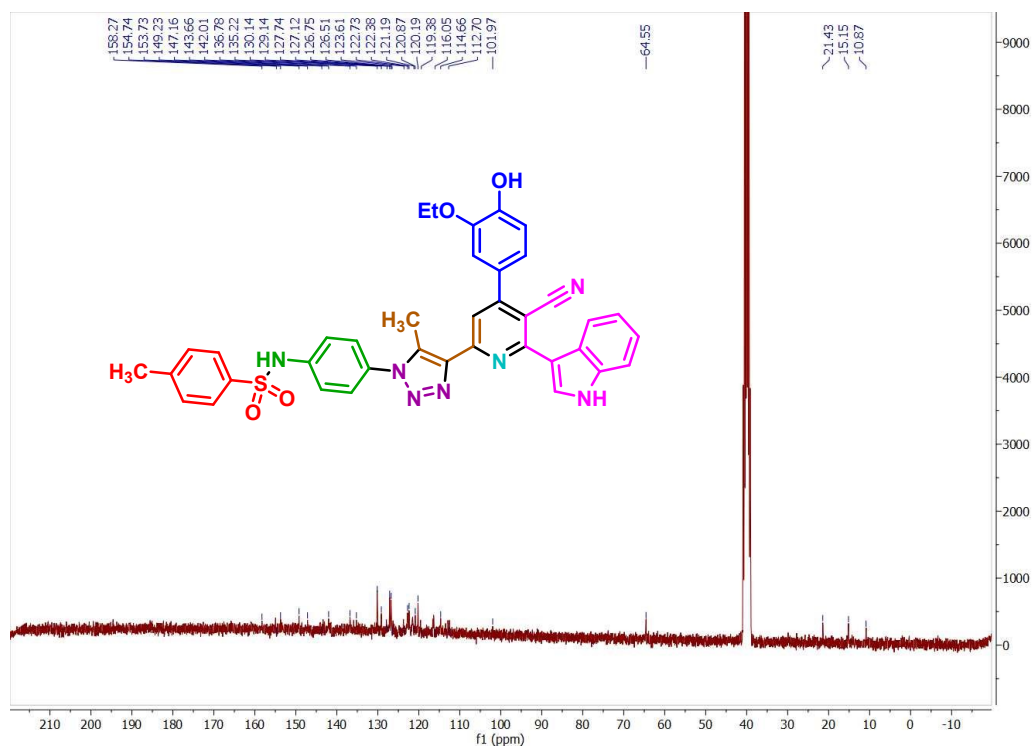
37: FT-IR spectrum of *N*-(4-(4-(5-cyano-4-(3-ethoxy-4-hydroxyphenyl)-6-(1*H*-indol-3-yl)pyridin-2-yl)-5-methyl-1*H*-1,2,3-triazol-1-yl)phenyl)-4-methylbenzenesulfonamide (1i).



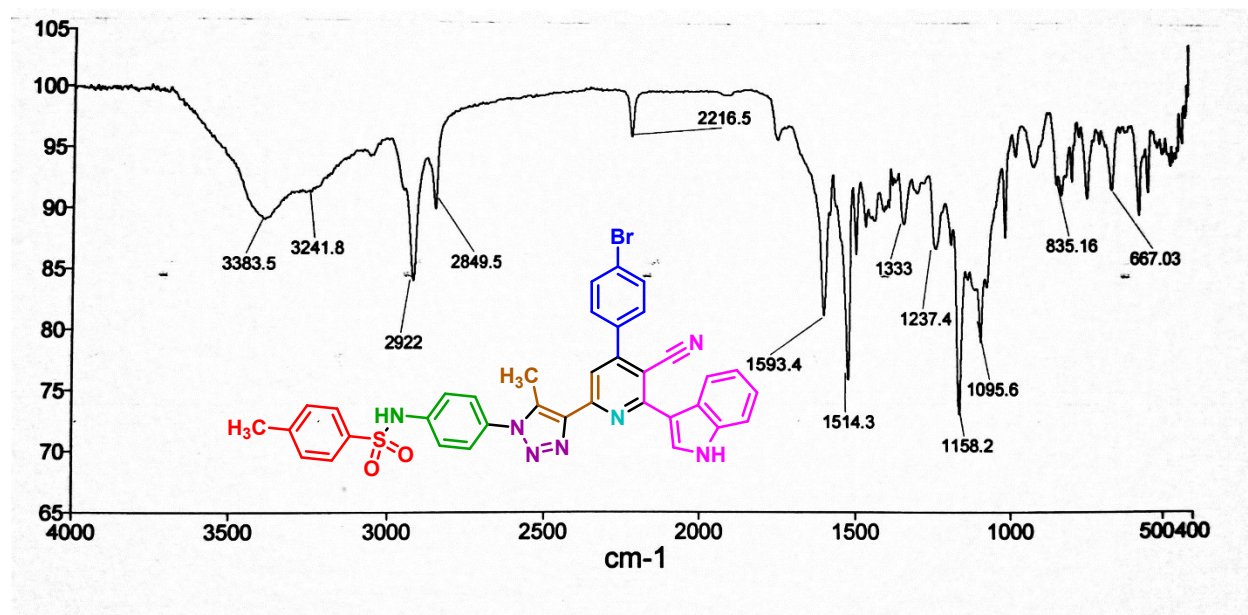
38: ¹H NMR spectrum of *N*-(4-(4-(5-cyano-4-(3-ethoxy-4-hydroxyphenyl)-6-(1*H*-indol-3-yl)pyridin-2-yl)-5-methyl-1*H*-1,2,3-triazol-1-yl)phenyl)-4-methylbenzenesulfonamide (1i).



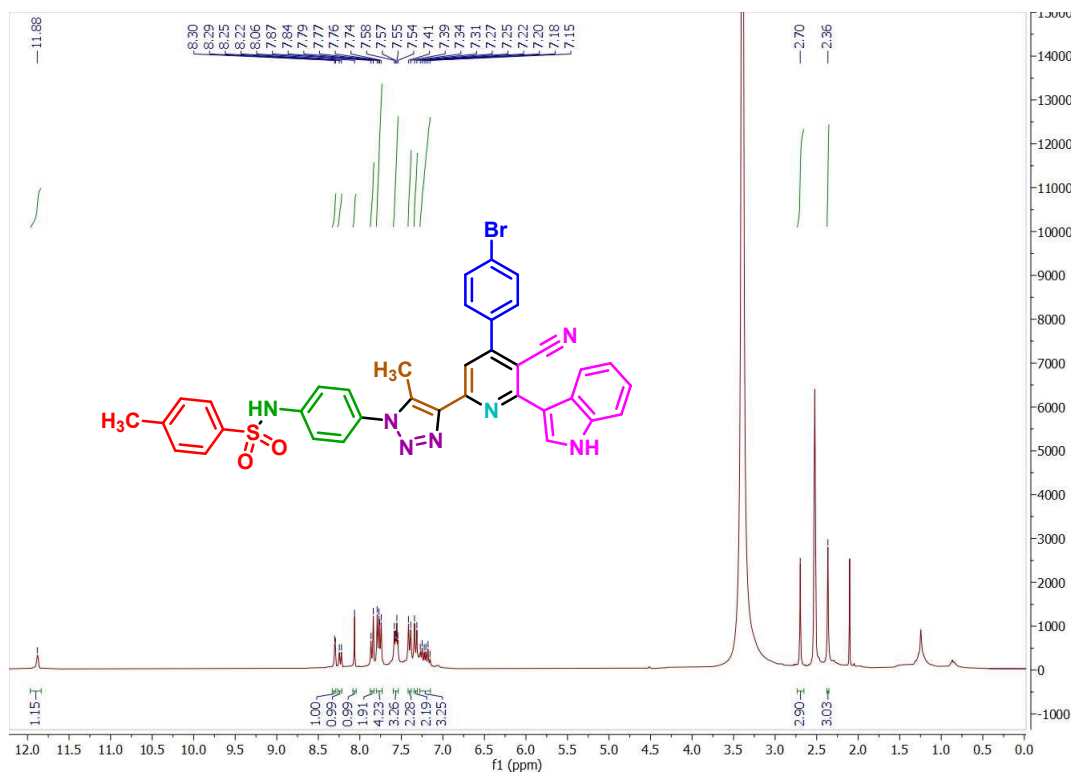
39: ^{13}C NMR spectrum of *N*-(4-(4-(5-cyano-4-(3-ethoxy-4-hydroxyphenyl)-6-(1*H*-indol-3-yl)pyridin-2-yl)-5-methyl-1*H*-1,2,3-triazol-1-yl)phenyl)-4-methylbenzenesulfonamide (1i).



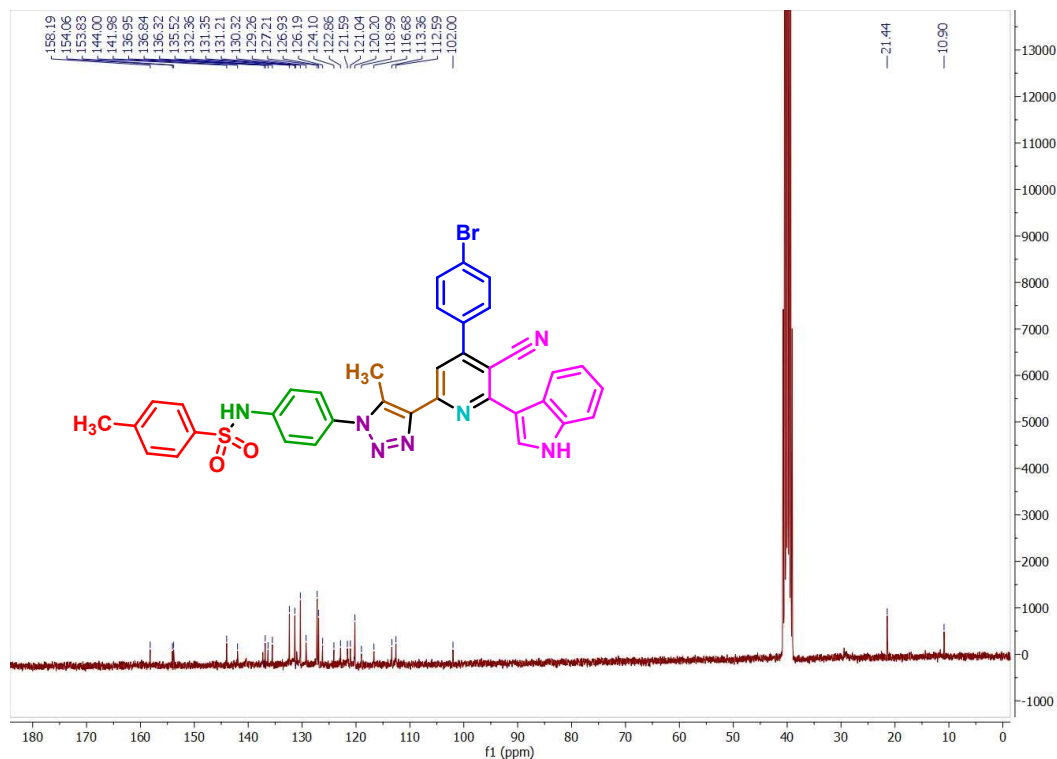
40: FT-IR spectrum of *N*-(4-(4-(4-(4-bromophenyl)-5-cyano-6-(1*H*-indol-3-yl)pyridin-2-yl)-5-methyl-1*H*-1,2,3-triazol-1-yl)phenyl)-4-methylbenzenesulfonamide (1j).



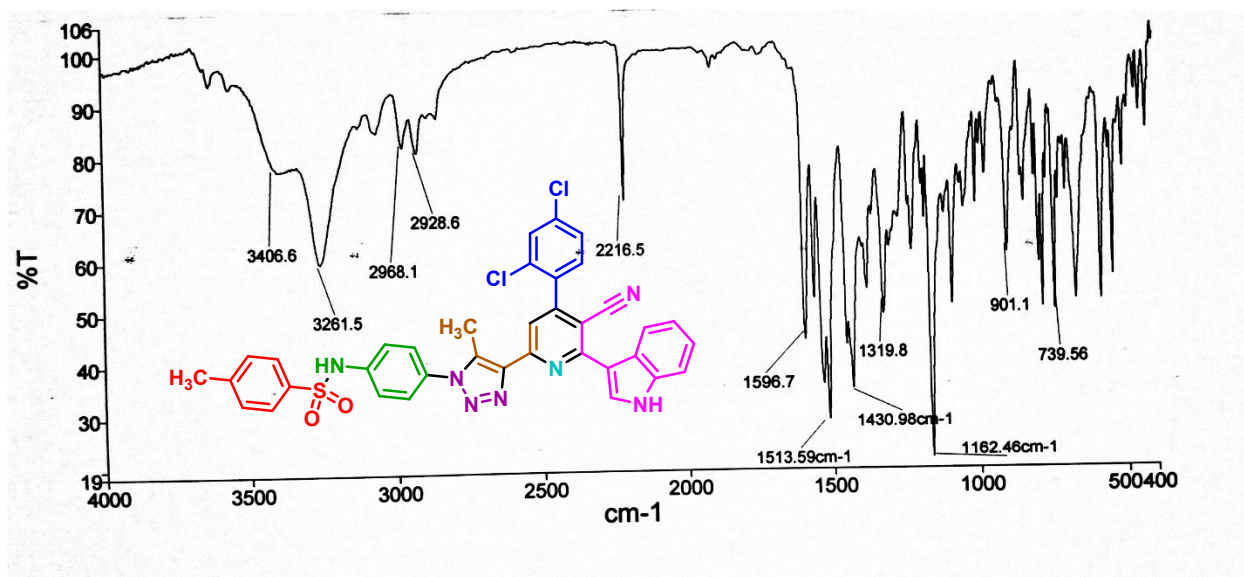
41: ^1H NMR spectrum of *N*-(4-(4-(4-(4-bromophenyl)-5-cyano-6-(1*H*-indol-3-yl)pyridin-2-yl)-5-methyl-1*H*-1,2,3-triazol-1-yl)phenyl)-4-methylbenzenesulfonamide (1j).



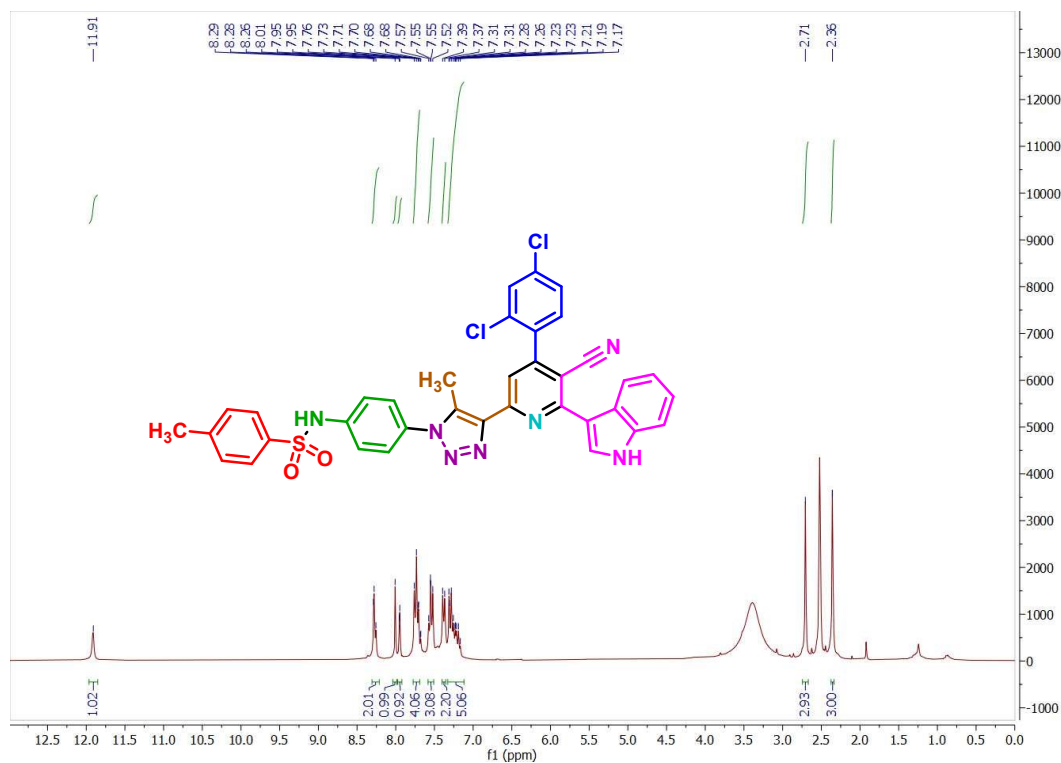
42: ^{13}C NMR spectrum of *N*-(4-(4-(4-(4-bromophenyl)-5-cyano-6-(1*H*-indol-3-yl)pyridin-2-yl)-5-methyl-1*H*-1,2,3-triazol-1-yl)phenyl)-4-methylbenzenesulfonamide (1j).



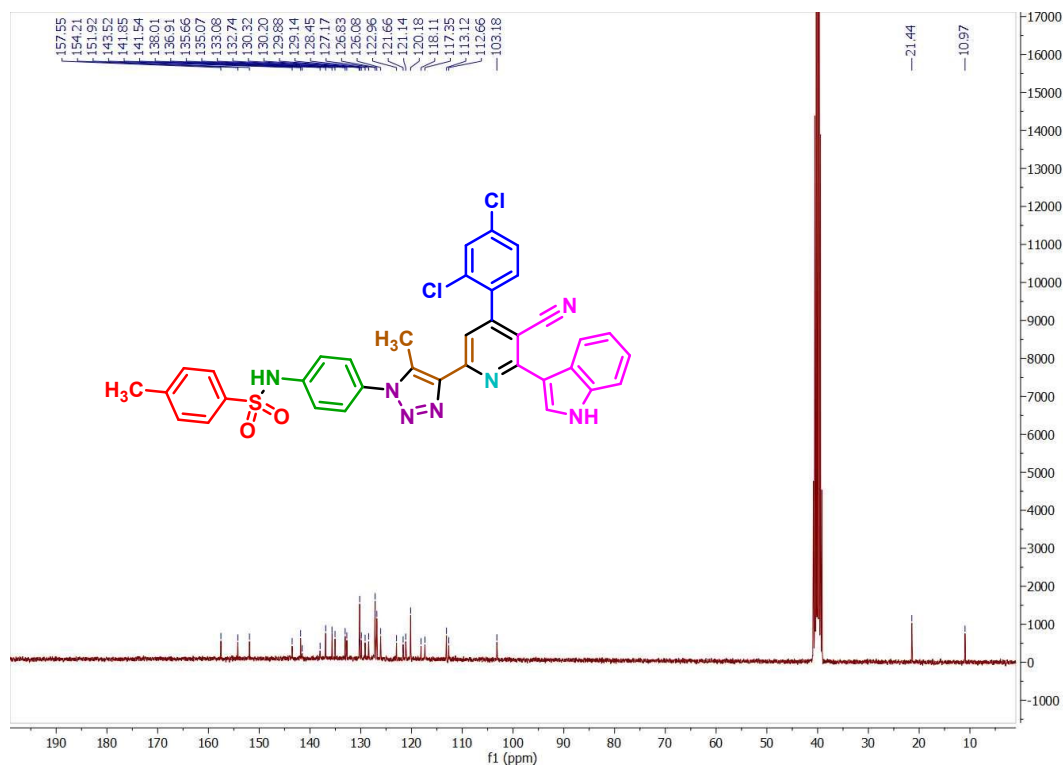
43: FT-IR spectrum of *N*-(4-(4-(5-cyano-4-(2,4-dichlorophenyl)-6-(1*H*-indol-3-yl)pyridin-2-yl)-5-methyl-1*H*-1,2,3-triazol-1-yl)phenyl)-4-methylbenzenesulfonamide (1k).



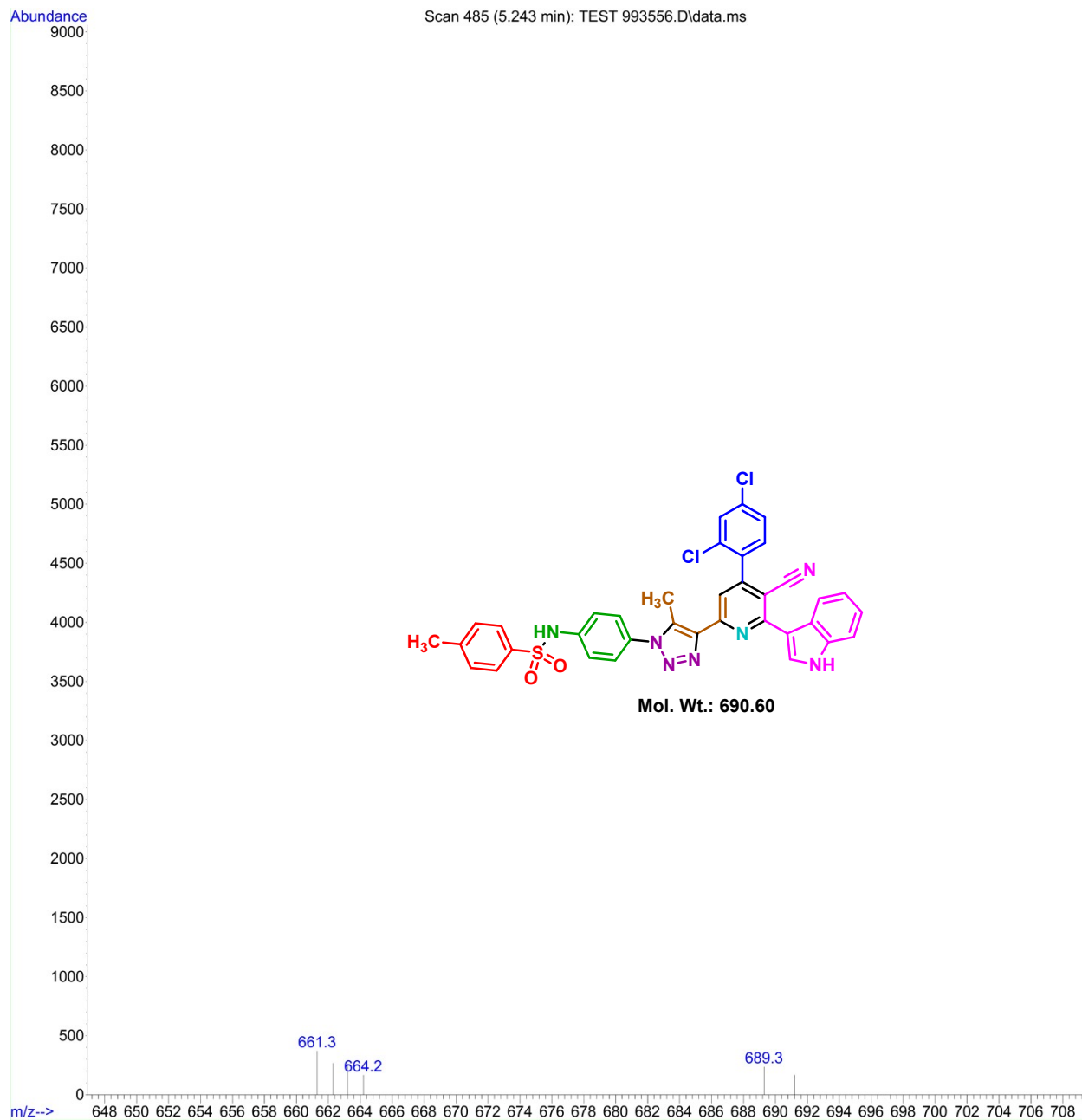
44: ¹H NMR spectrum of *N*-(4-(4-(5-cyano-4-(2,4-dichlorophenyl)-6-(1*H*-indol-3-yl)pyridin-2-yl)-5-methyl-1*H*-1,2,3-triazol-1-yl)phenyl)-4-methylbenzenesulfonamide (1k).



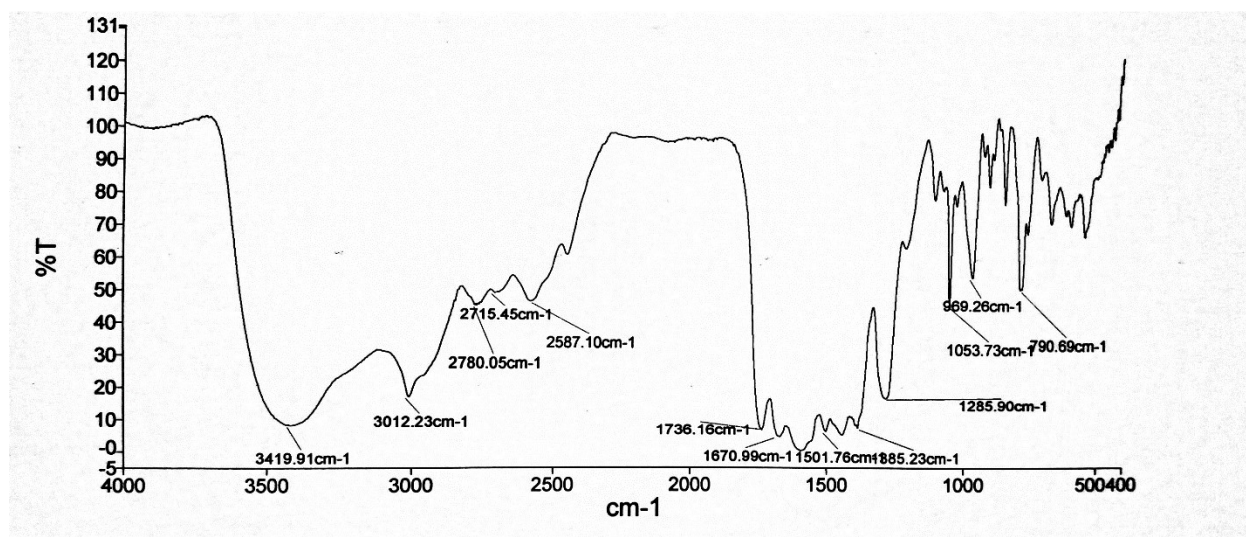
45: ^{13}C NMR spectrum of *N*-(4-(4-(5-cyano-4-(2,4-dichlorophenyl)-6-(1*H*-indol-3-yl)pyridin-2-yl)-5-methyl-1*H*-1,2,3-triazol-1-yl)phenyl)-4-methylbenzenesulfonamide (1k).



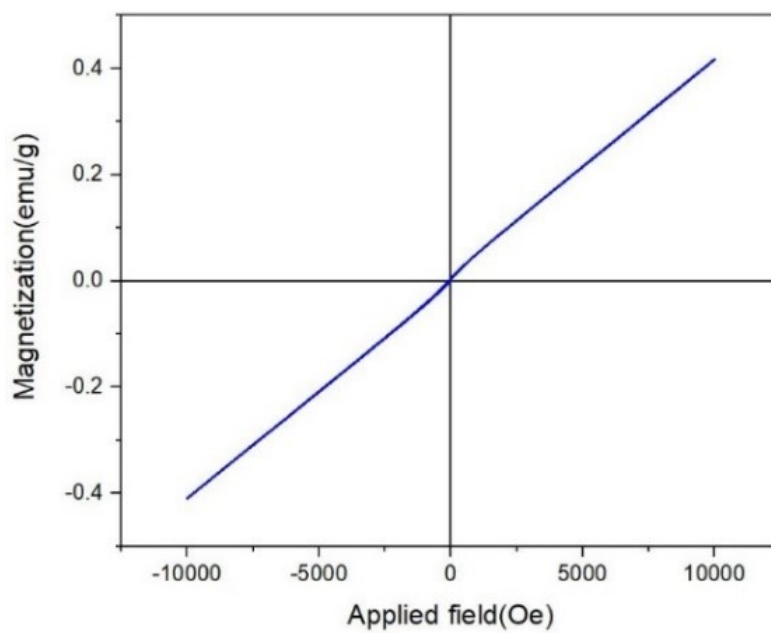
46: Mass spectrum of *N*-(4-(4-(5-cyano-4-(2,4-dichlorophenyl)-6-(1*H*-indol-3-yl)pyridin-2-yl)-5-methyl-1*H*-1,2,3-triazol-1-yl)phenyl)-4-methylbenzenesulfonamide (1k).



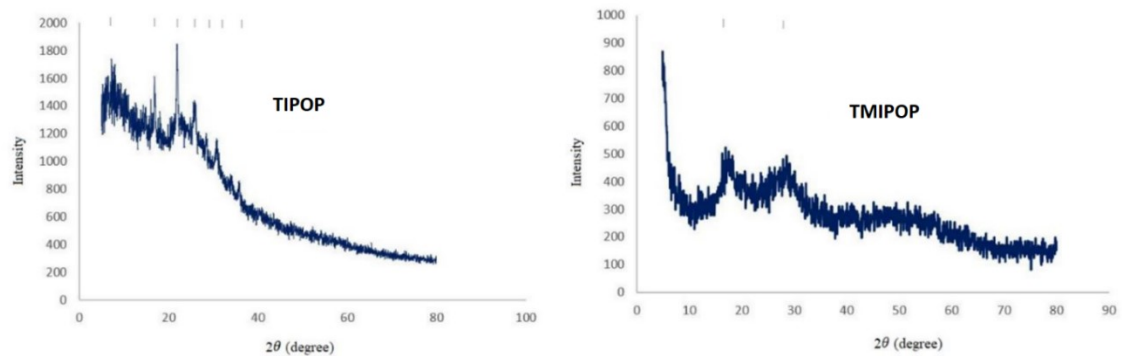
47: IR spectrum of recovered TMIPOP



48: Magnetic susceptibility curve of TMIPOP.



49: XRD patterns of TIPOP and TMIPOP.



50: TG/DTG curves of TMIPOP.

