

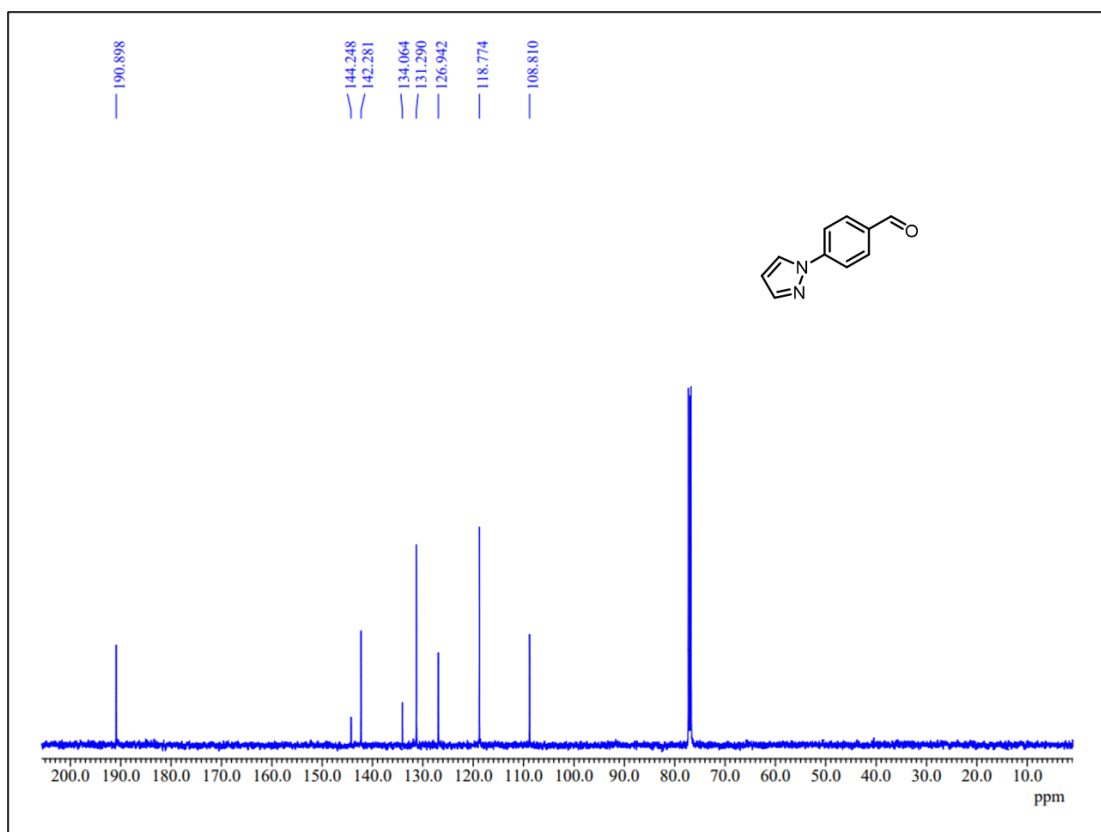
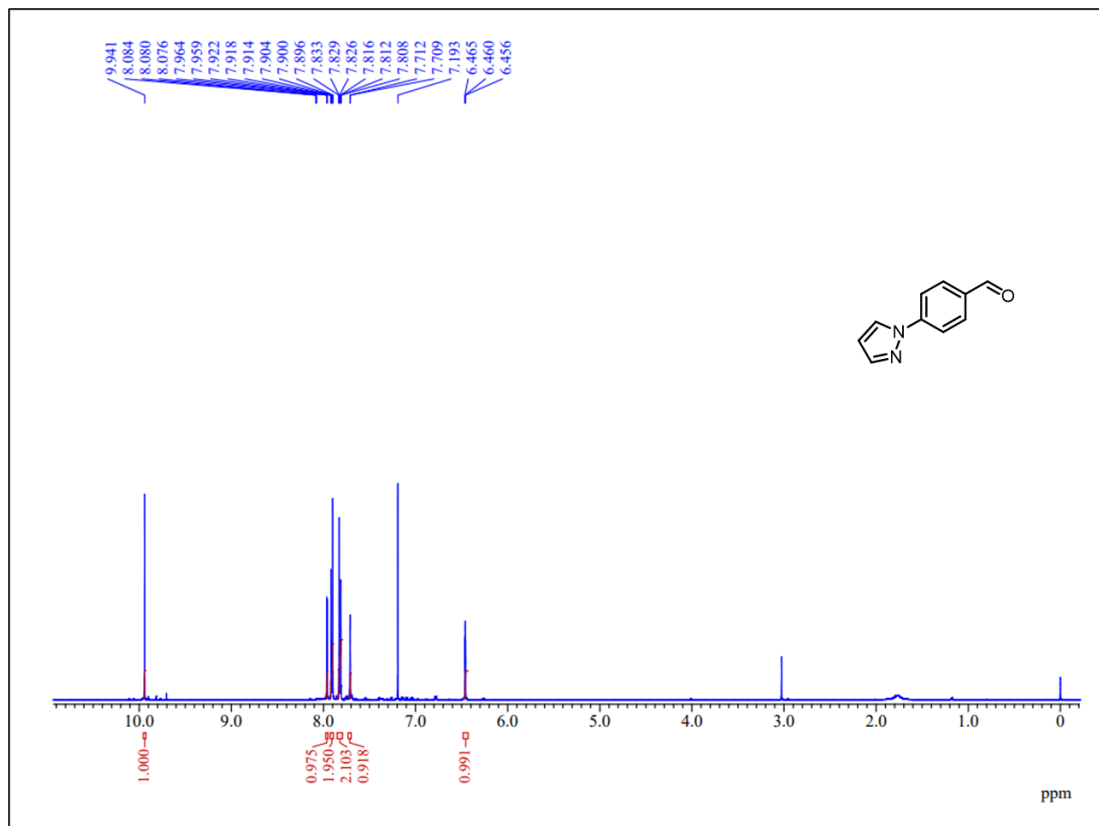
## Supporting File

# Novel Fused Pyran Derivatives Induce Apoptosis and Target Cell Cycle Progression in Anticancer Efficacy against Multiple Cell Lines

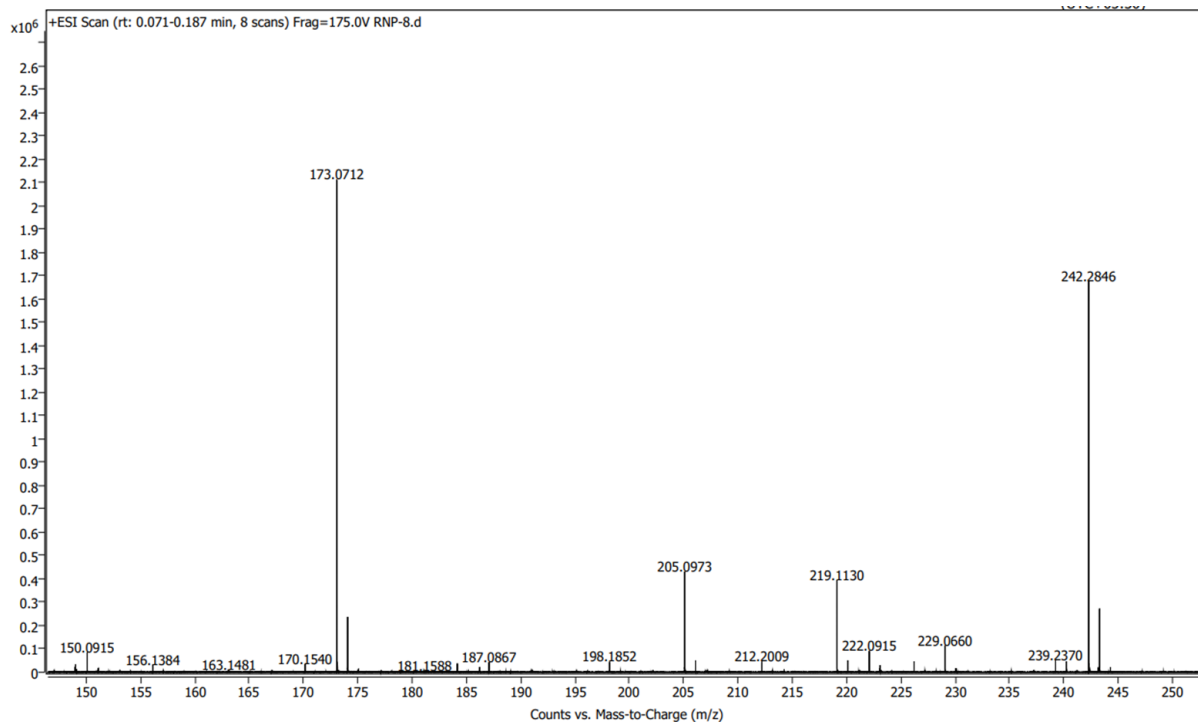
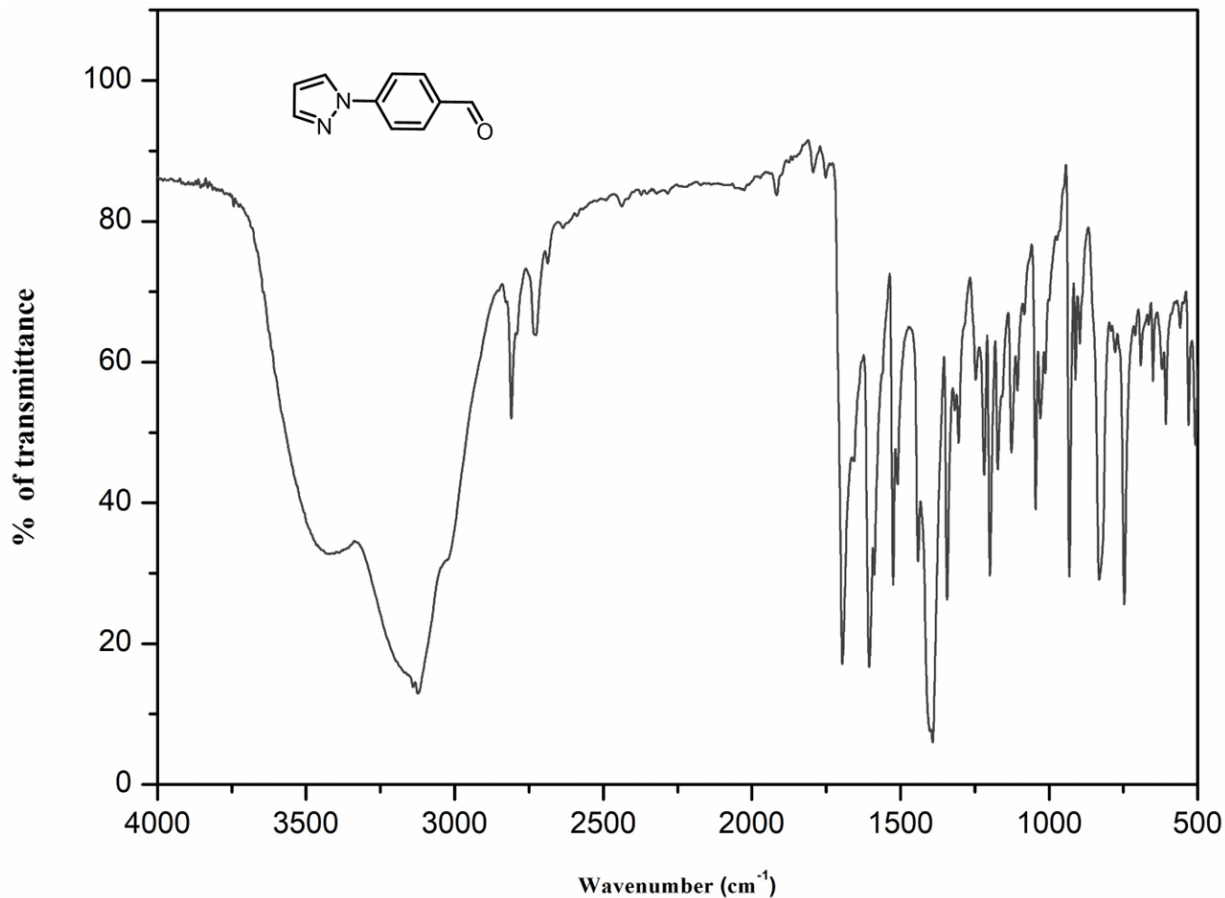
Fabitha K<sup>a</sup>, Anoop Kallingal,<sup>b</sup> Natalia Maciejewska<sup>b</sup>, Arya C G<sup>a</sup>, Munugala Chandrakanth<sup>a</sup>, Neethu Mariam Thomas<sup>a</sup>, Yupeng Li<sup>c</sup>, Ramesh Gondru<sup>d</sup>, Manne Munikumar<sup>d</sup>, Janardhan Banothu<sup>a\*</sup>

<sup>1</sup>H NMR, <sup>13</sup>C NMR, FT-IR, and LC-HRMS spectra of the compounds **3a-e**, **6a-e**, **8a-e**, **10a-e**, **12a-e** and **14a-e**.

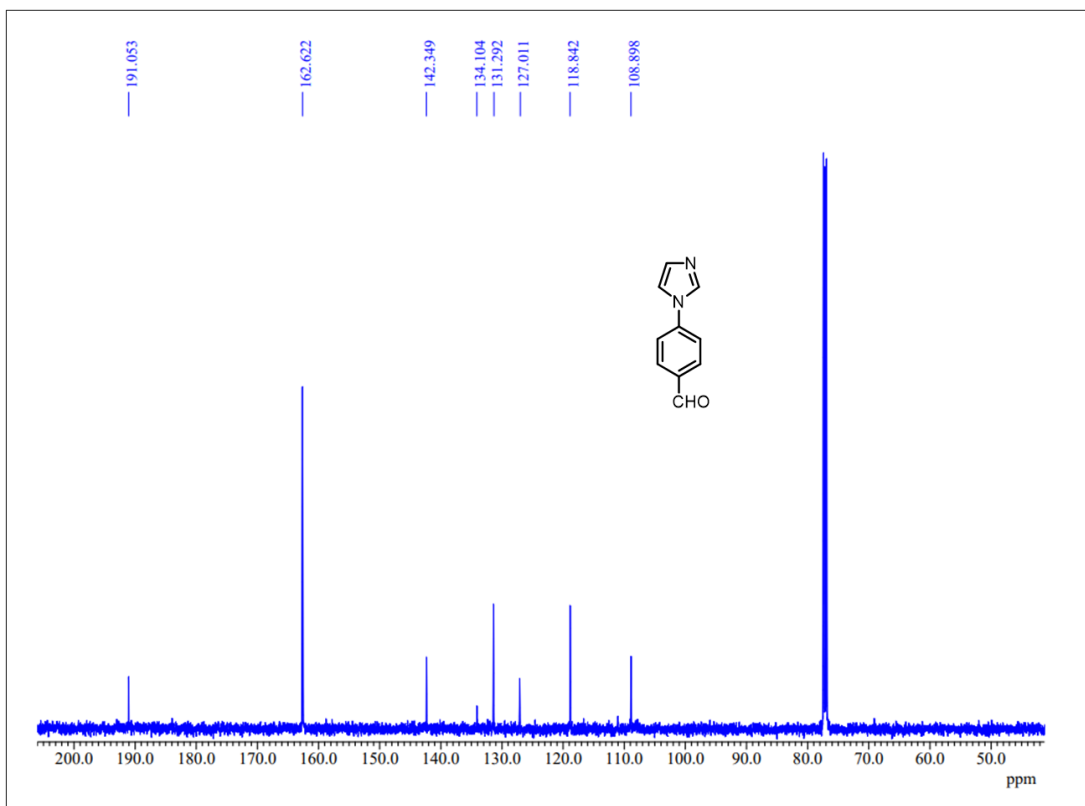
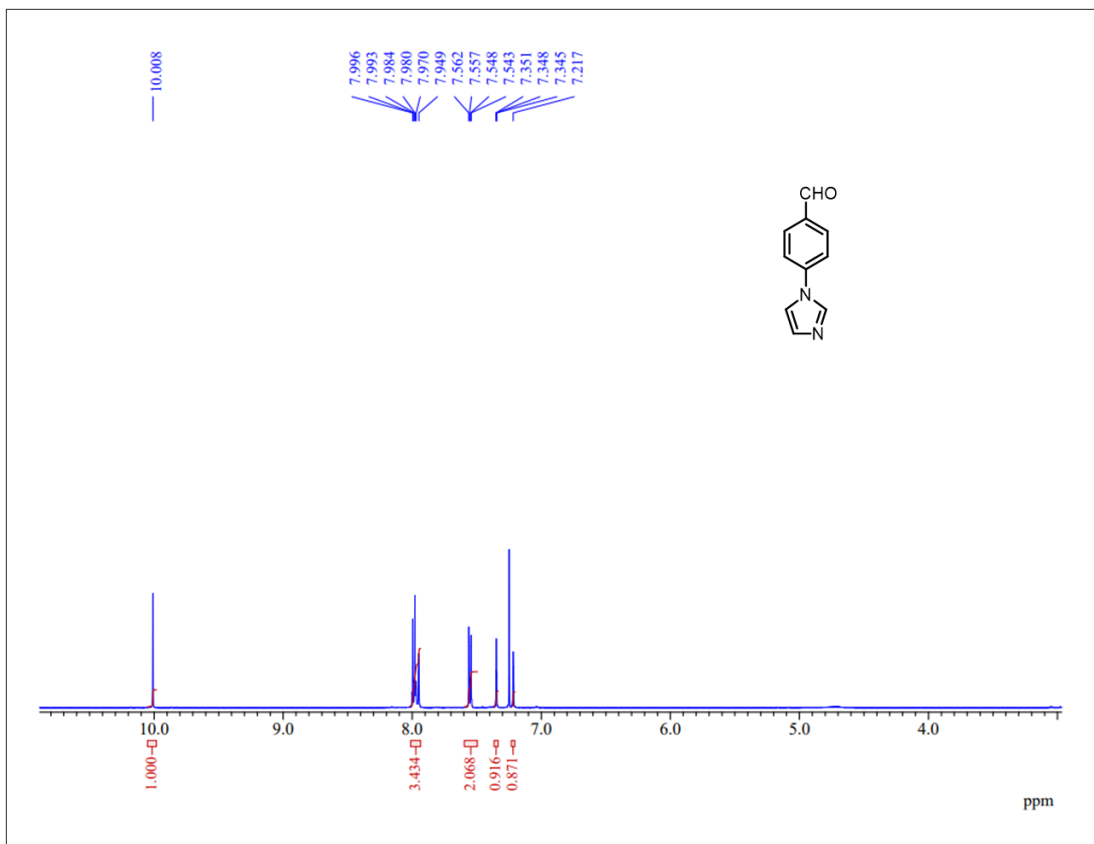
# $^1\text{H}$ NMR and $^{13}\text{C}$ NMR Spectrum of compound **3a**



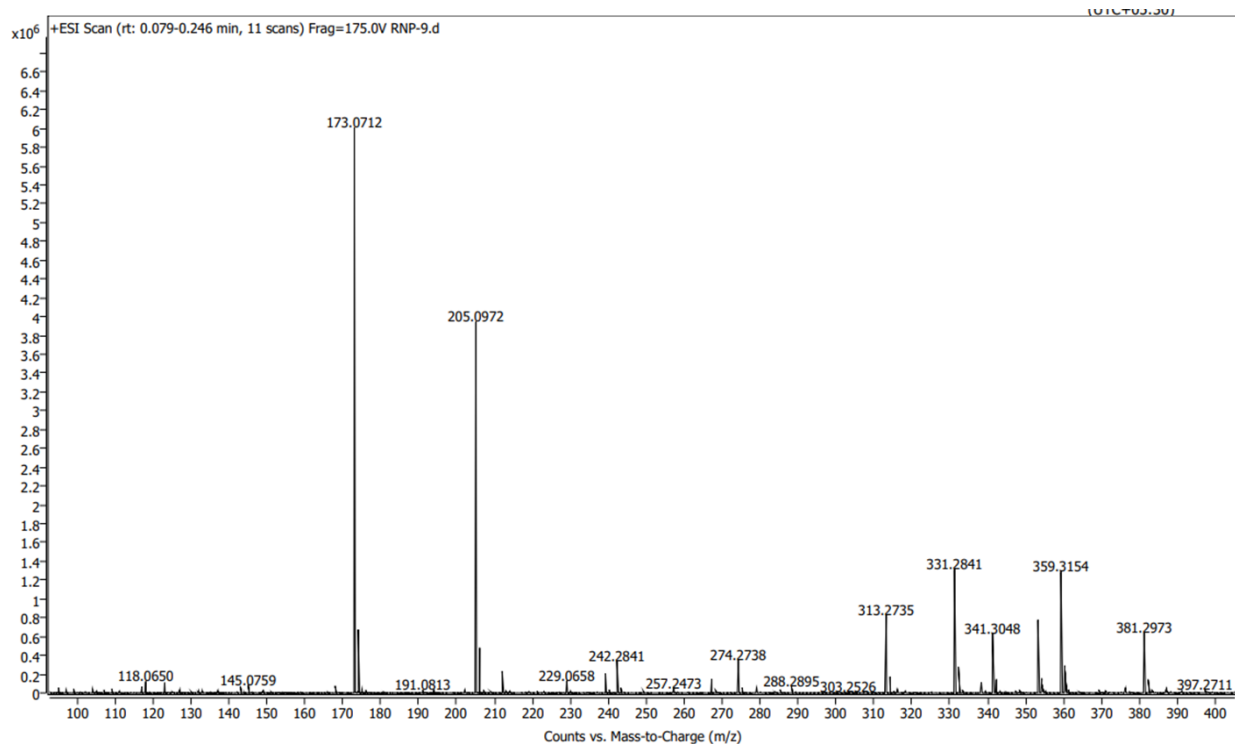
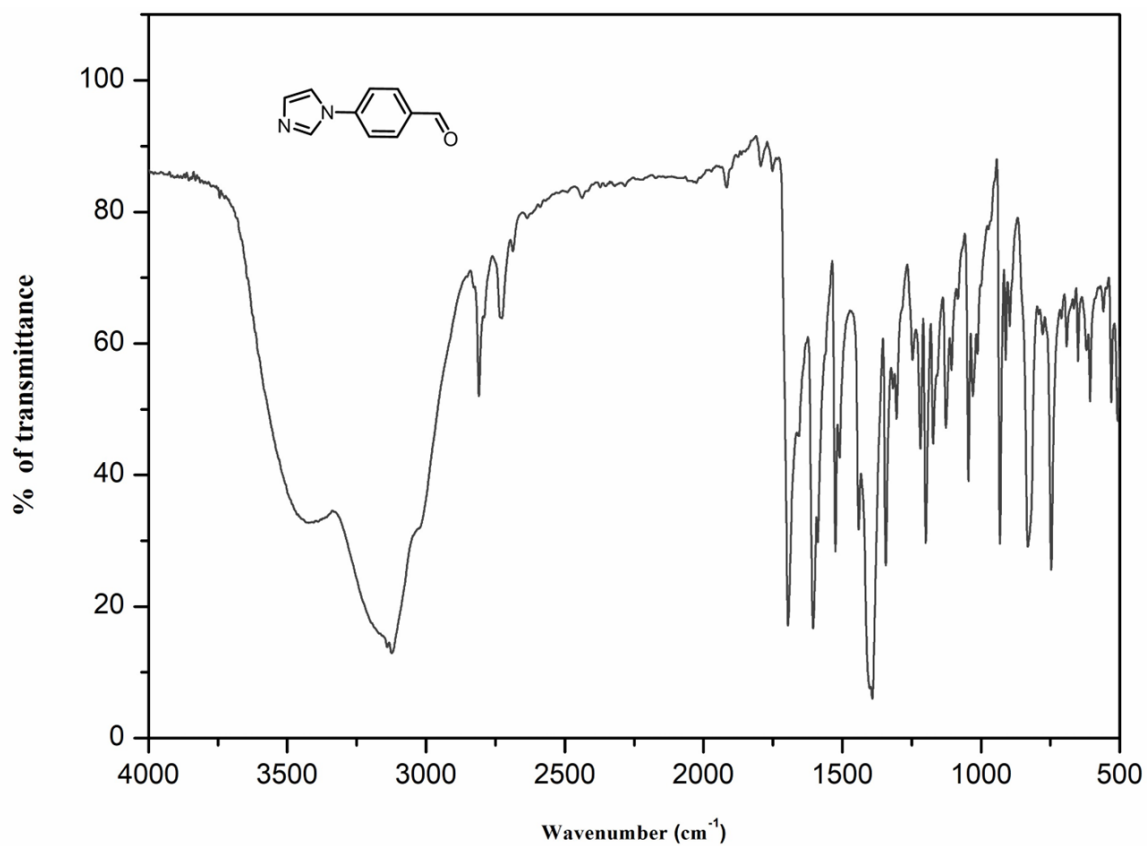
# FTIR and HRMS Spectrum of compound **3a**



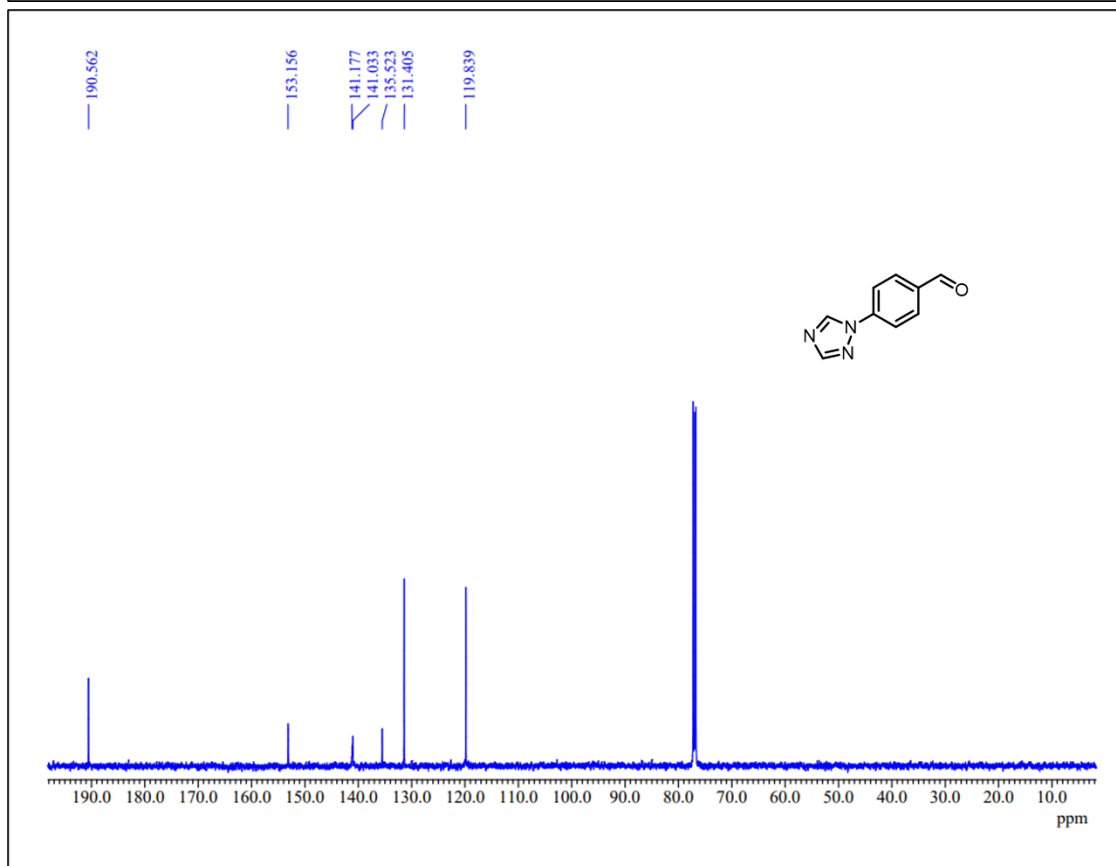
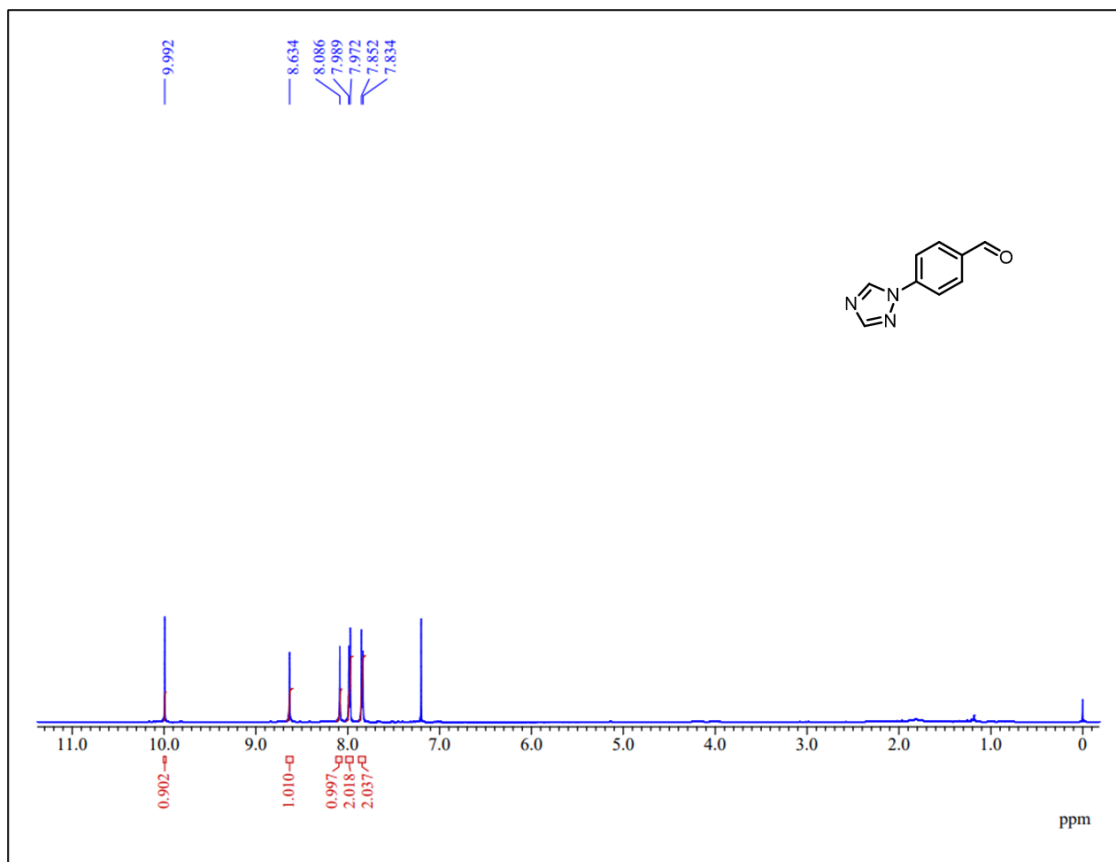
# $^1\text{H}$ NMR and $^{13}\text{C}$ NMR Spectrum of compound **3b**



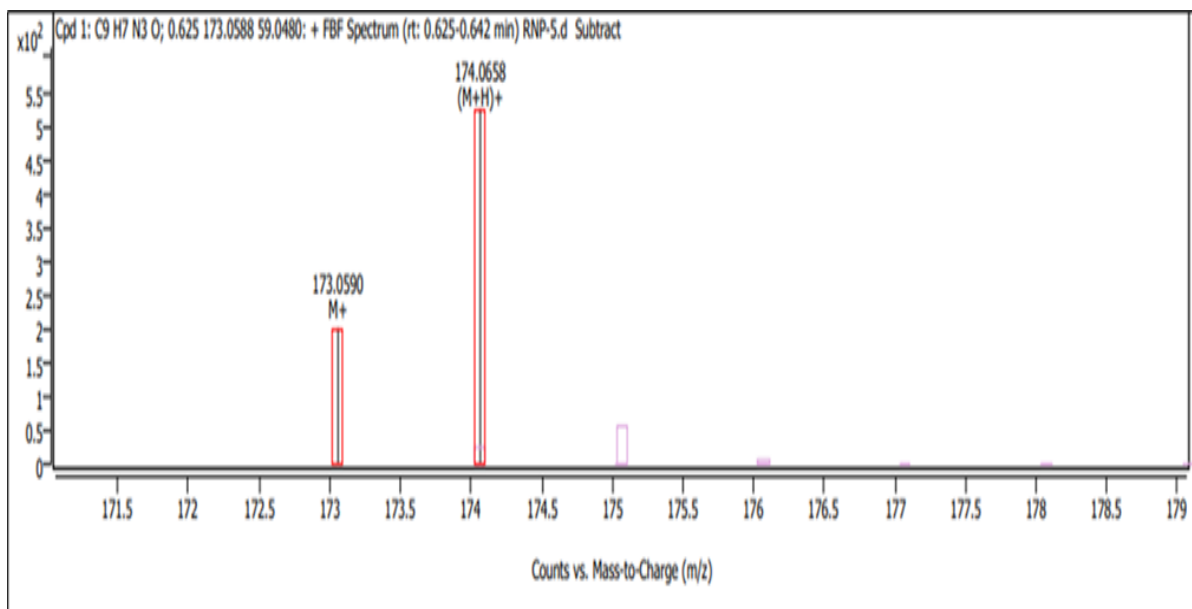
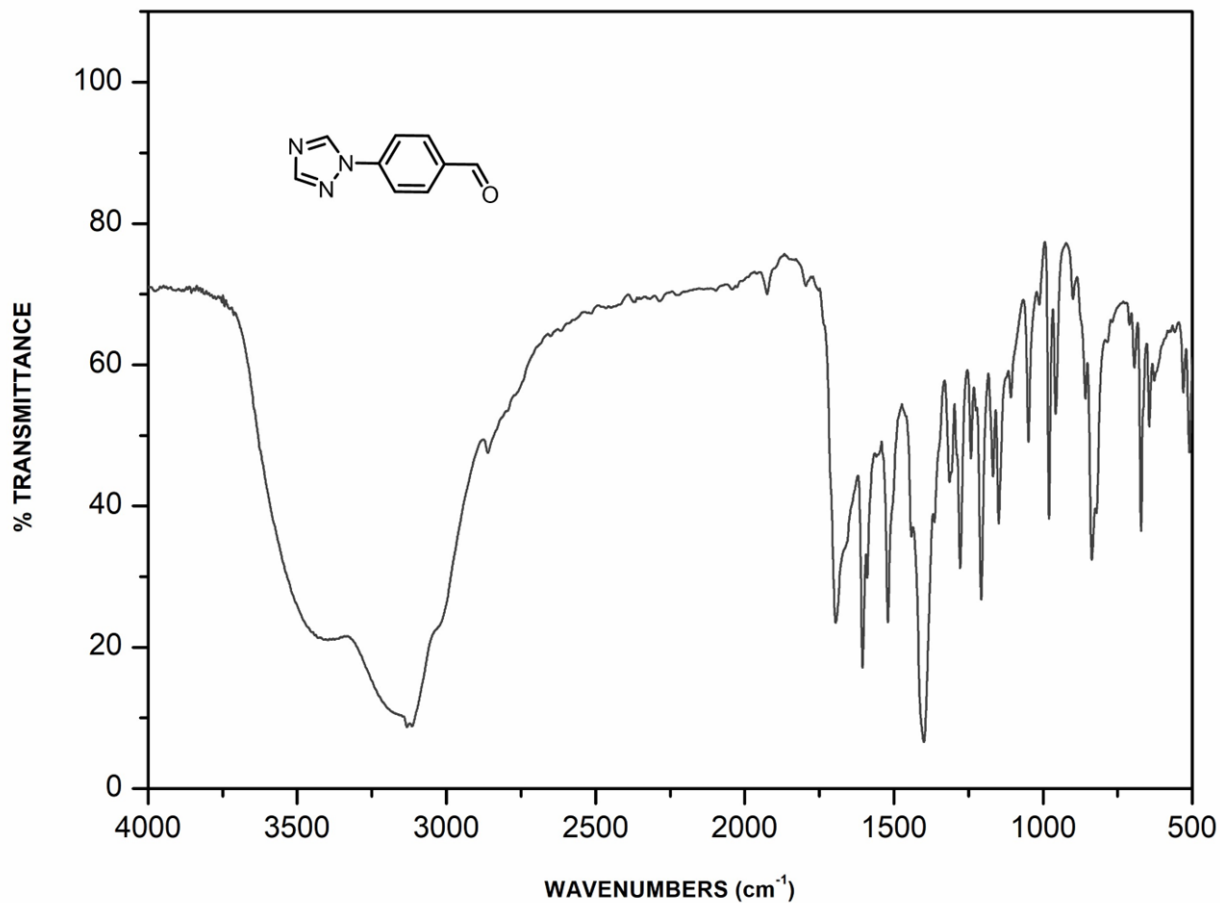
# FTIR and HRMS Spectrum of compound **3b**



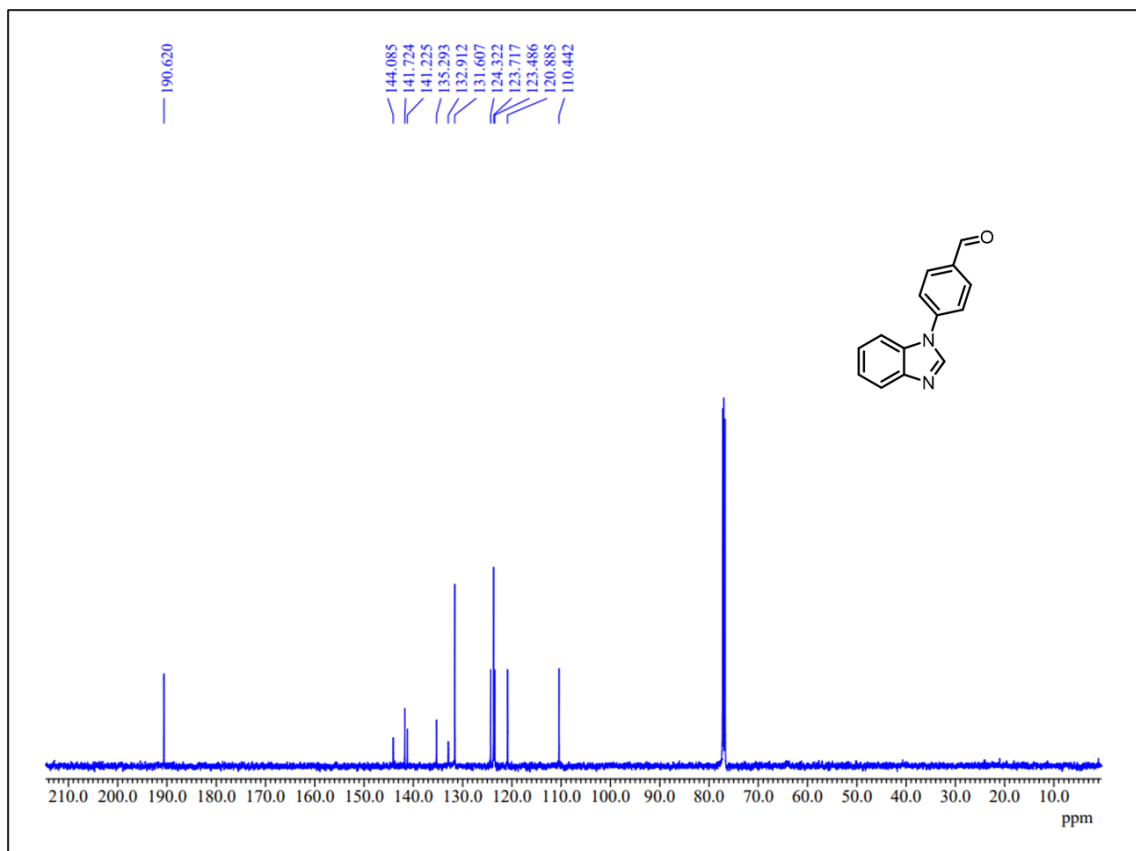
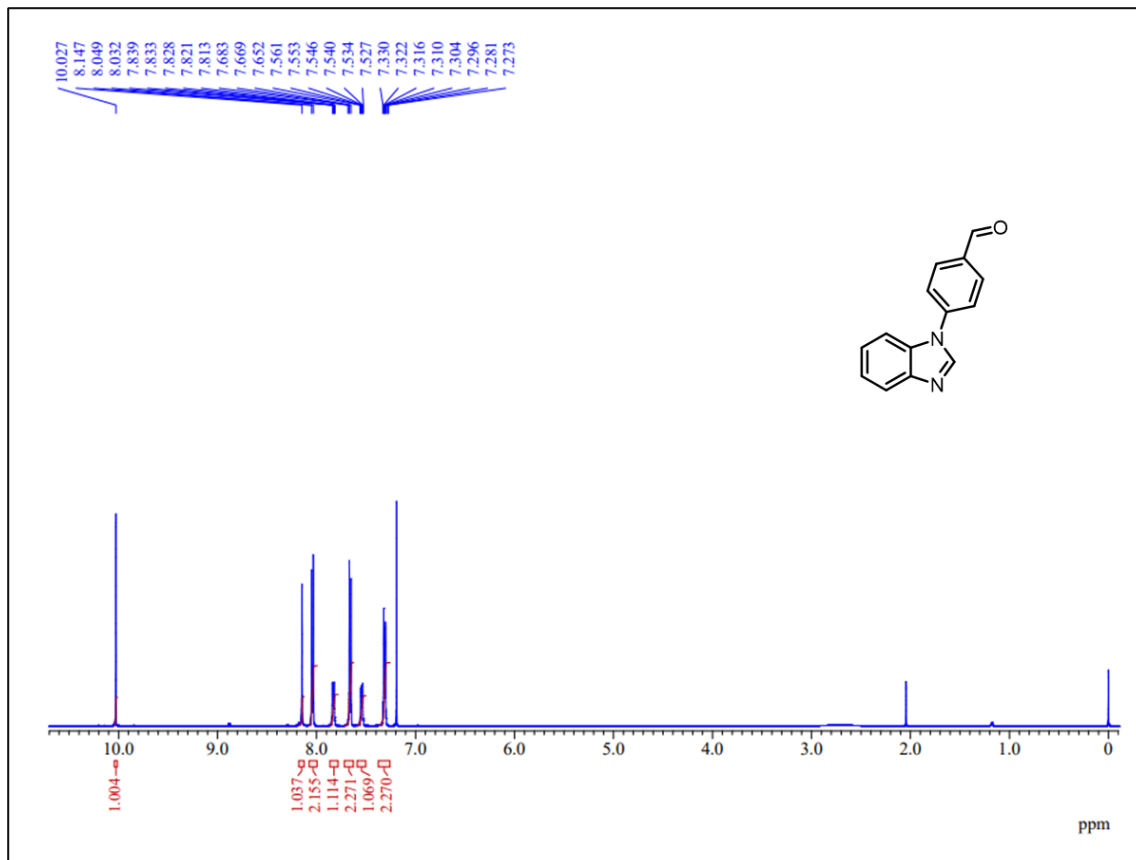
# $^1\text{H}$ NMR and $^{13}\text{C}$ NMR Spectrum of compound **3c**



# FTIR and HRMS Spectrum of compound **3c**

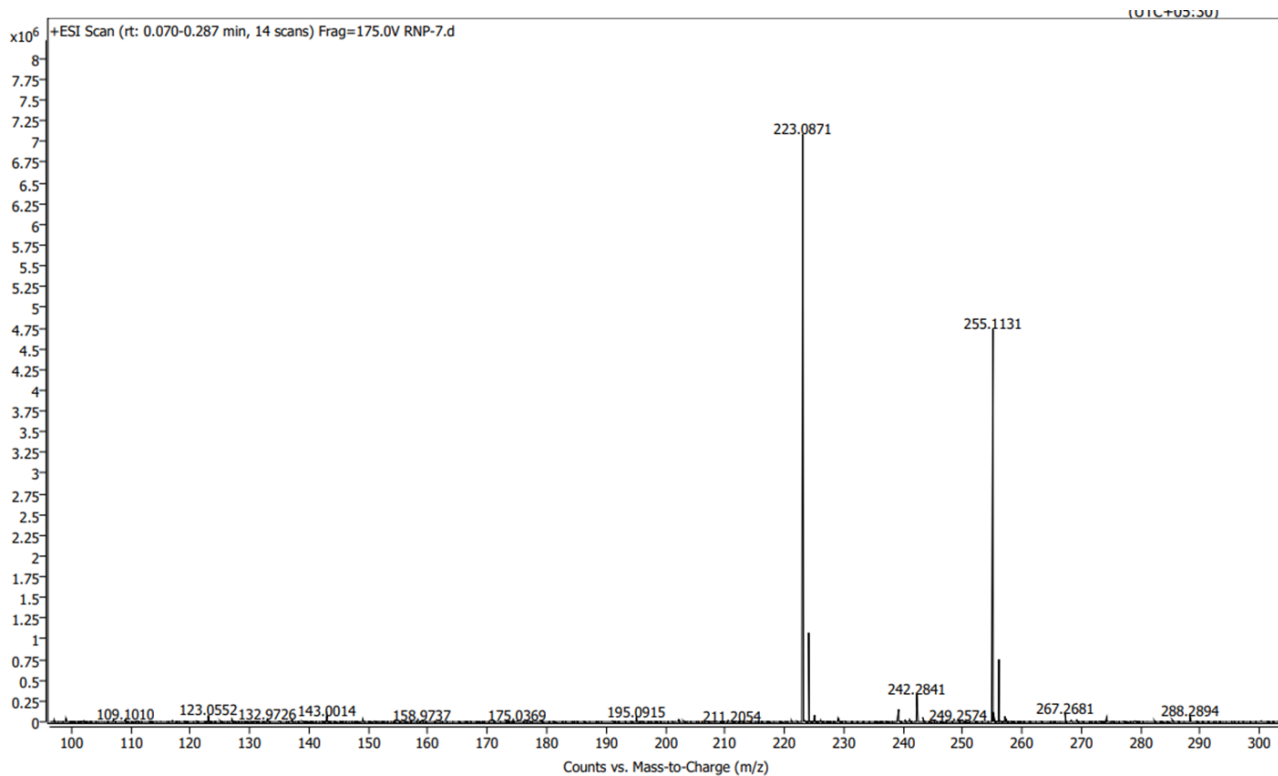
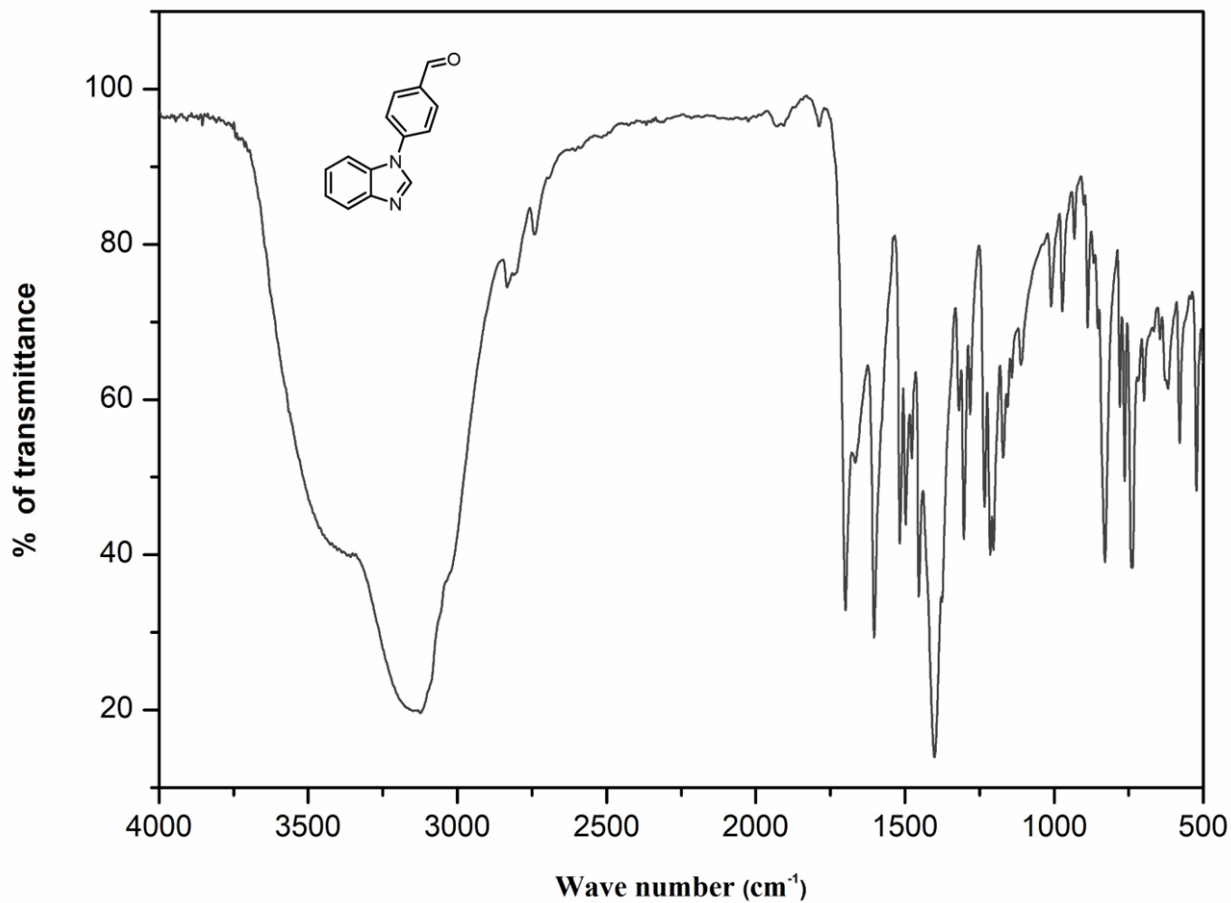


# $^1\text{H}$ NMR and $^{13}\text{C}$ NMR Spectrum of compound **3d**

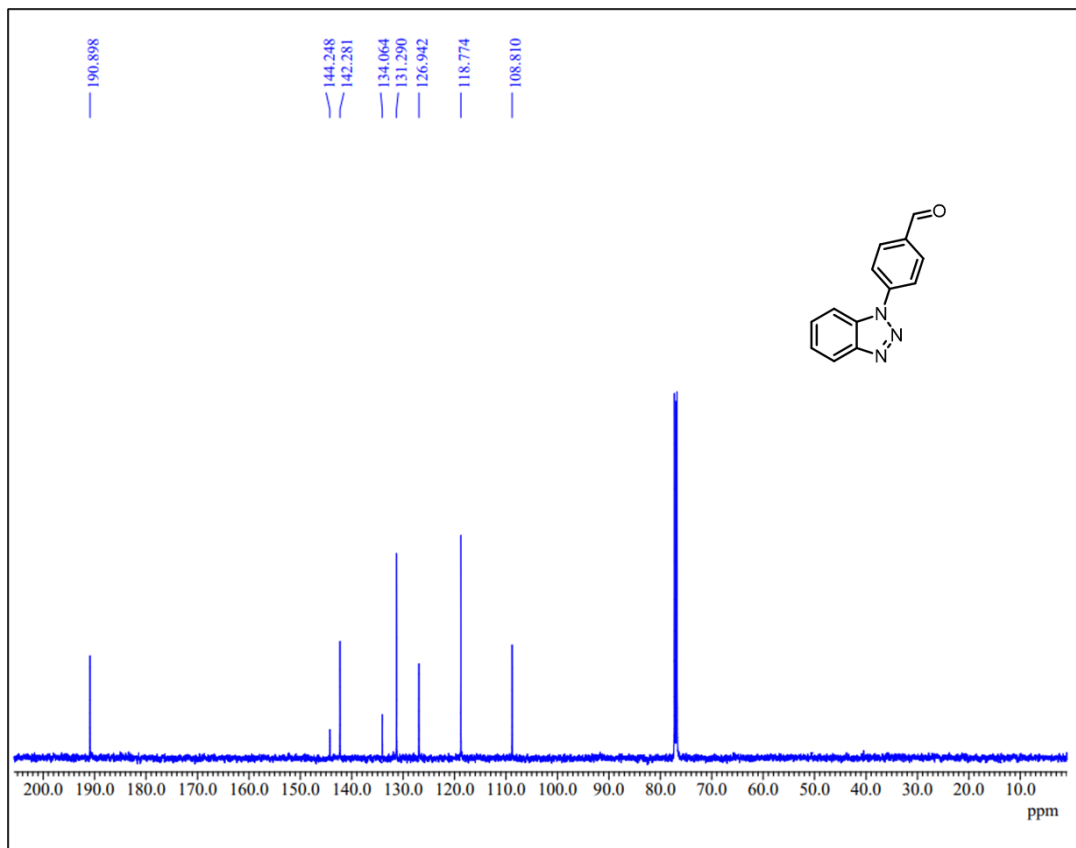
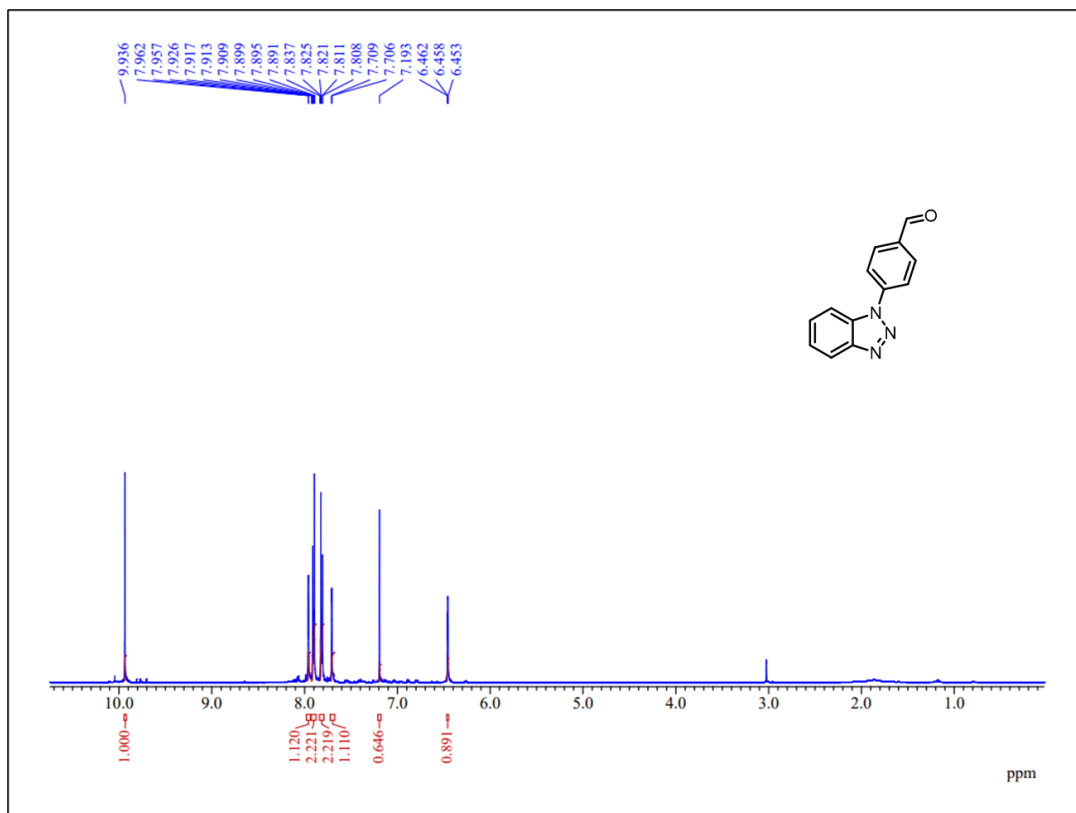




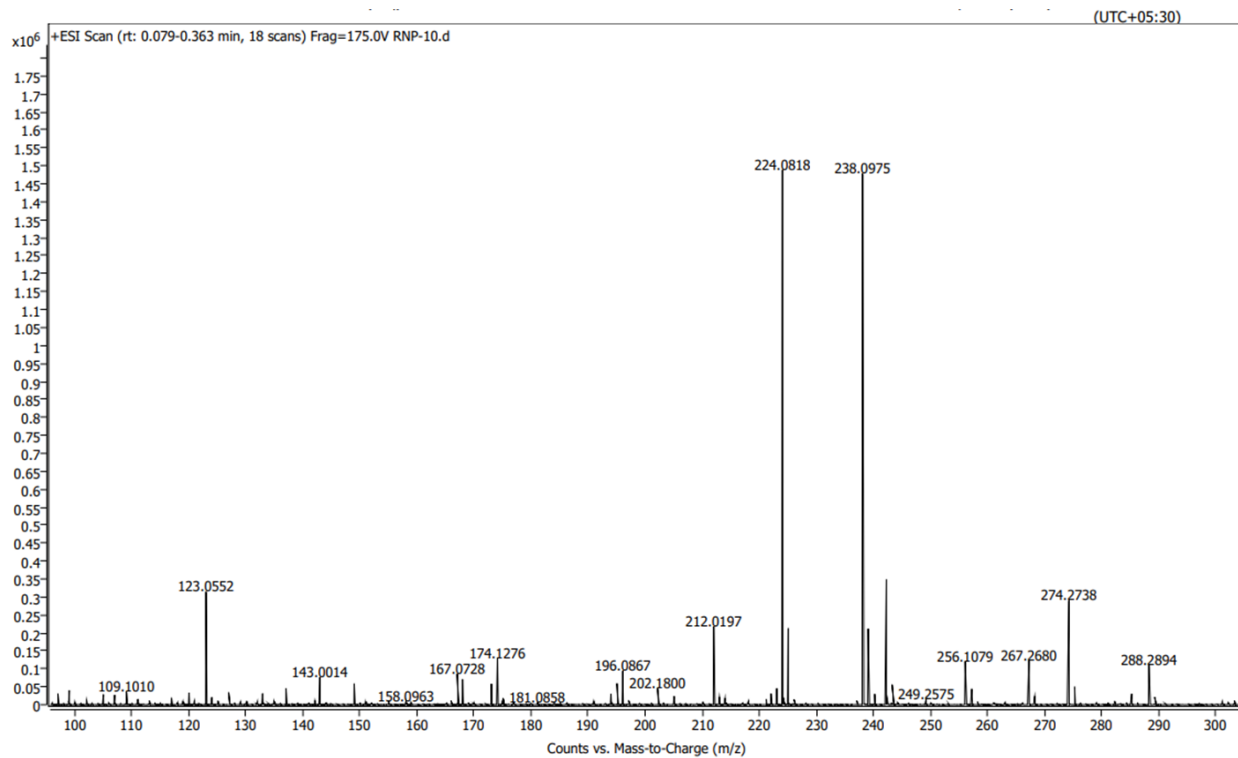
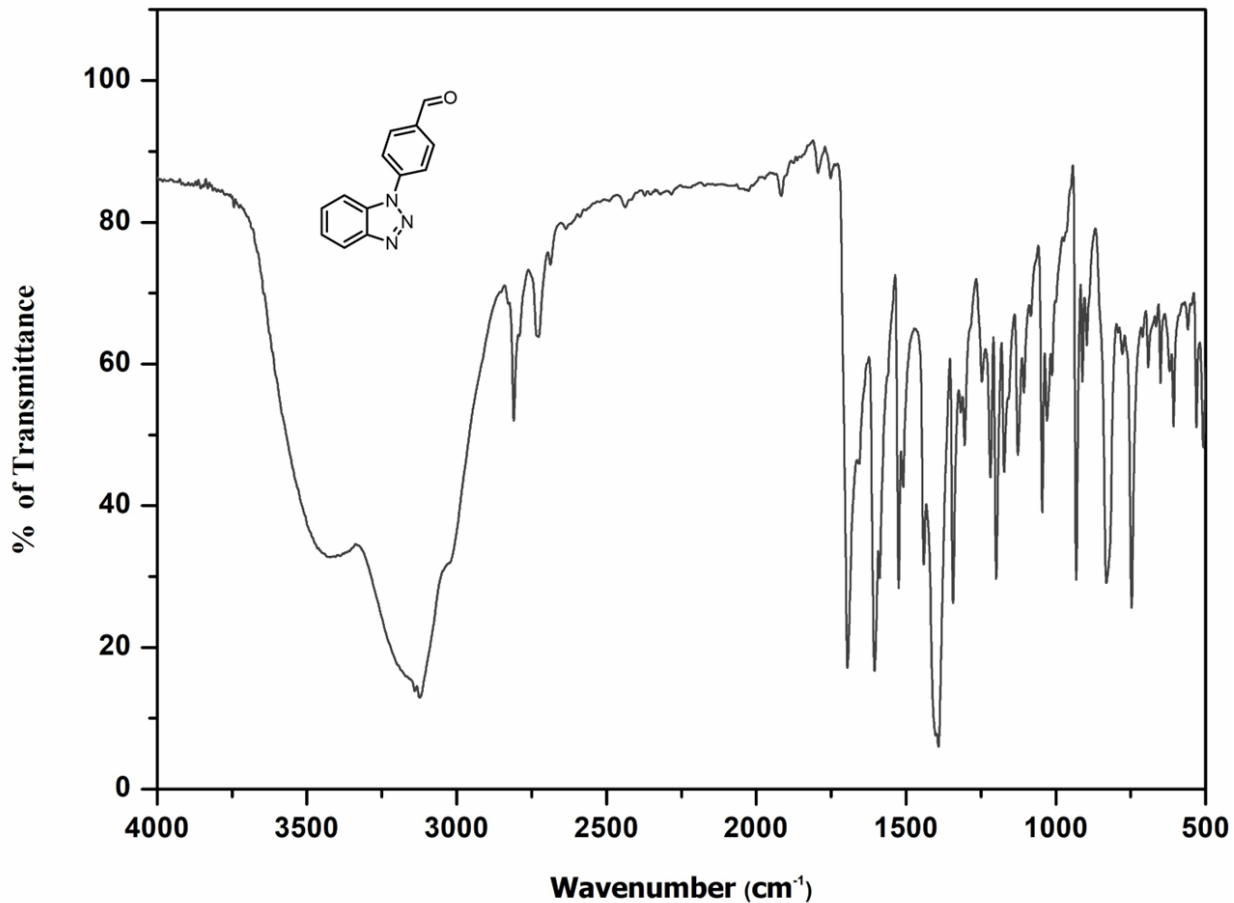
# FTIR and HRMS Spectrum of compound **3d**



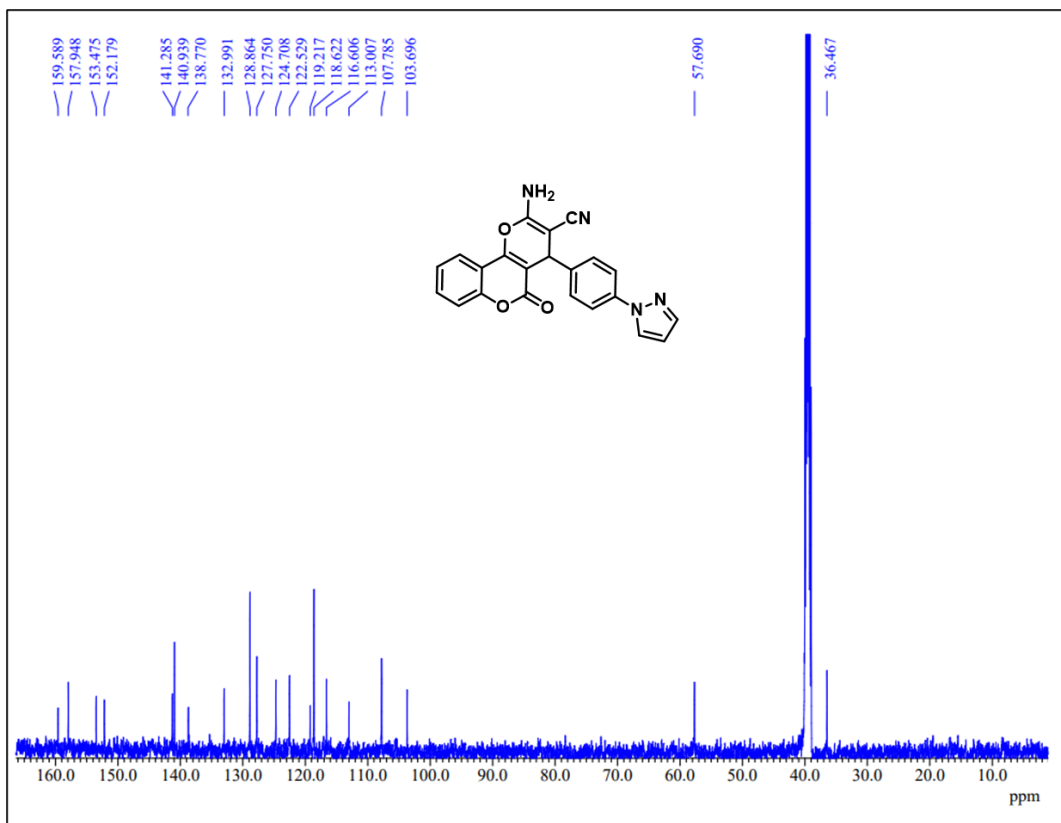
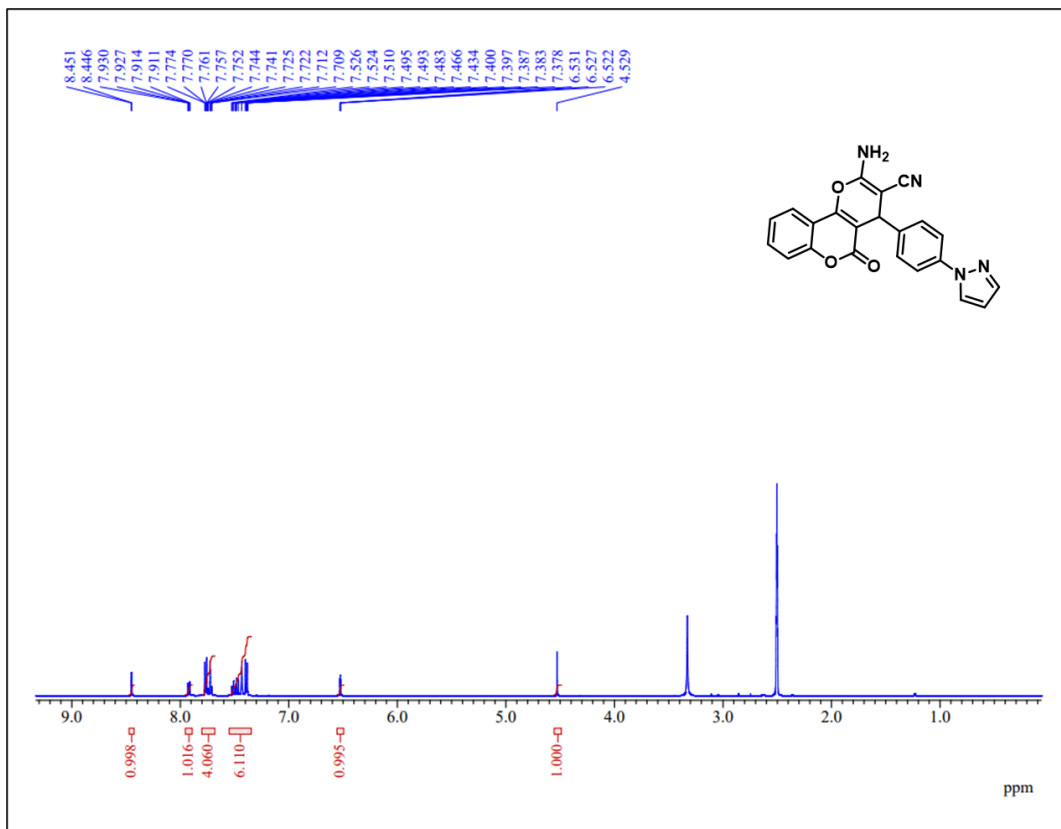
# $^1\text{H}$ NMR and $^{13}\text{C}$ NMR Spectrum of compound **3e**



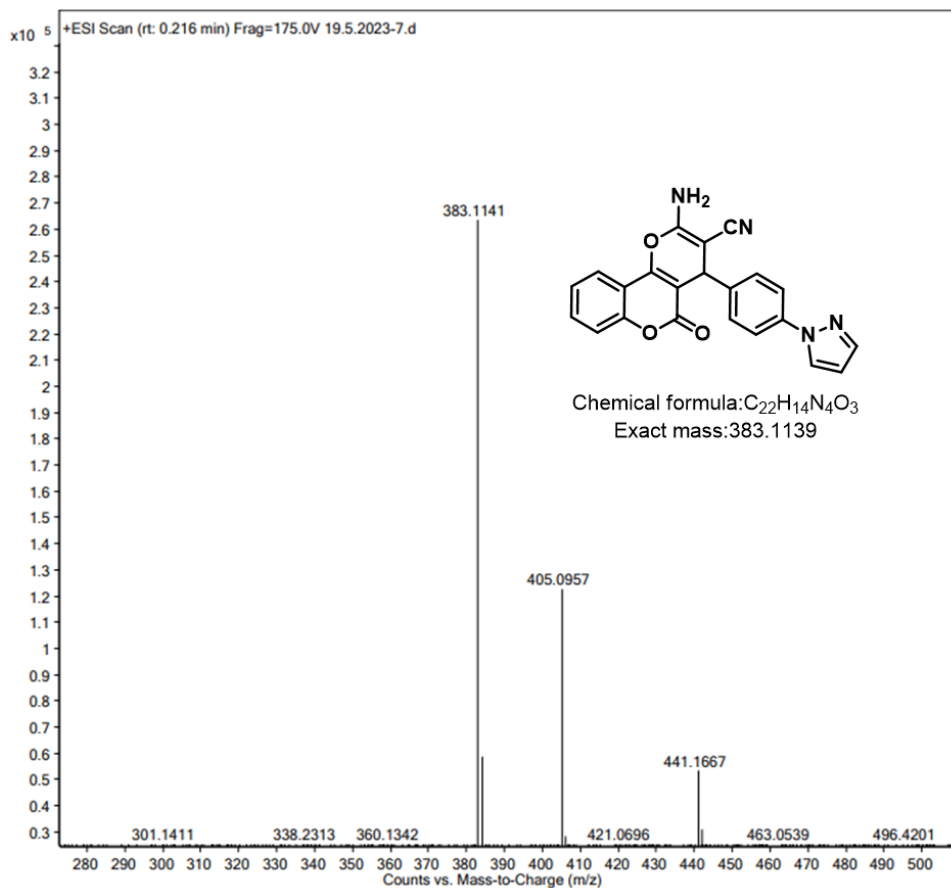
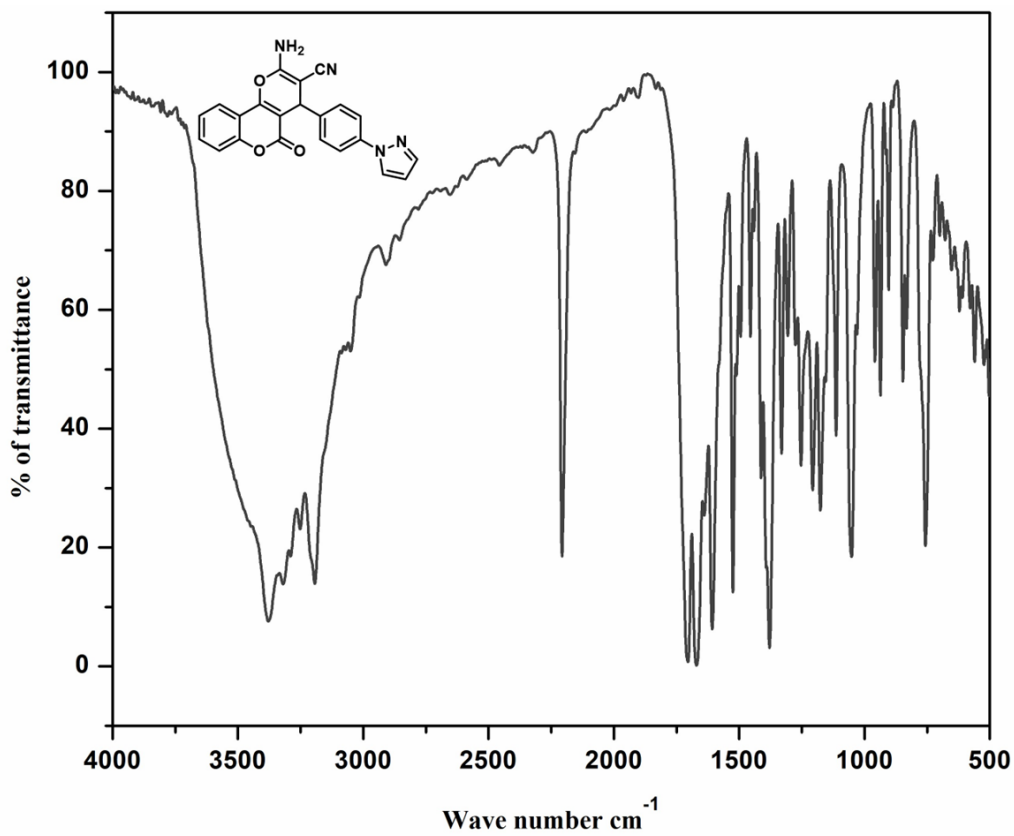
# FTIR and HRMS Spectrum of compound **3e**



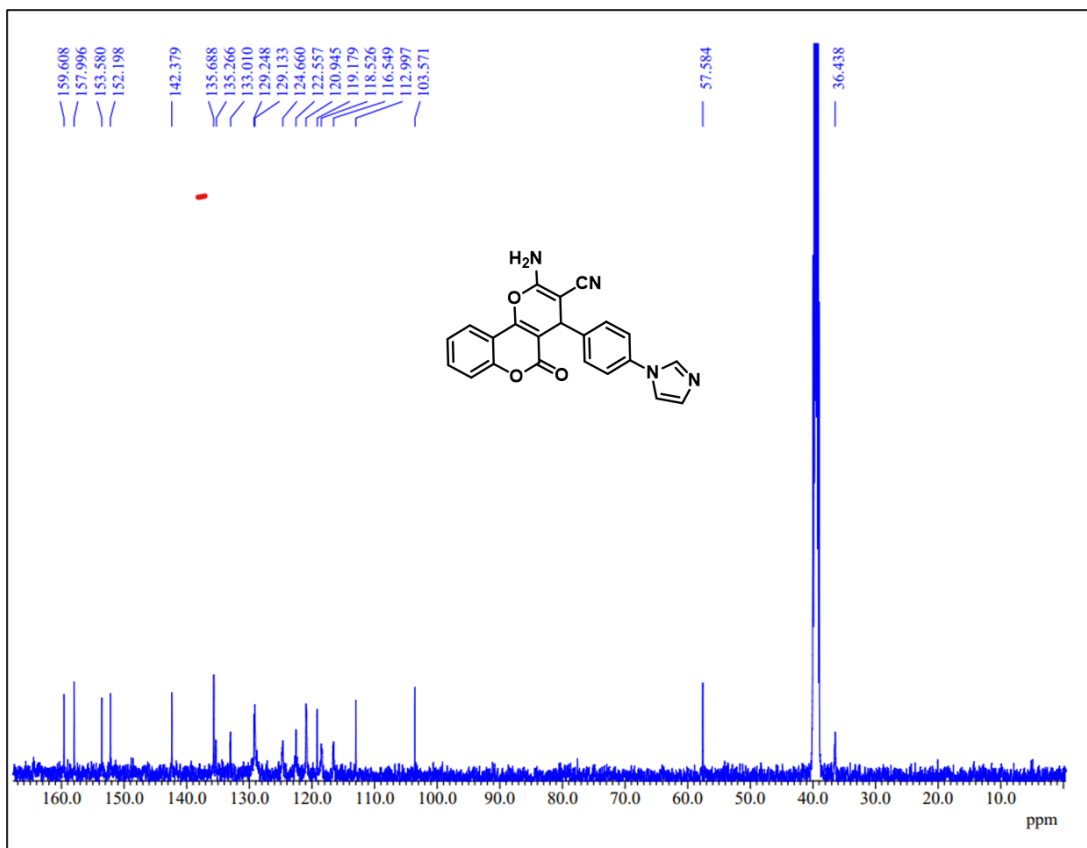
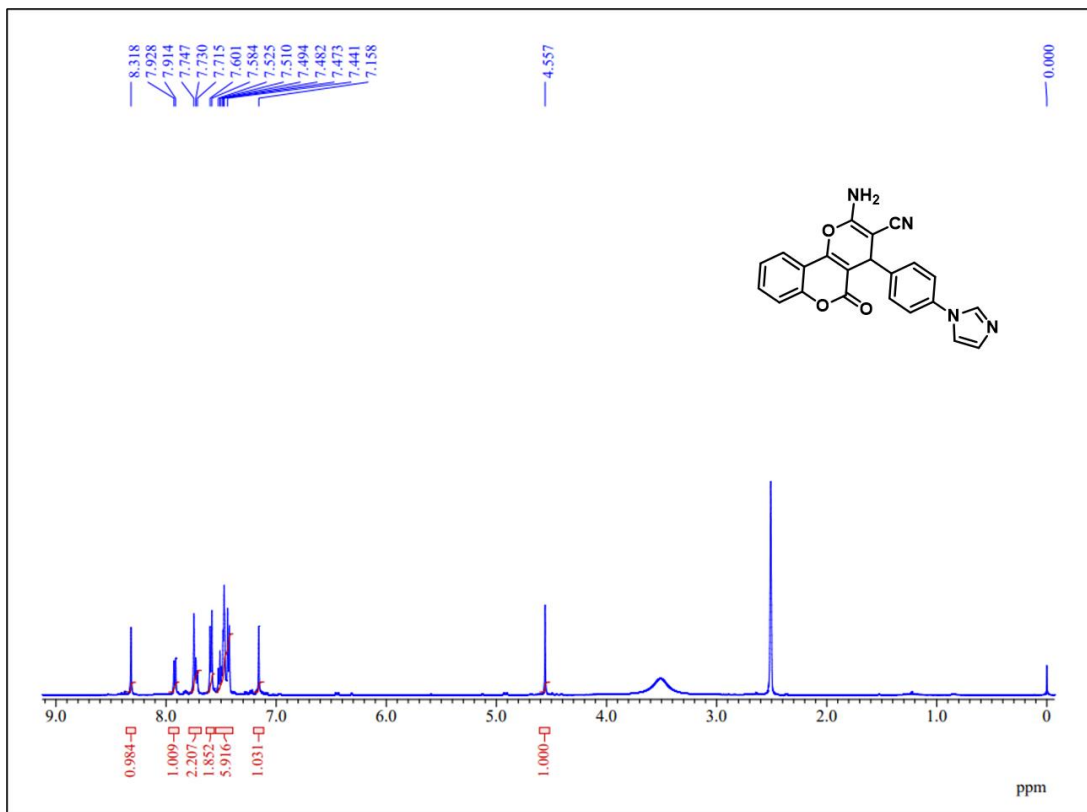
# $^1\text{H}$ NMR and $^{13}\text{C}$ NMR Spectrum of compound **6a**



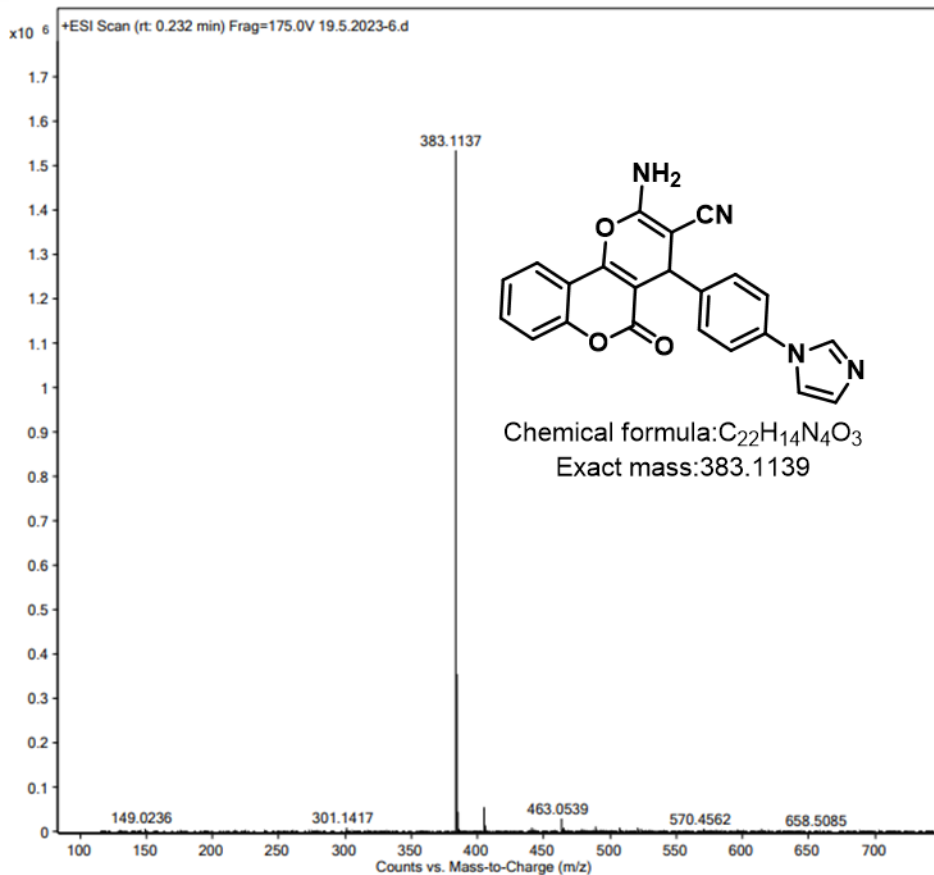
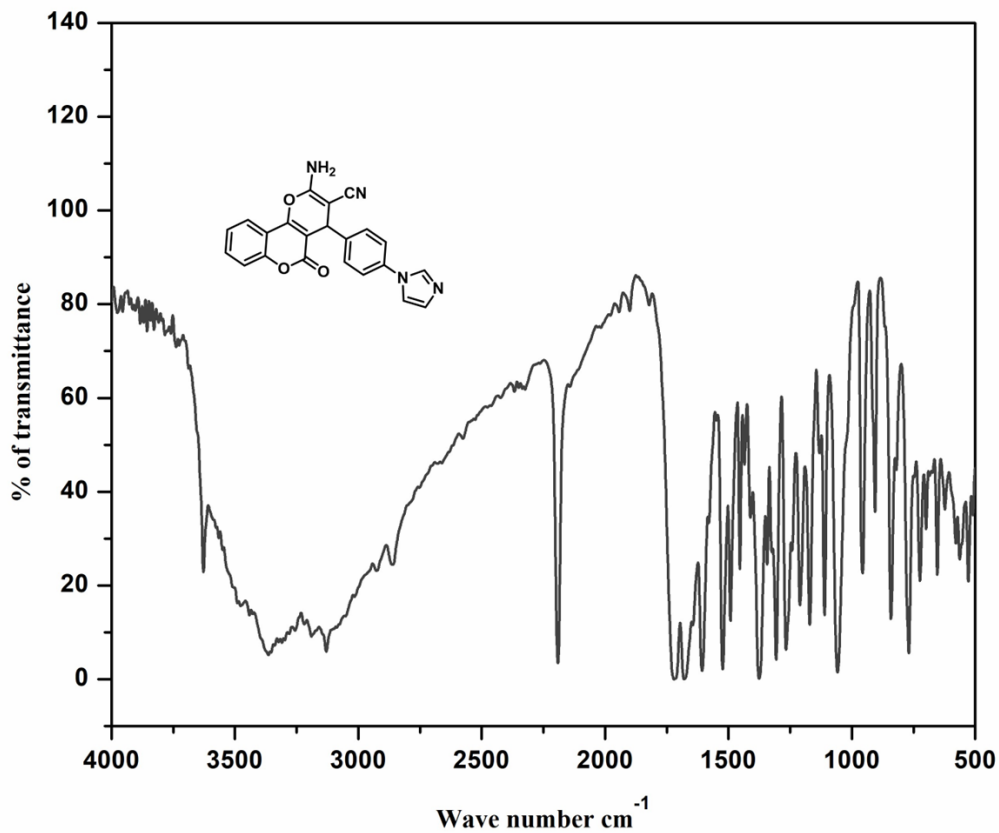
# FTIR and HRMS Spectrum of compound **6a**



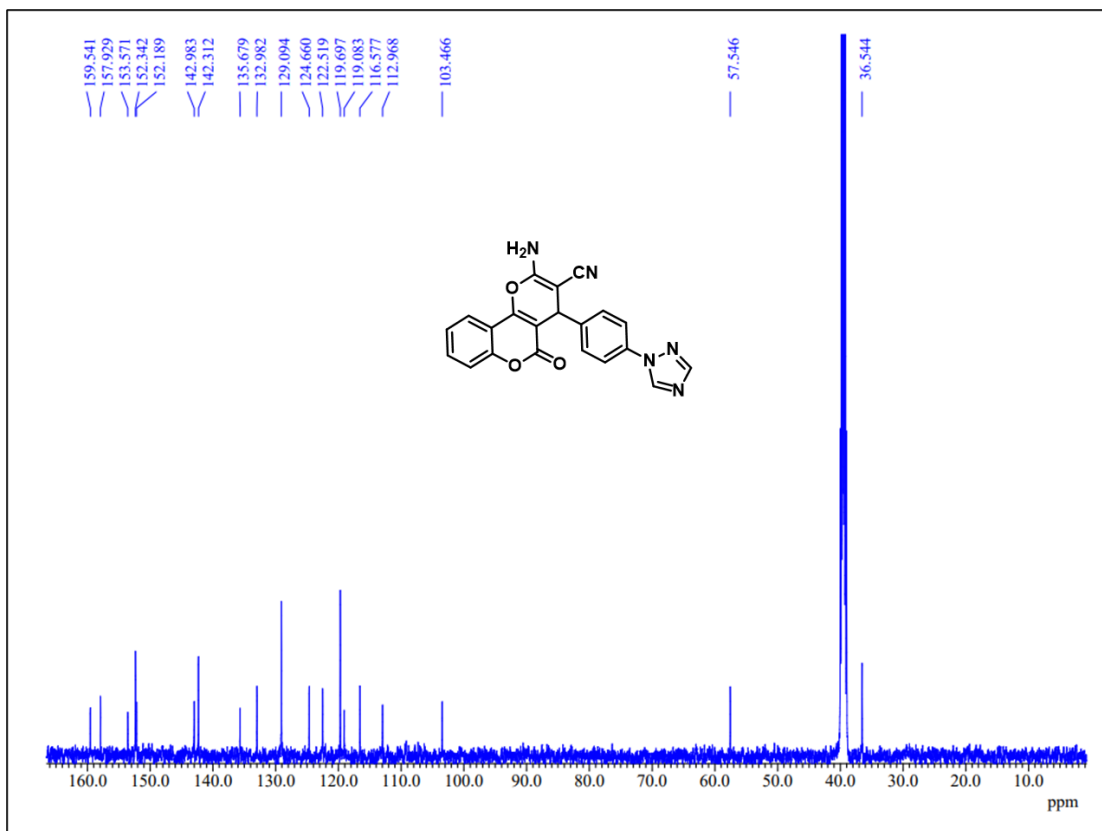
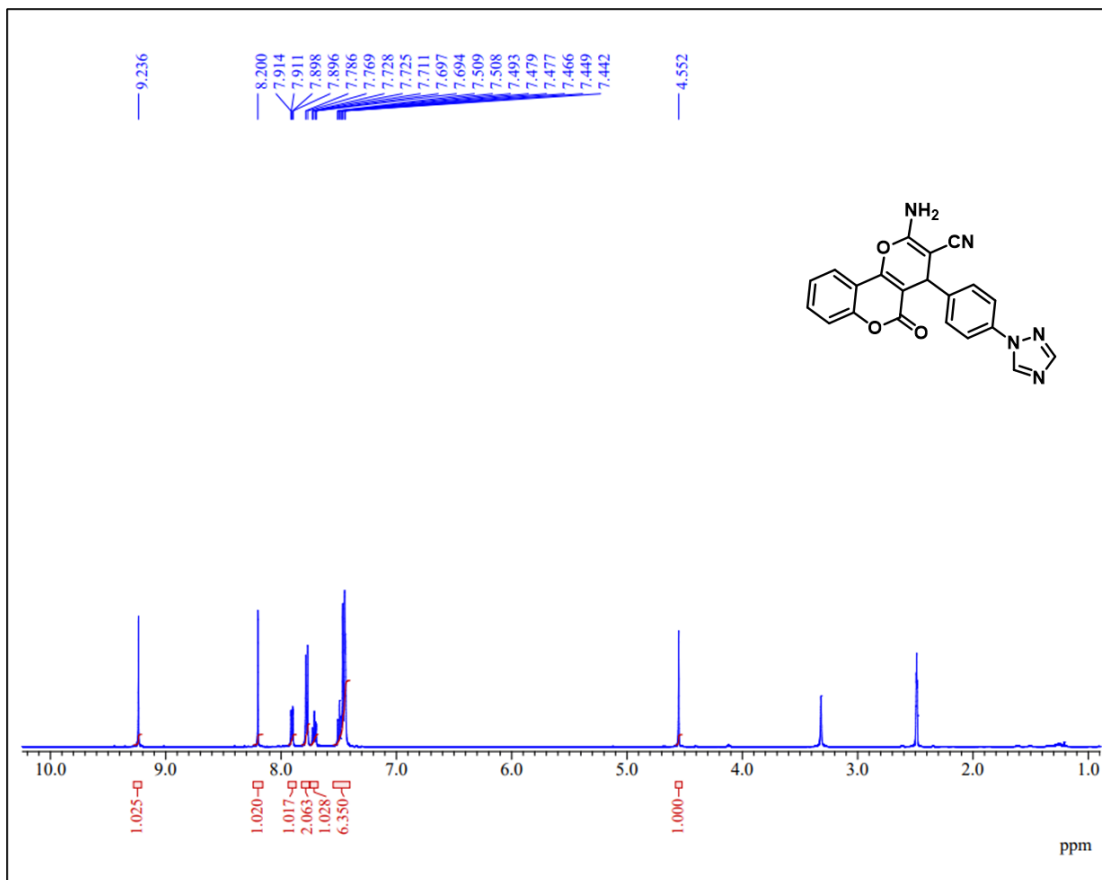
# $^1\text{H}$ NMR and $^{13}\text{C}$ NMR Spectrum of compound **6b**



# FTIR and HRMS Spectrum of compound **6b**

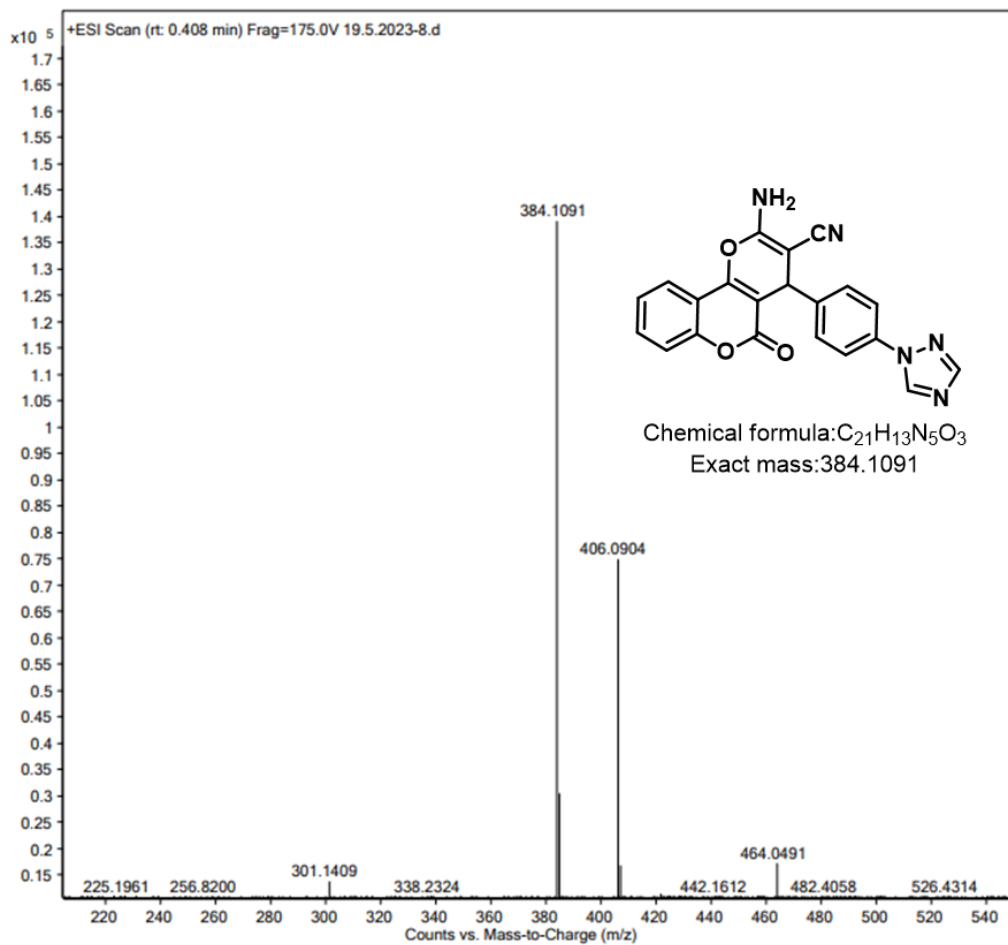
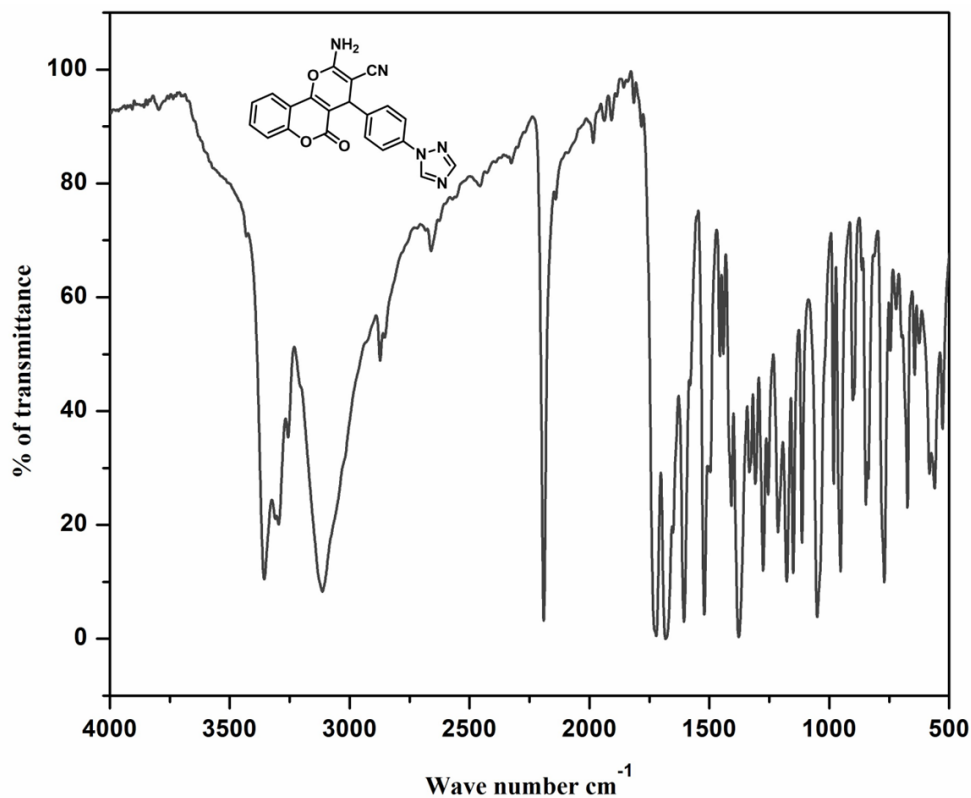


# $^1\text{H}$ NMR and $^{13}\text{C}$ NMR Spectrum of compound **6C**

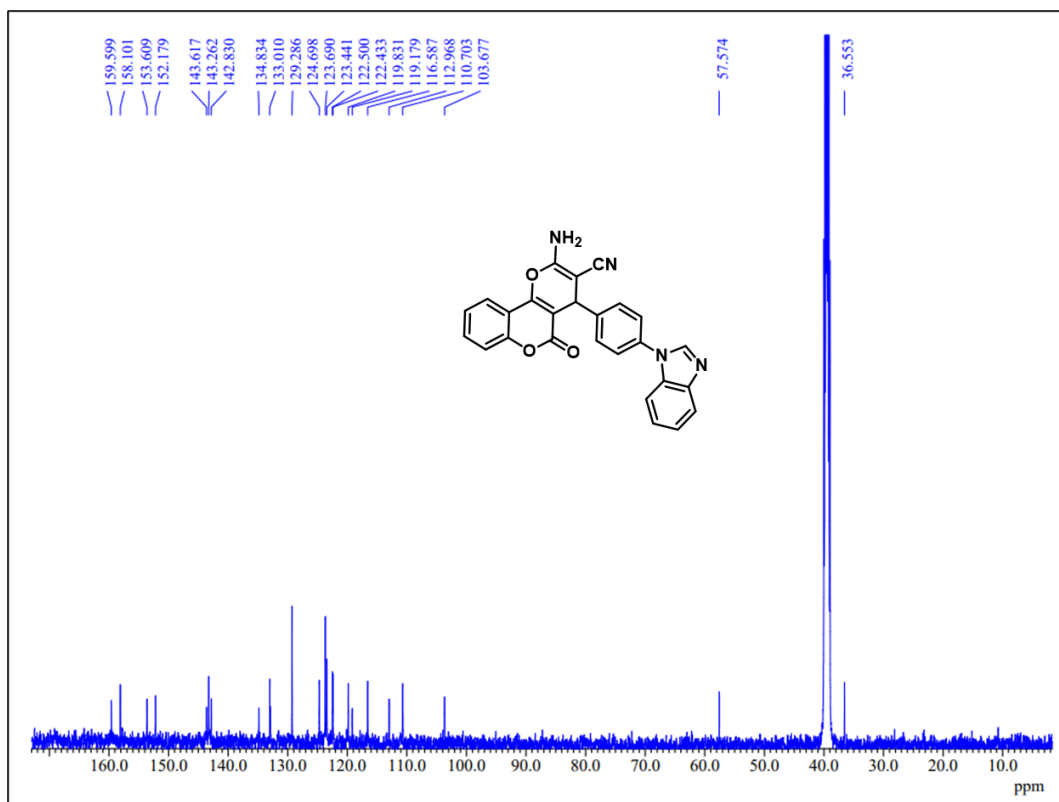
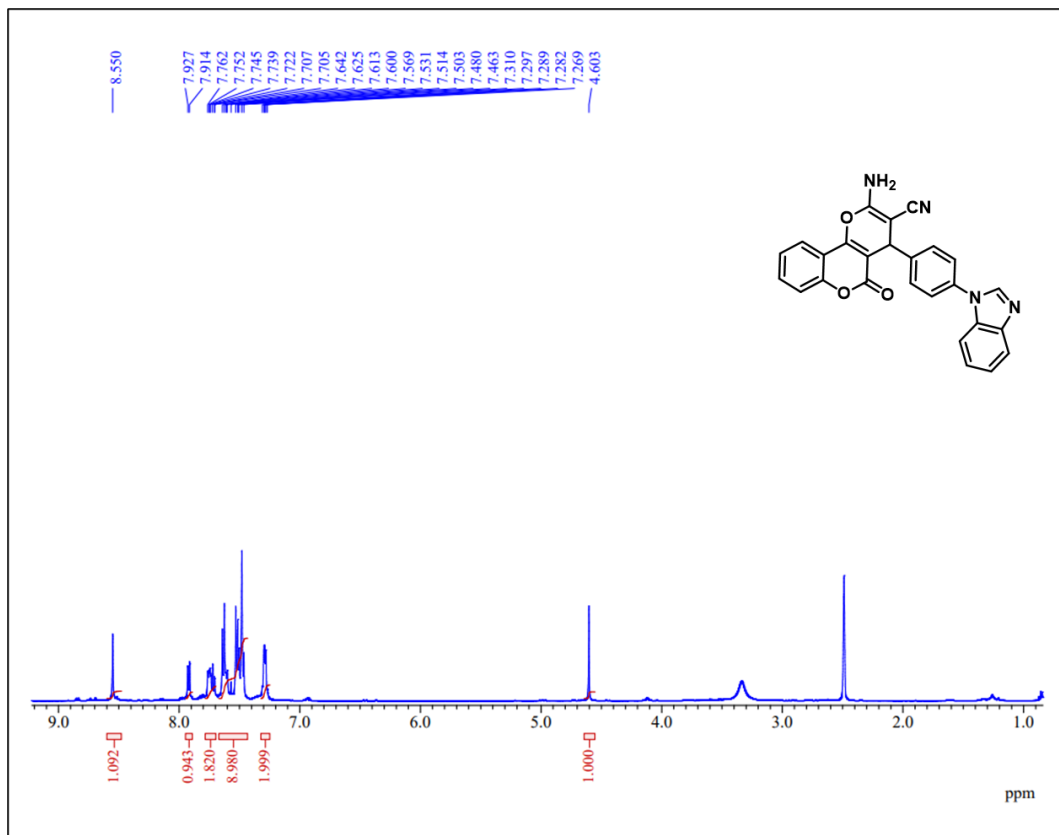




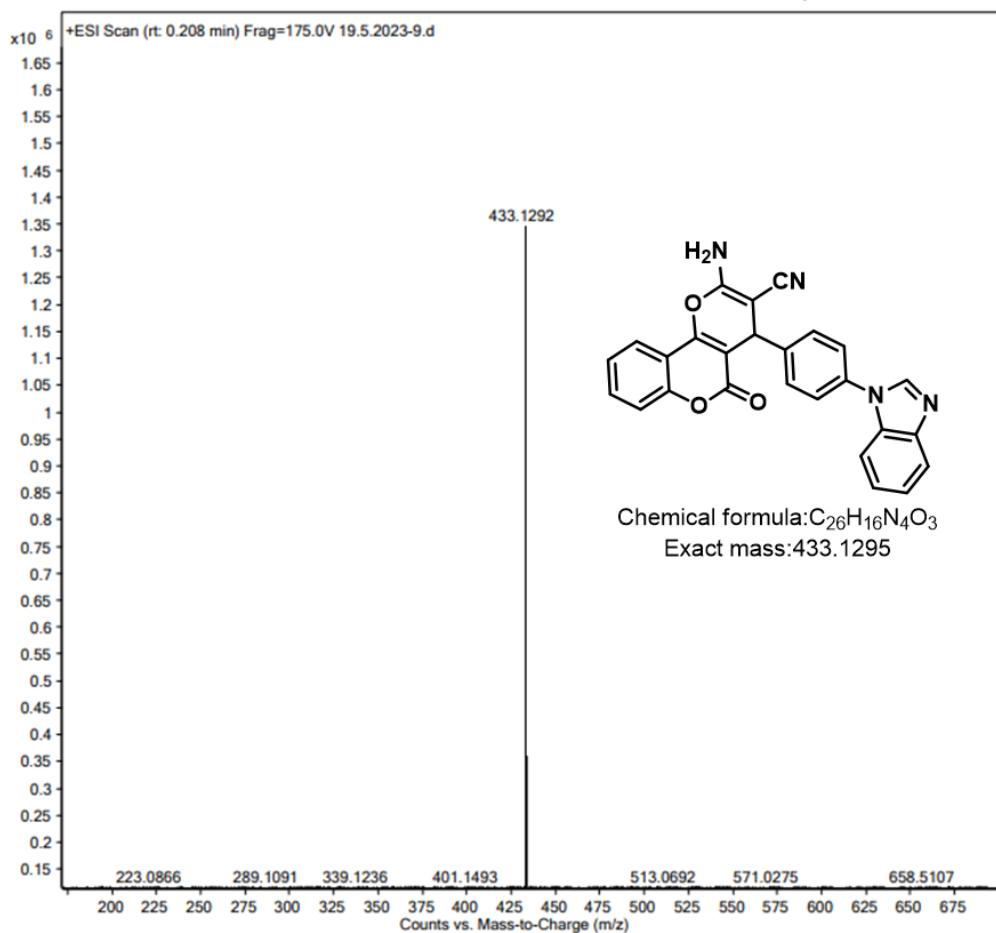
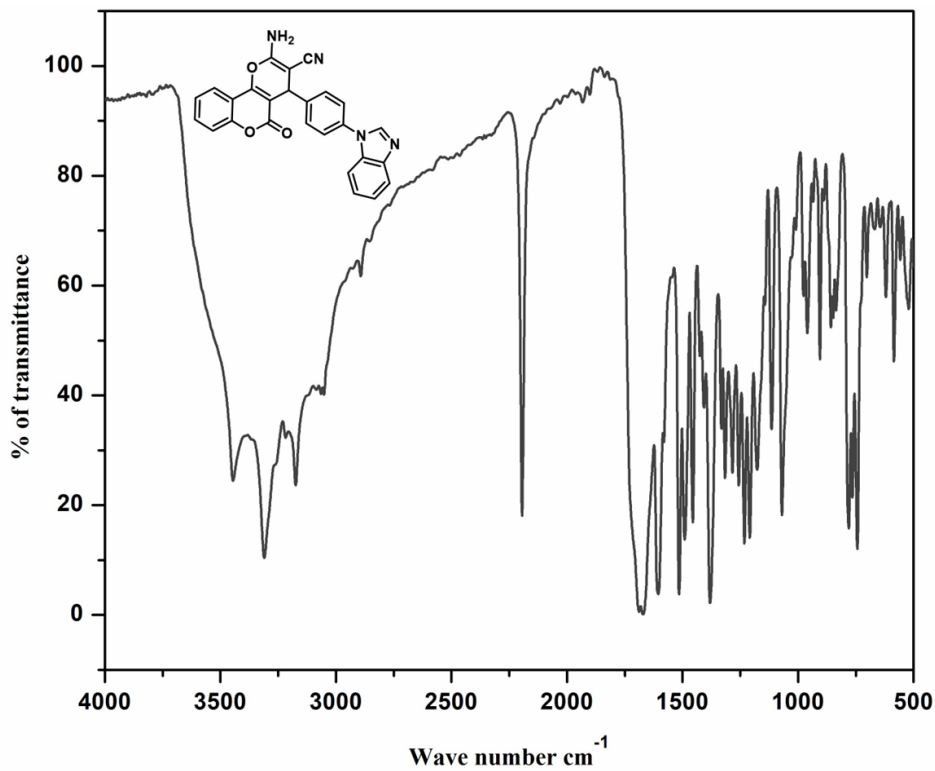
# FTIR and HRMS Spectrum of compound **6C**



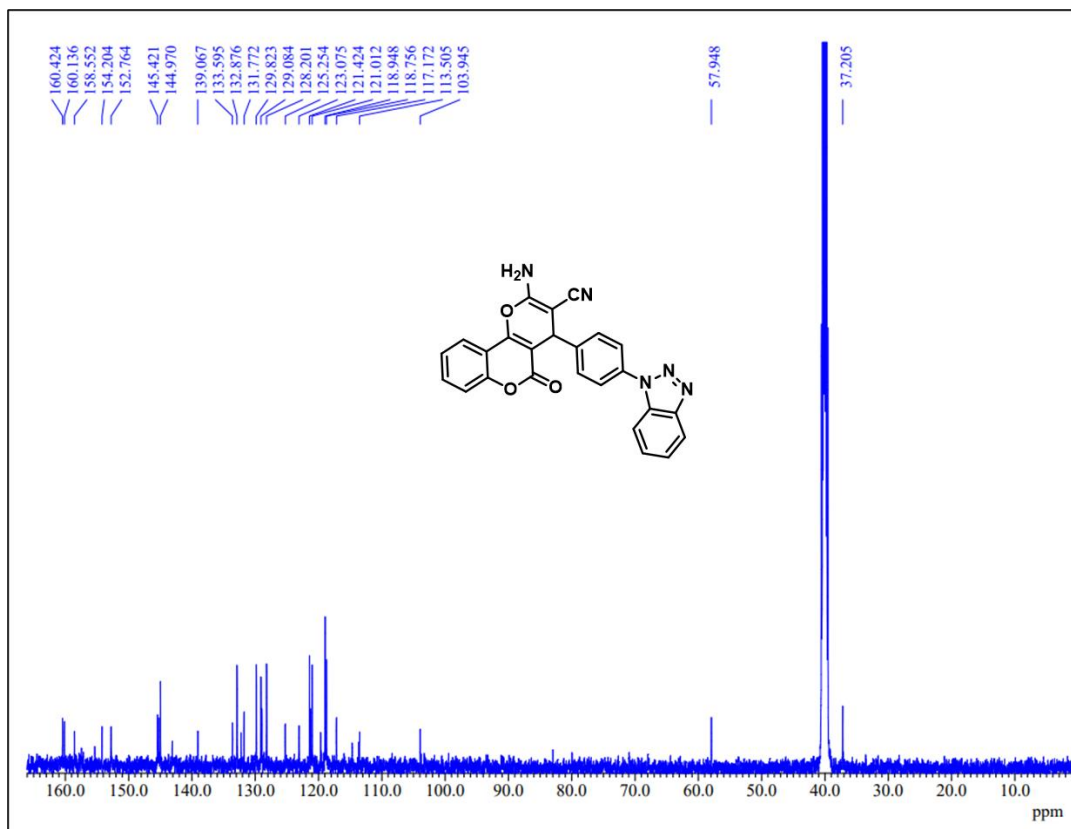
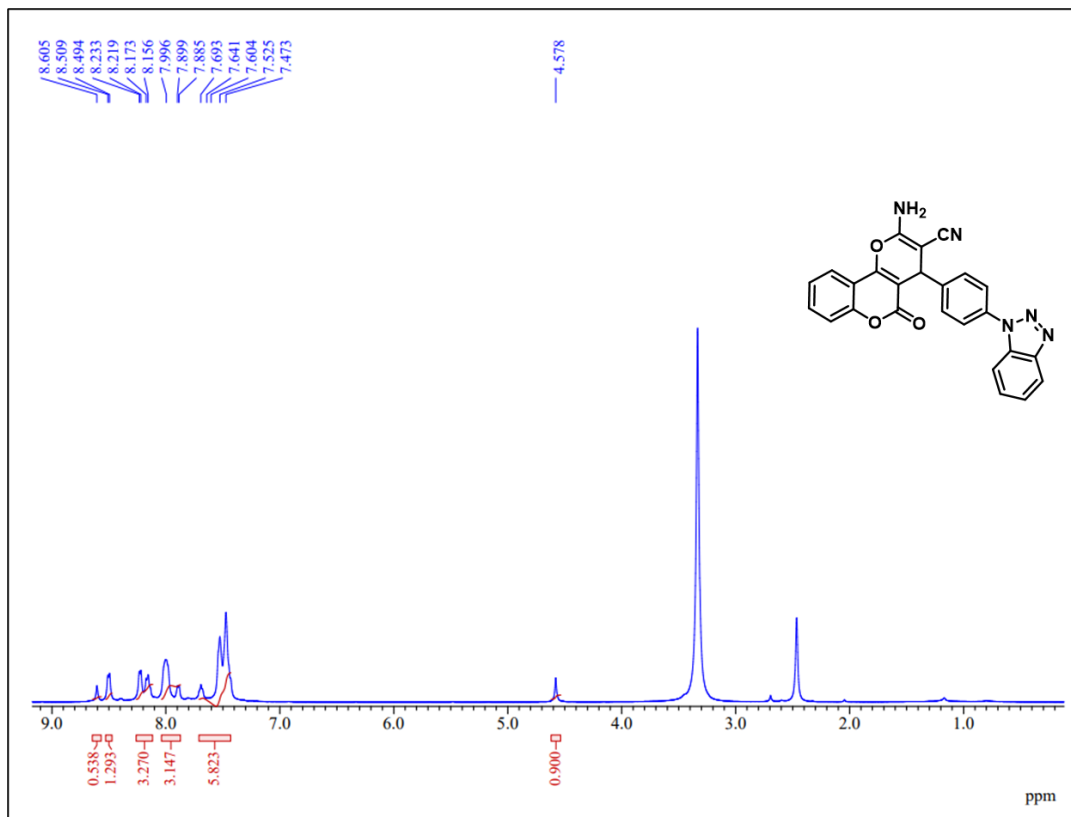
# $^1\text{H}$ NMR and $^{13}\text{C}$ NMR Spectrum of compound **6d**



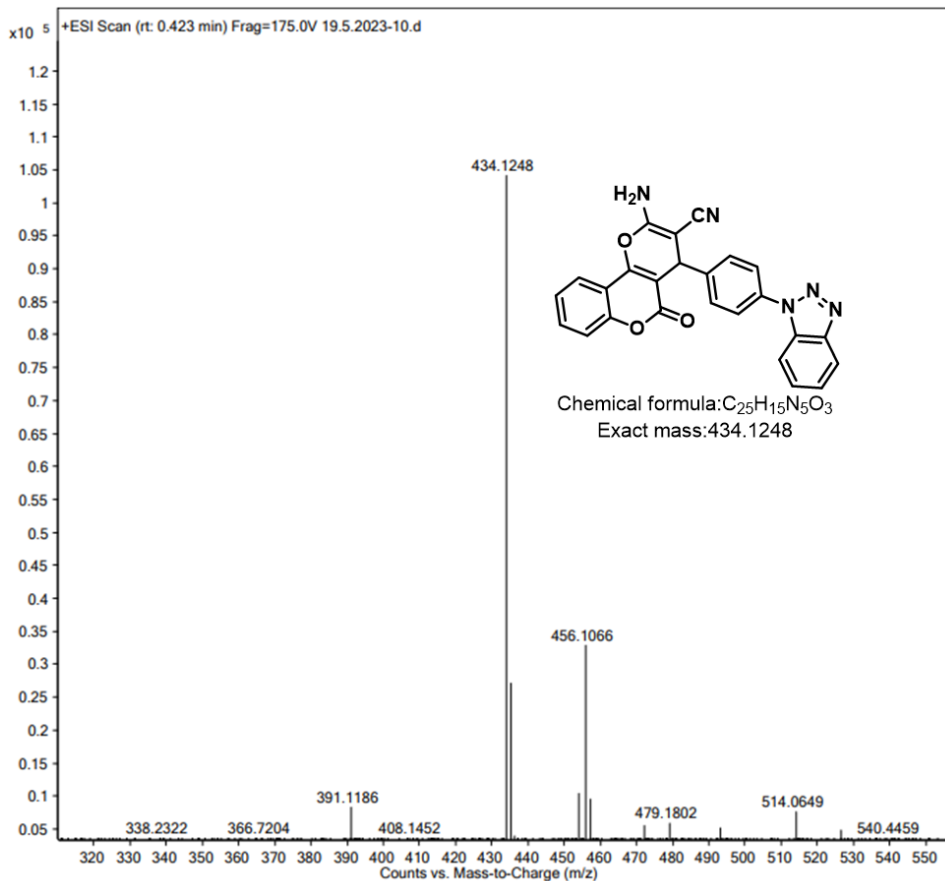
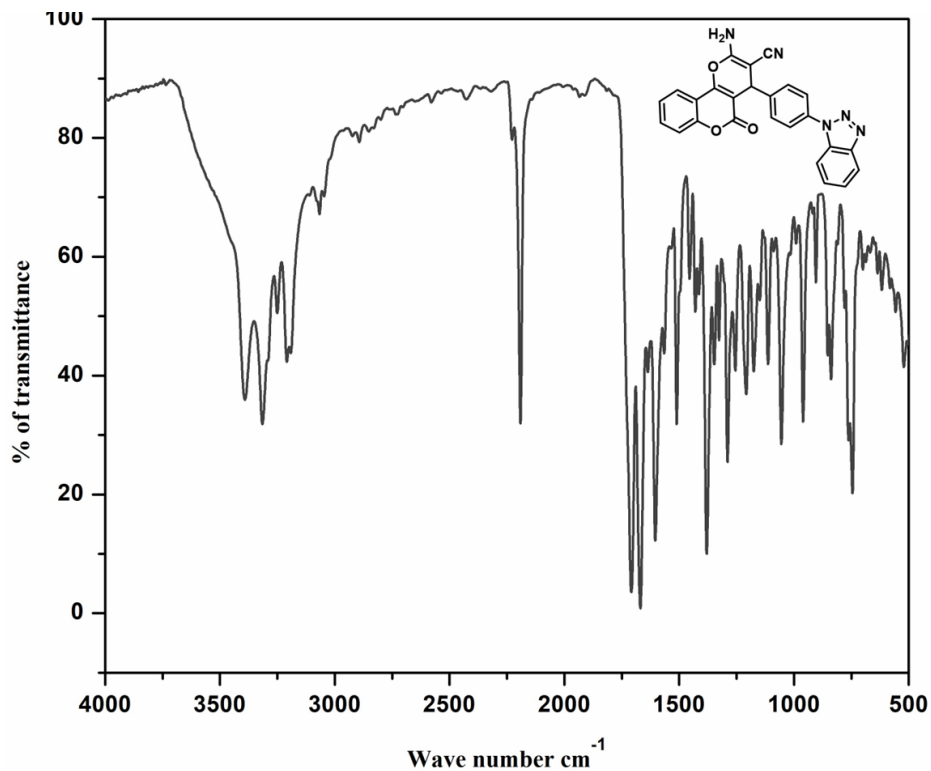
# FTIR and HRMS Spectrum of compound **6d**



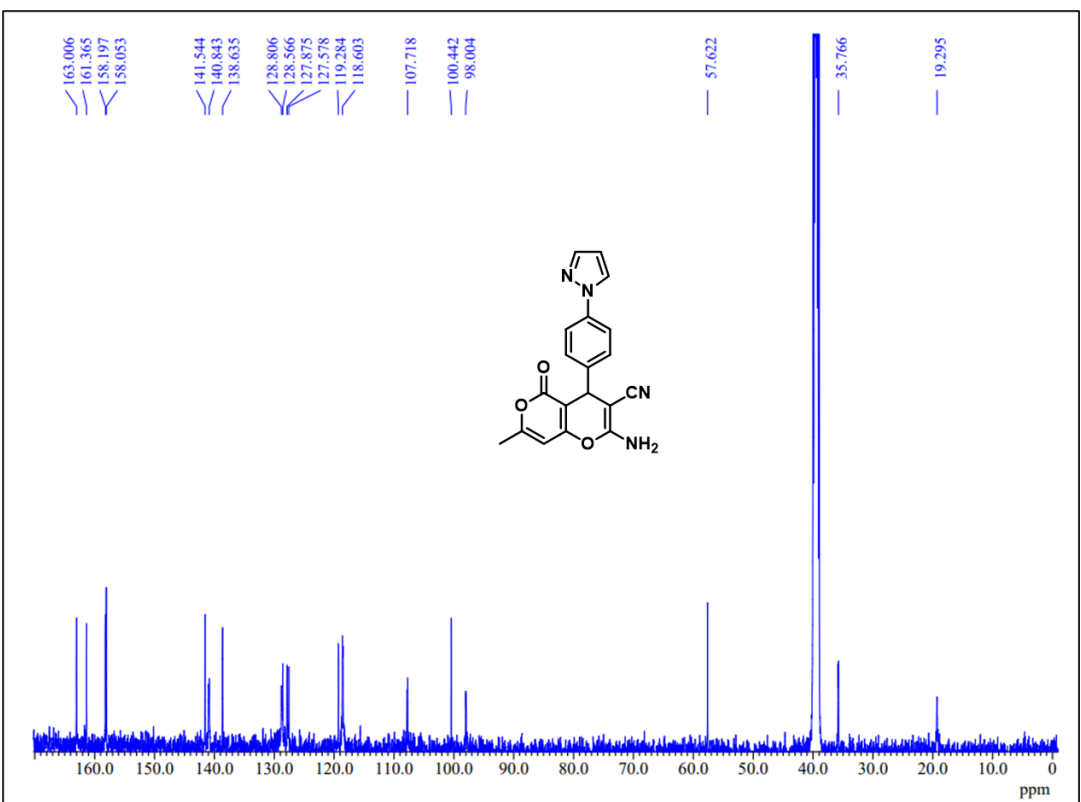
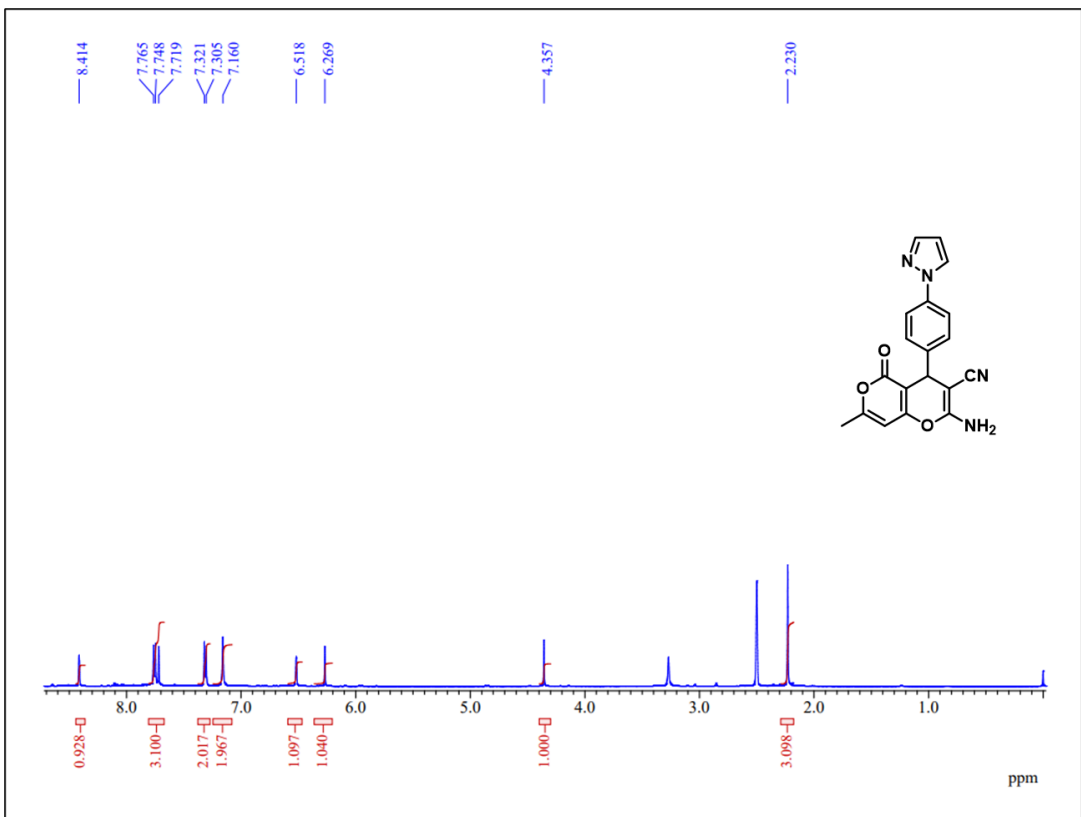
# $^1\text{H}$ NMR and $^{13}\text{C}$ NMR Spectrum of compound **6e**



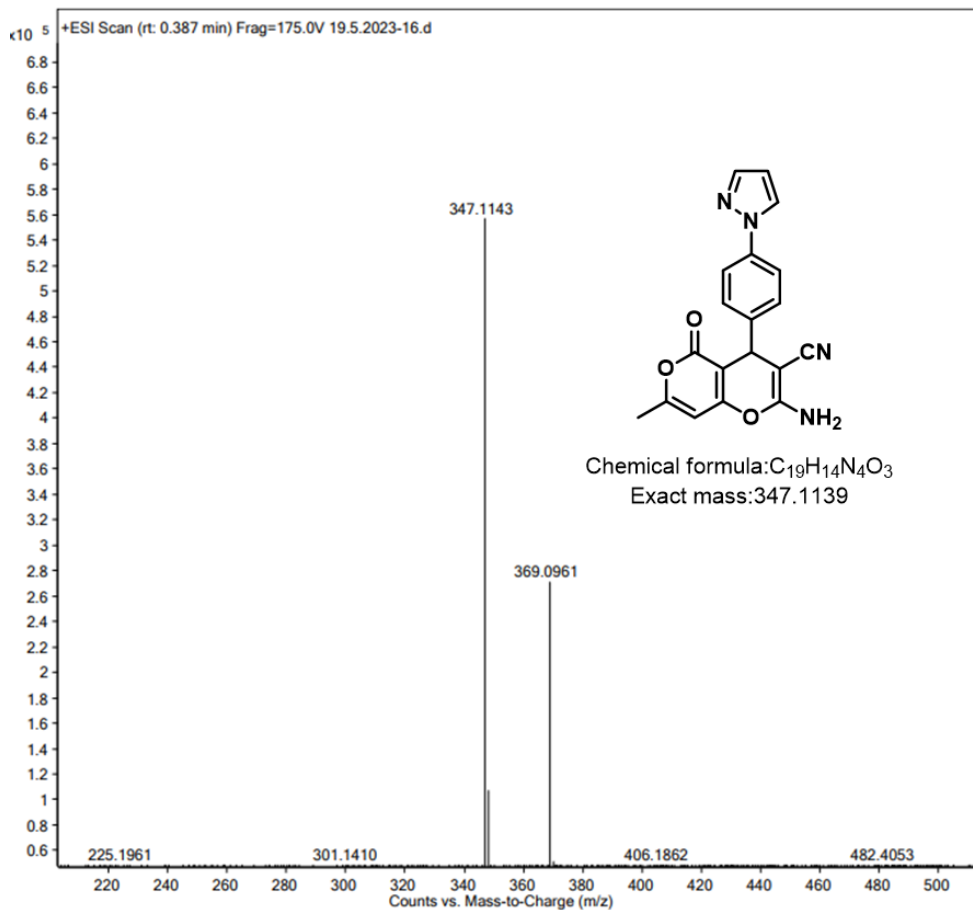
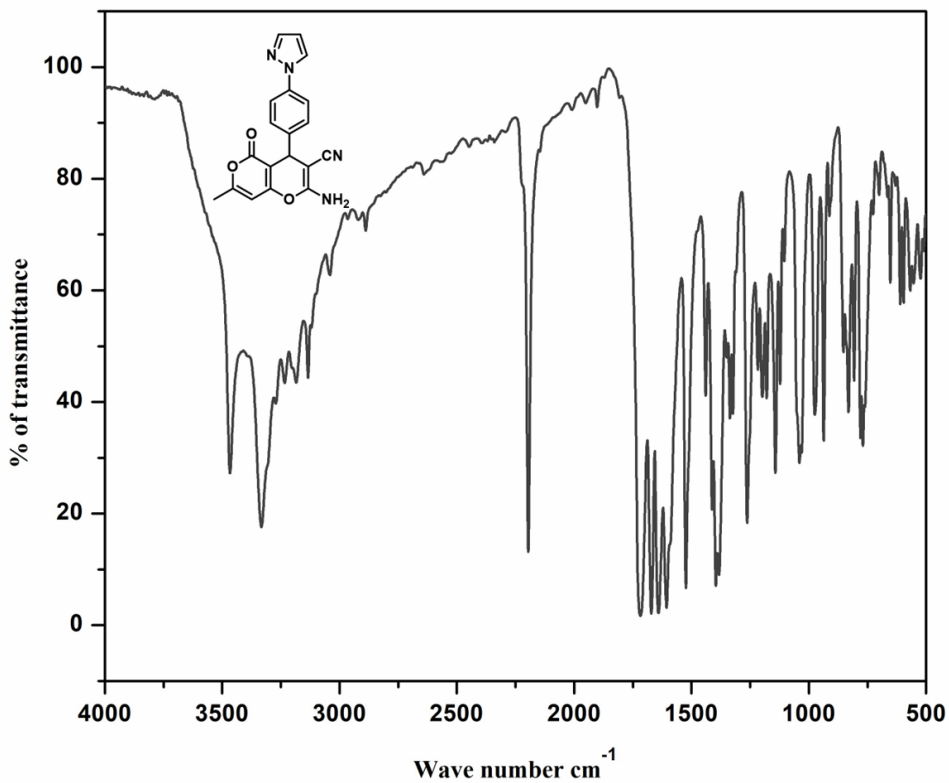
# FTIR and HRMS Spectrum of compound **6e**



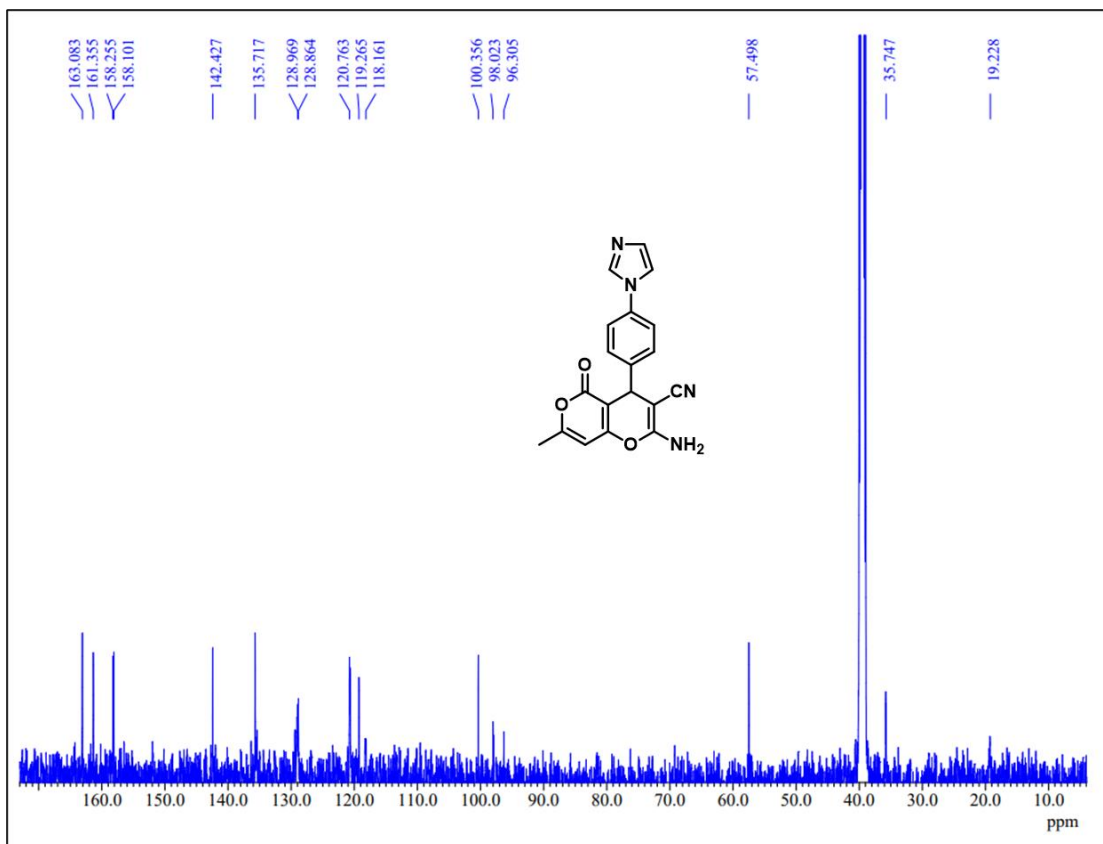
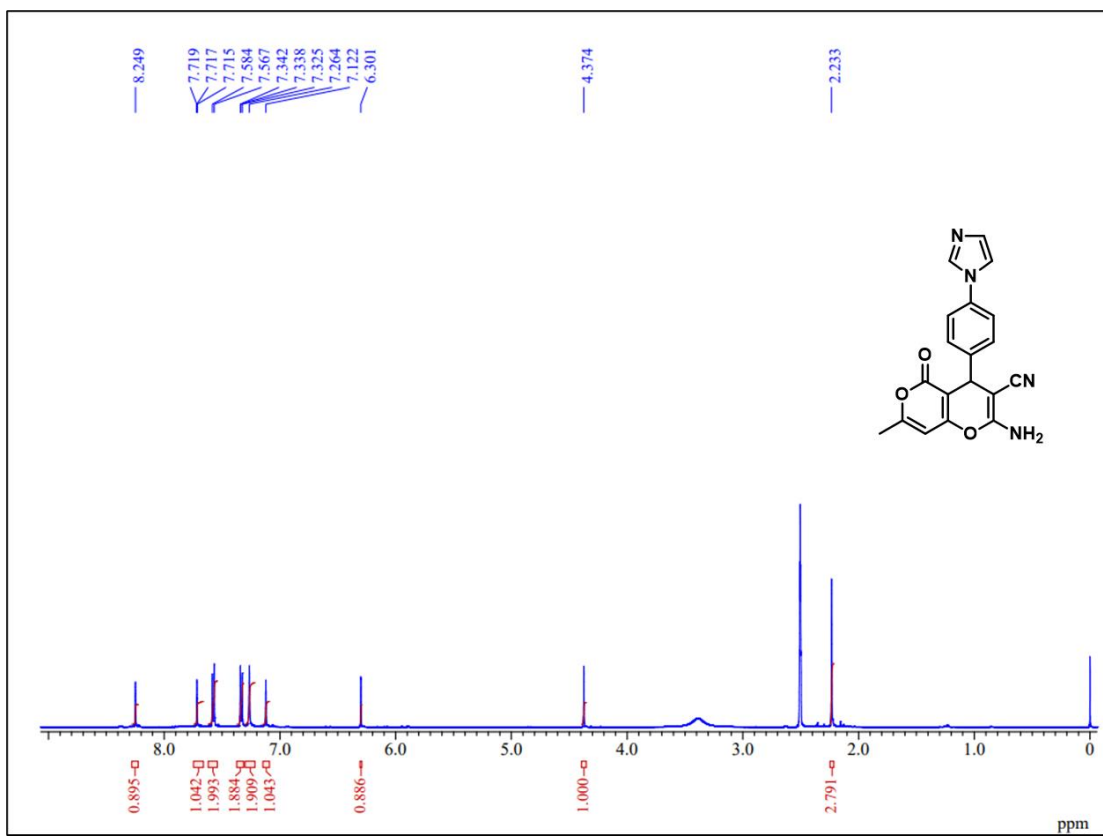
# $^1\text{H}$ NMR and $^{13}\text{C}$ NMR Spectrum of compound **8a**



# FTIR and HRMS Spectrum of compound **8a**

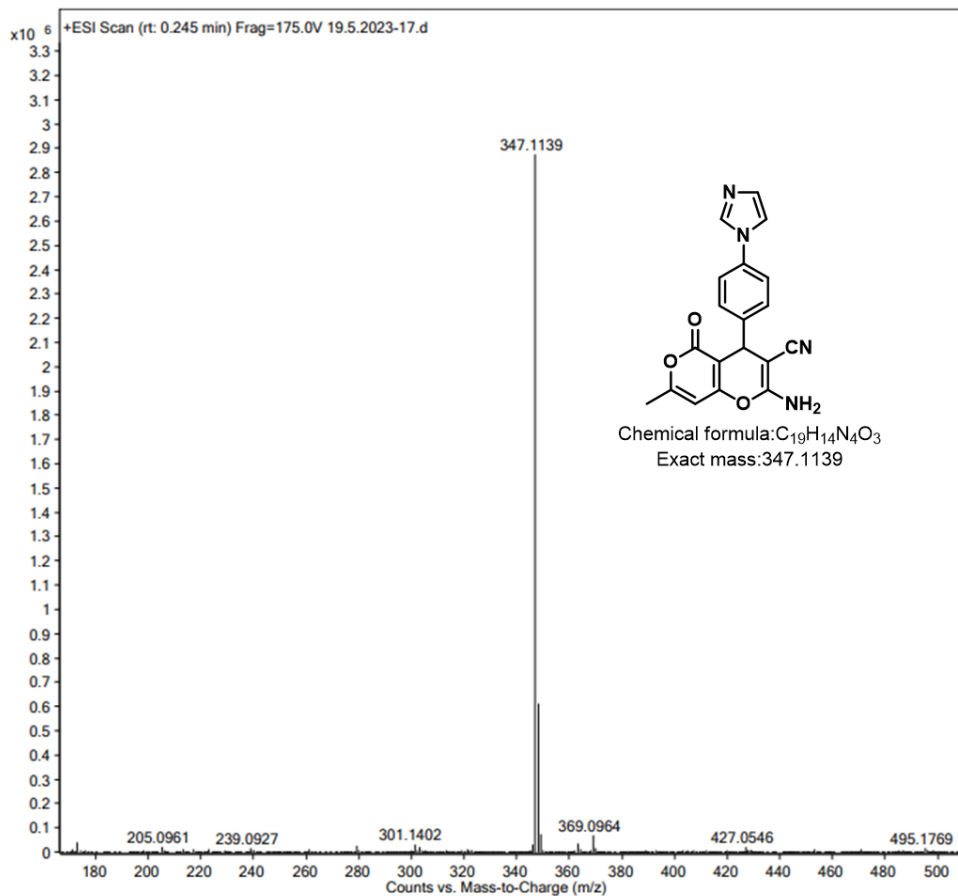
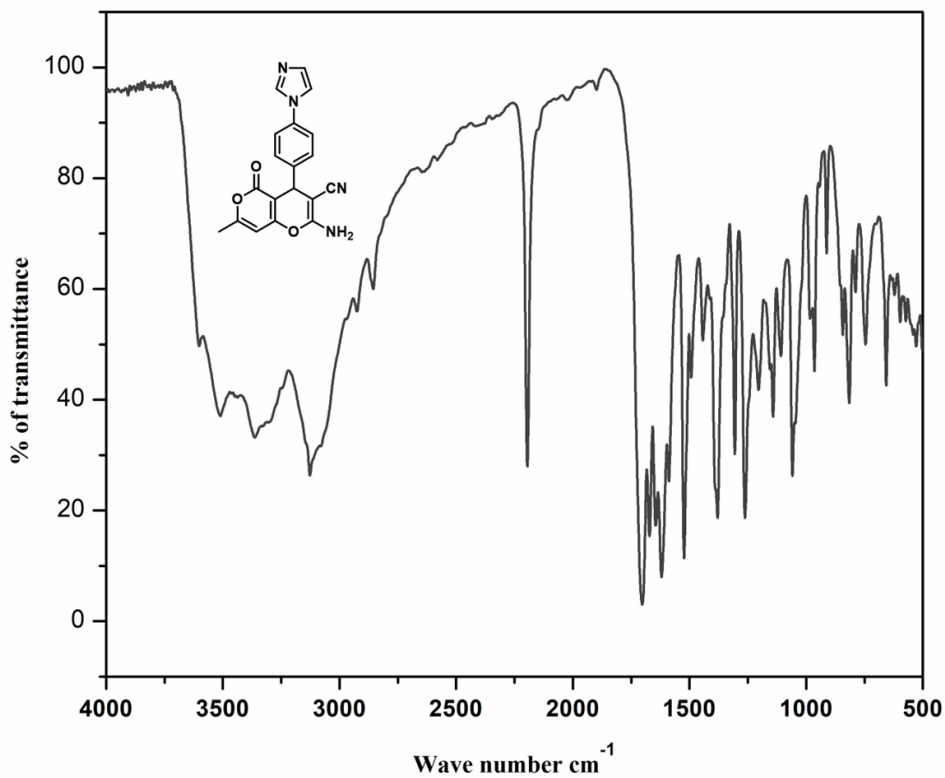


# $^1\text{H}$ NMR and $^{13}\text{C}$ NMR Spectrum of compound **8b**

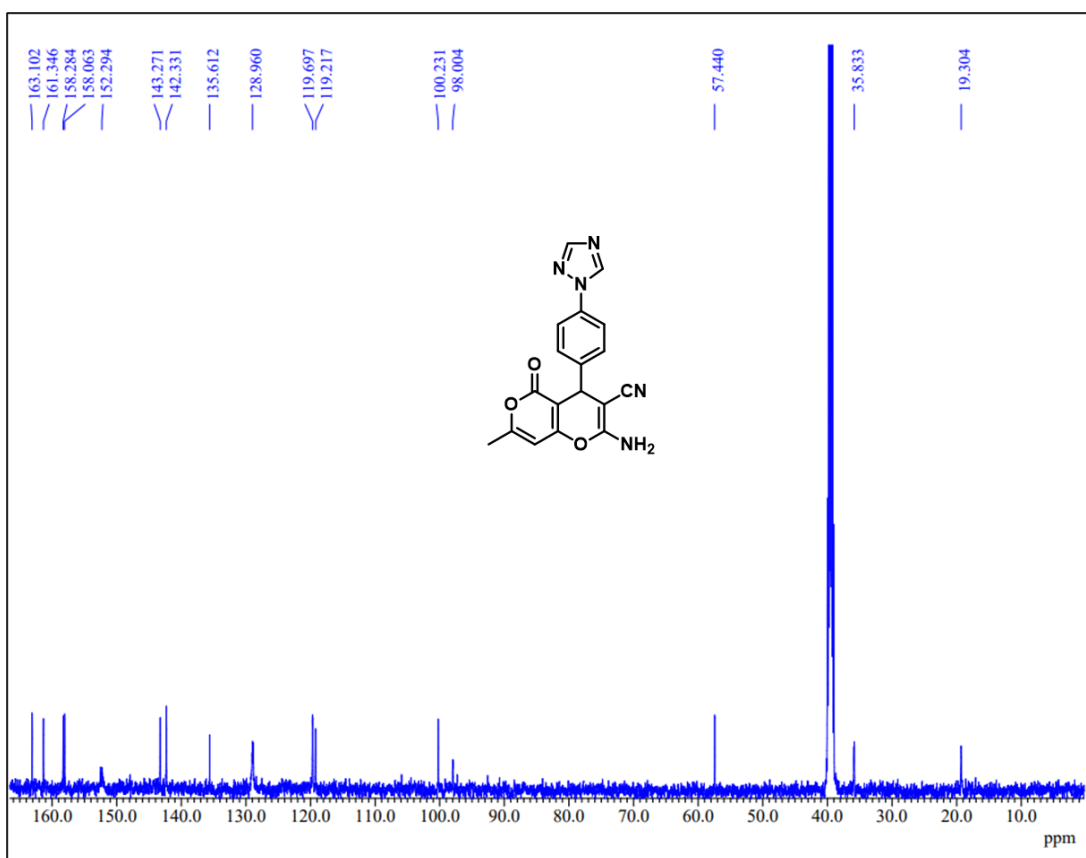
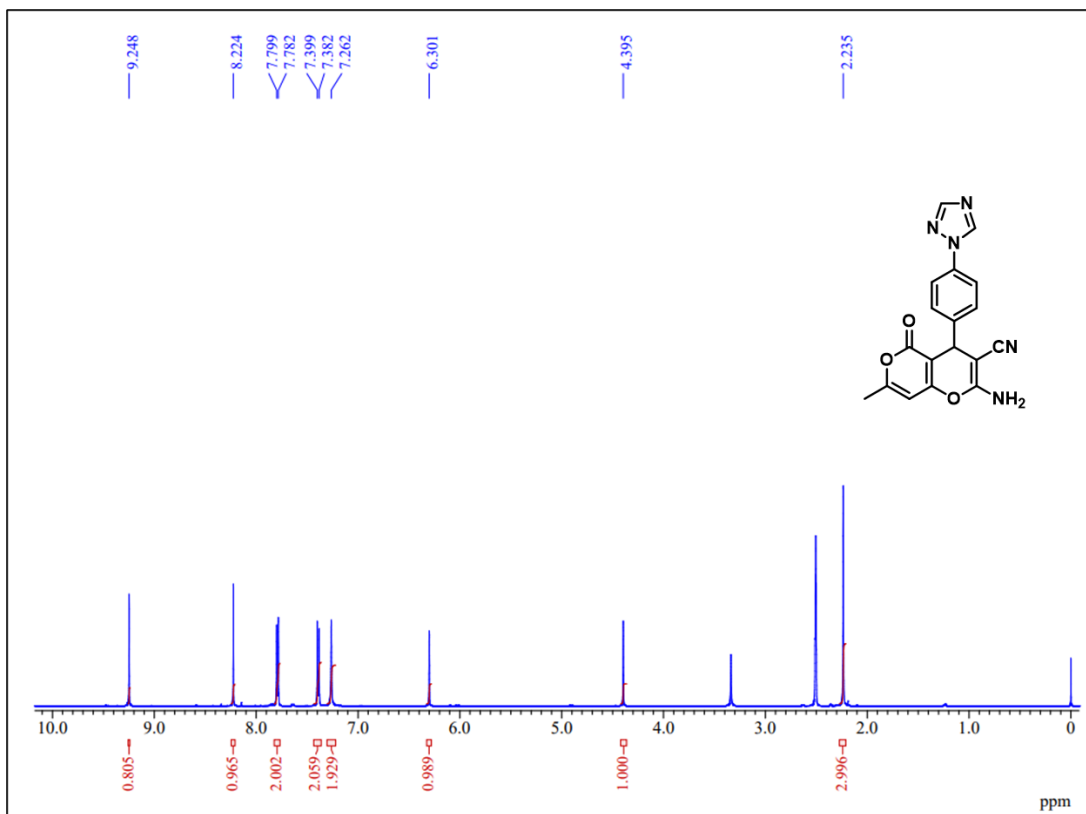




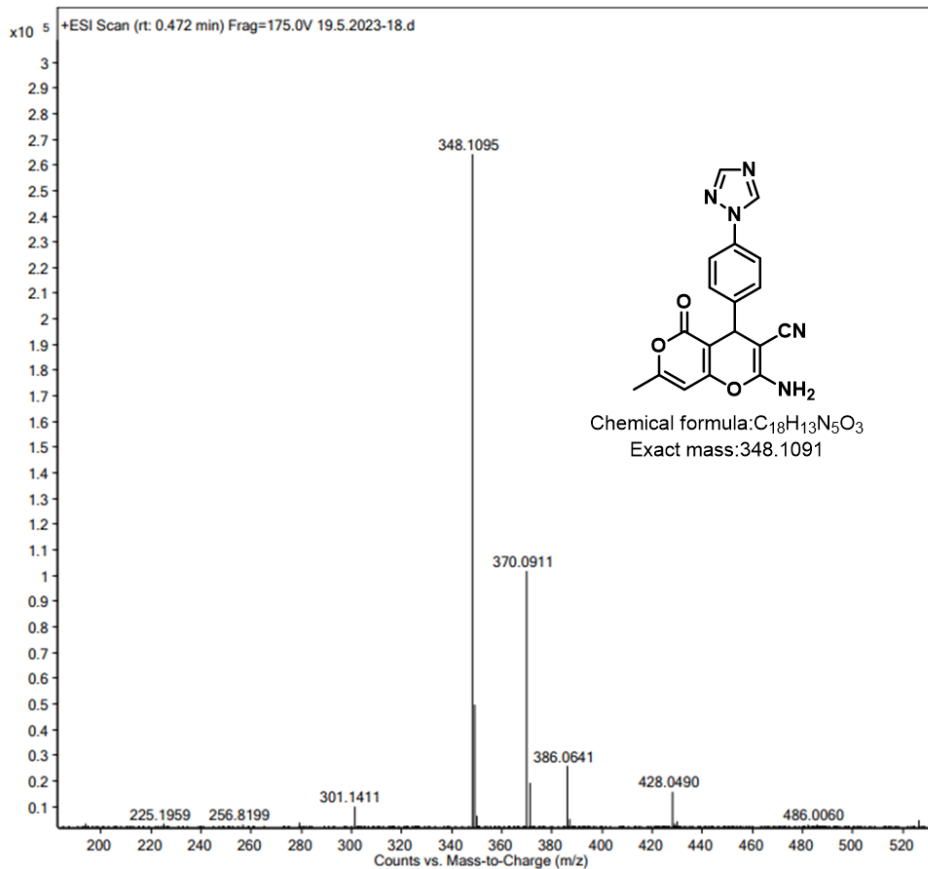
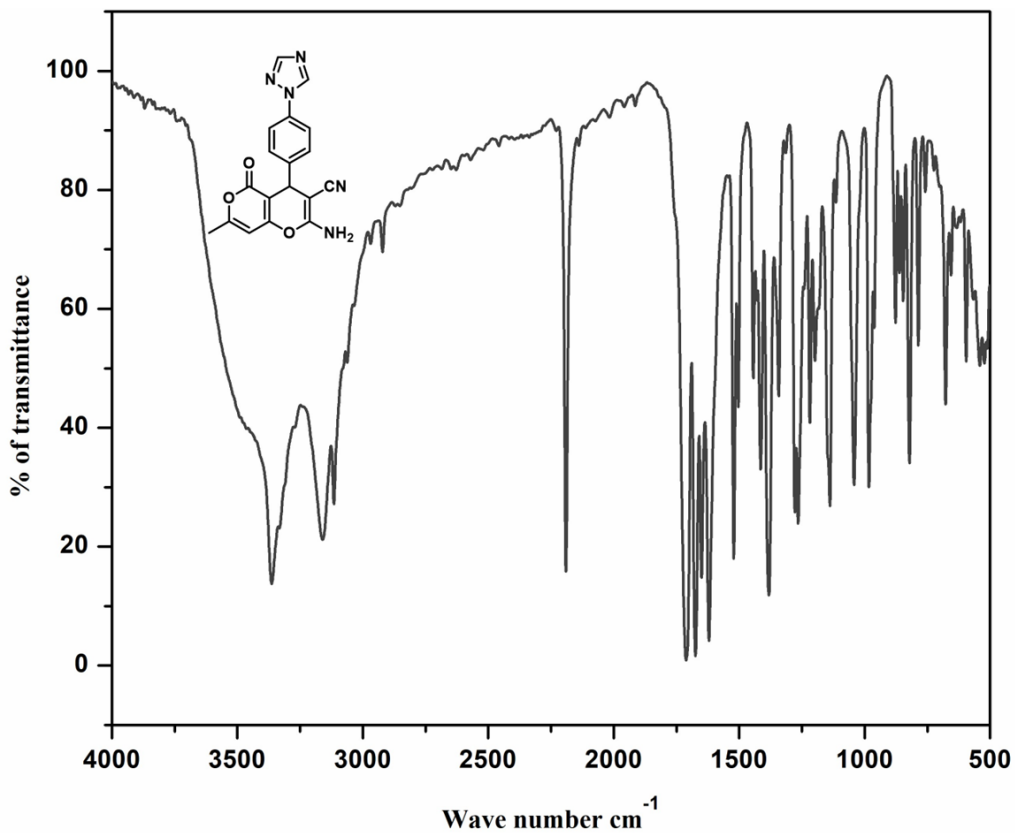
# FTIR and HRMS Spectrum of compound **8b**



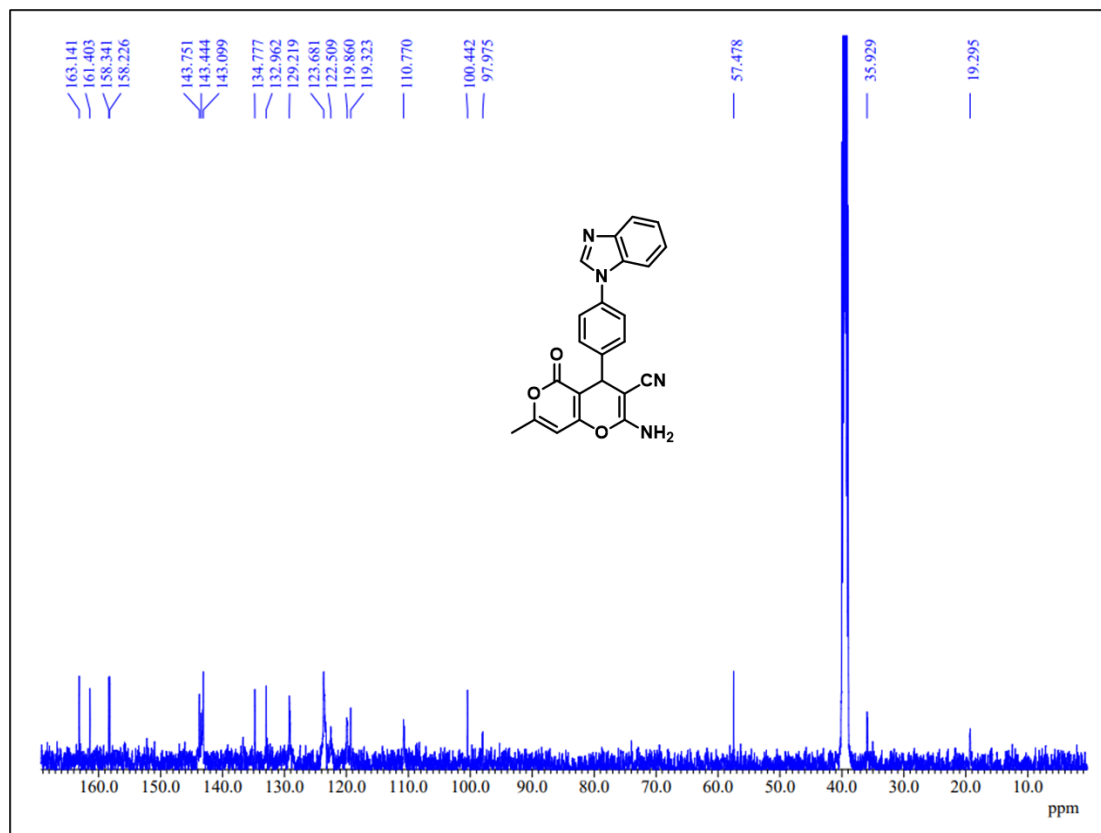
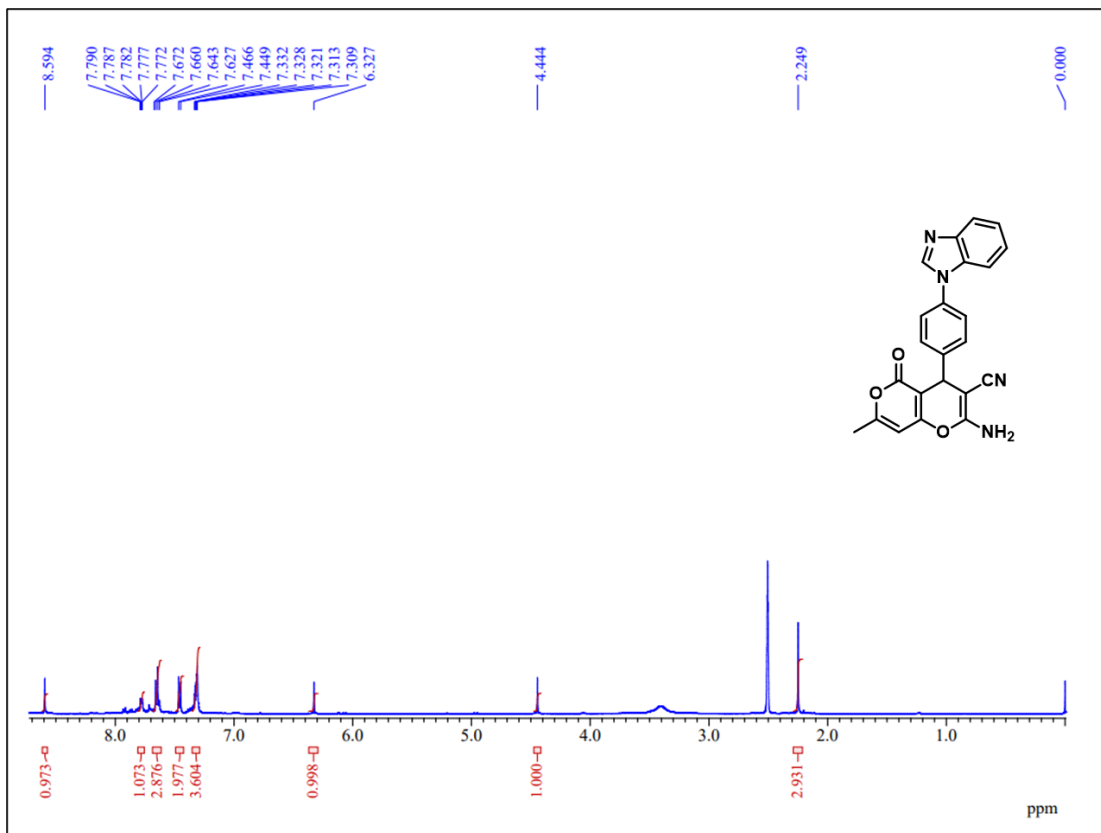
# $^1\text{H}$ NMR and $^{13}\text{C}$ NMR Spectrum of compound **8C**



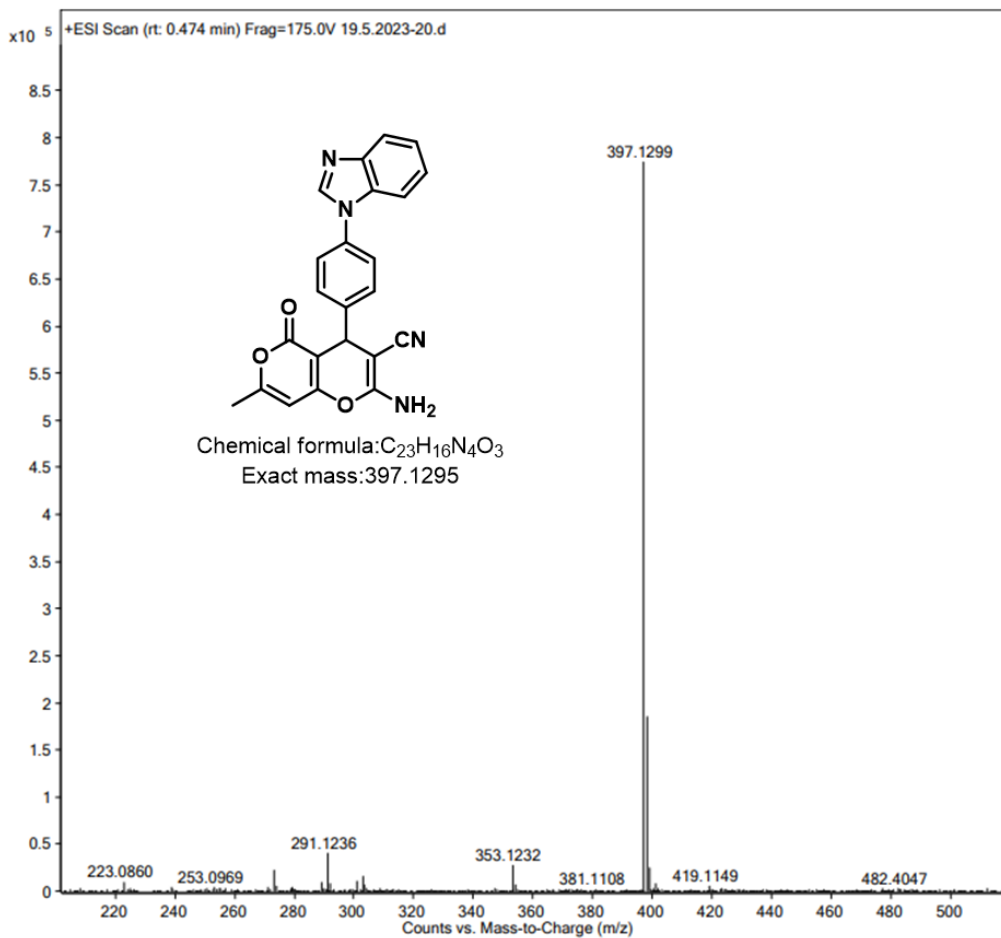
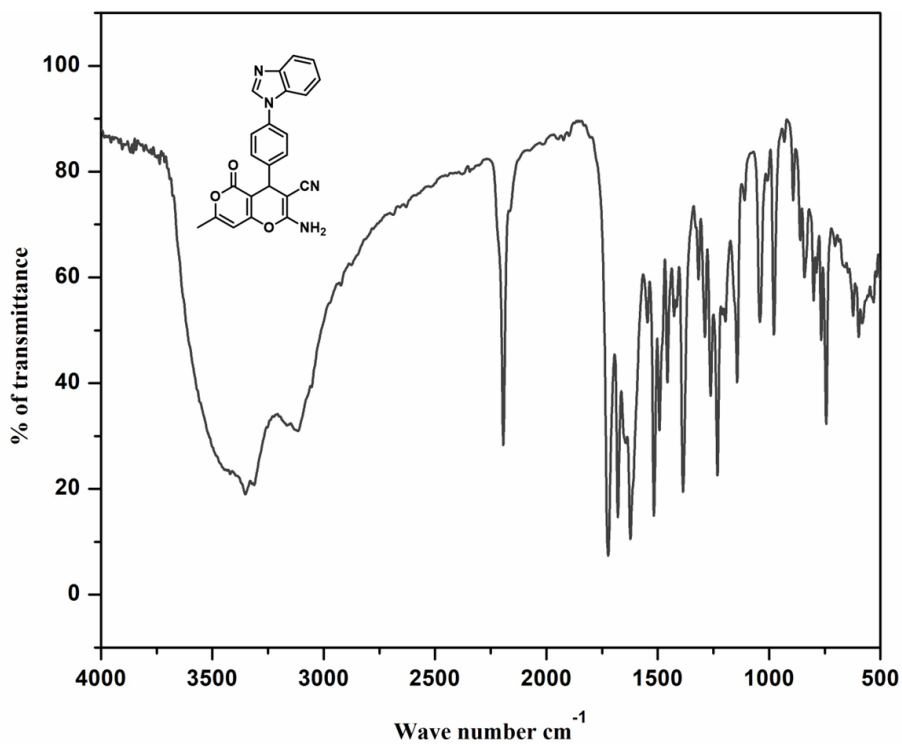
# FTIR and HRMS Spectrum of compound **8c**



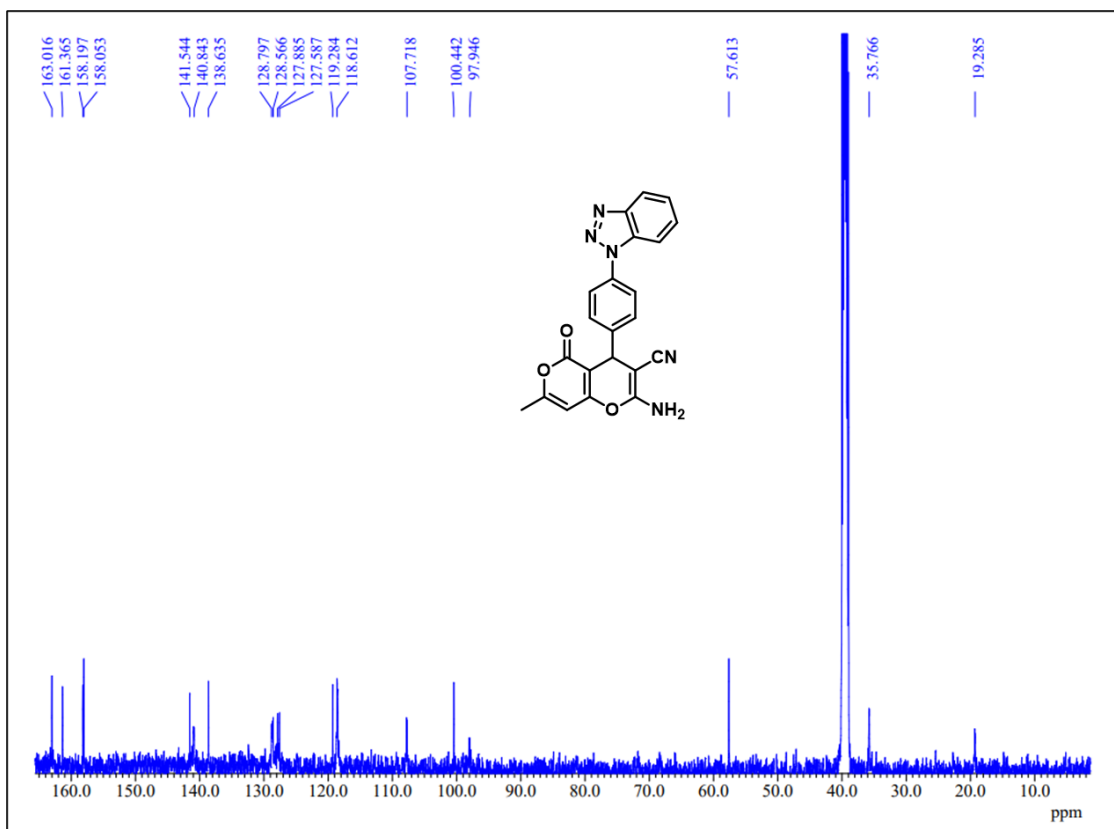
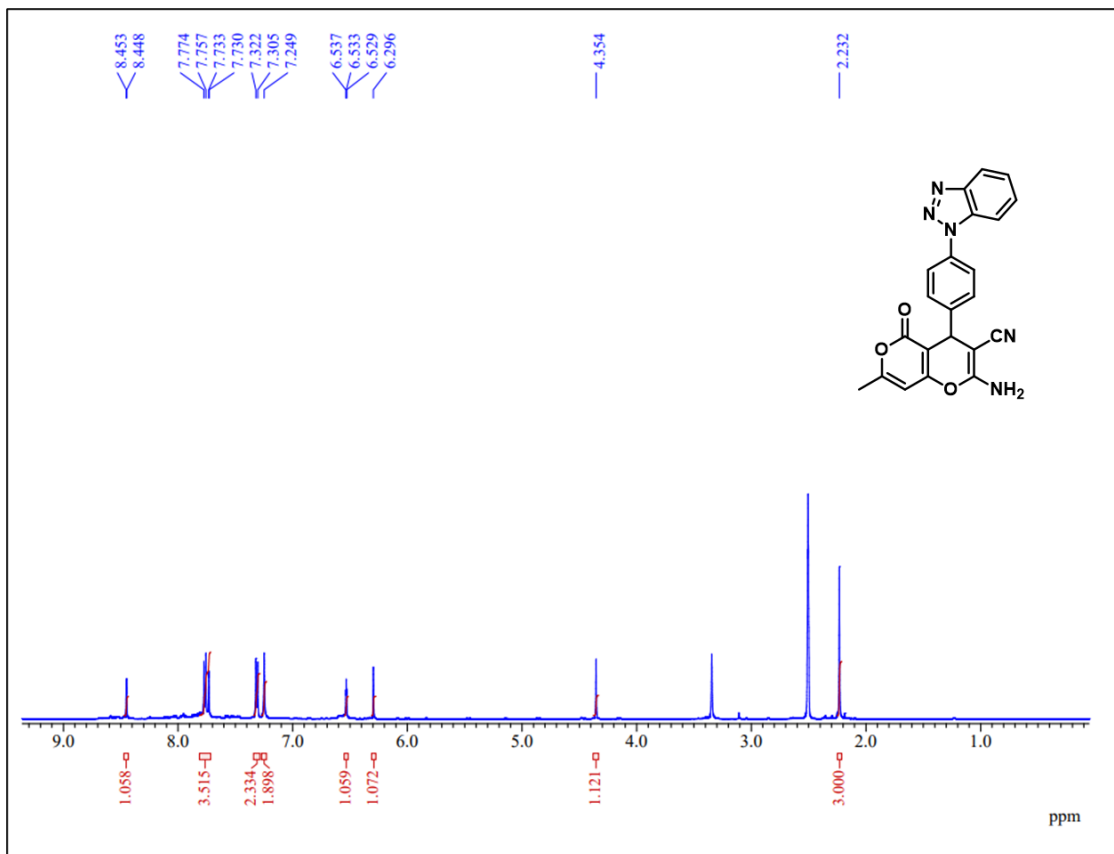
# $^1\text{H}$ NMR and $^{13}\text{C}$ NMR Spectrum of compound **8d**



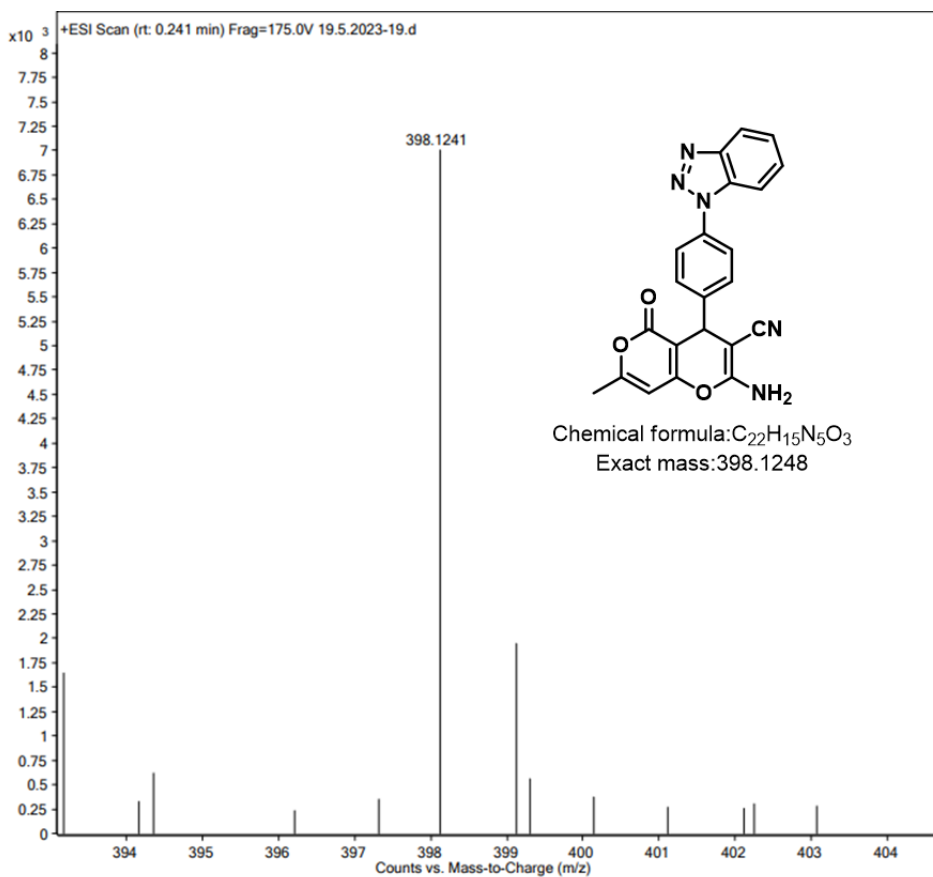
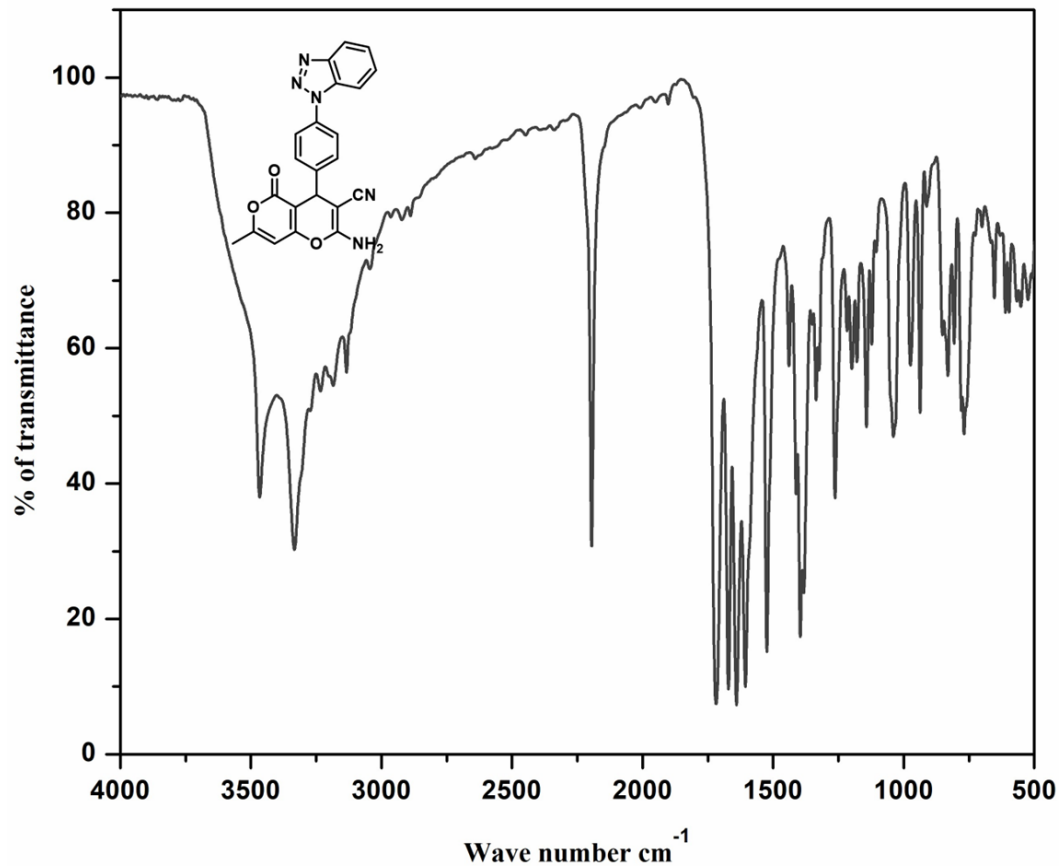
# FTIR and HRMS Spectrum of compound **8d**



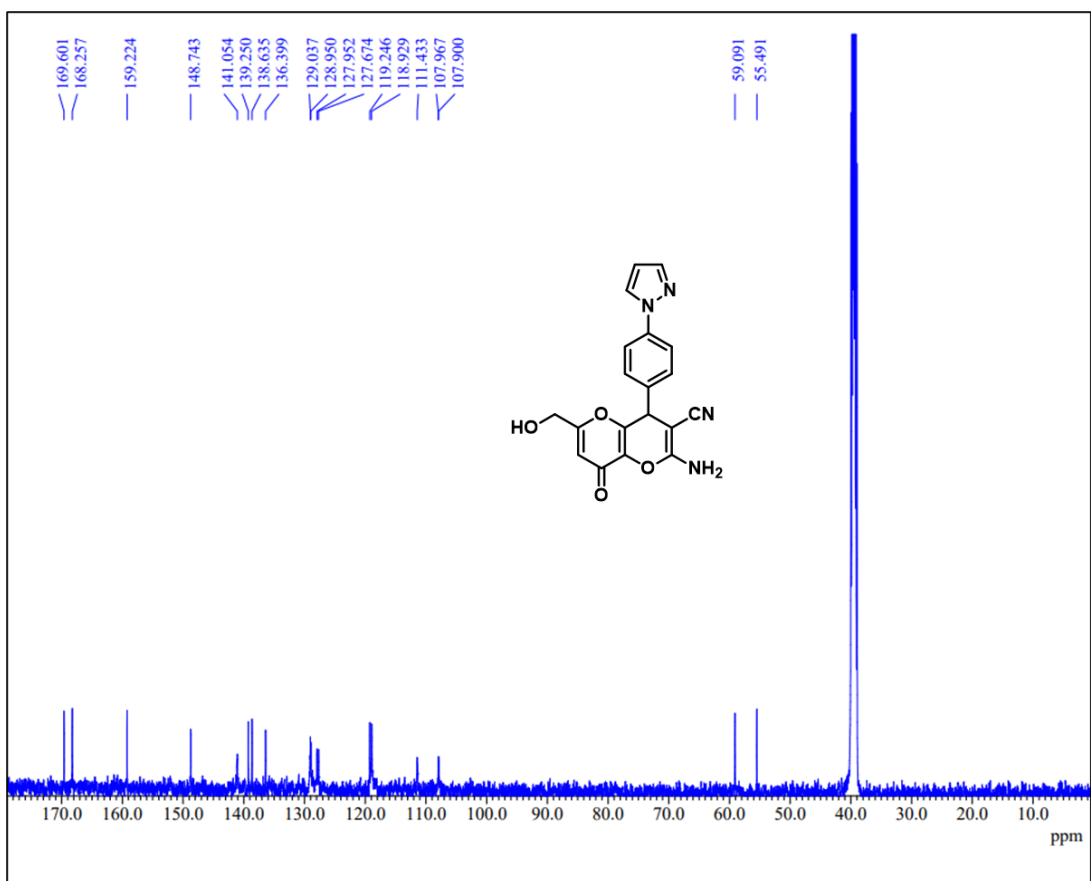
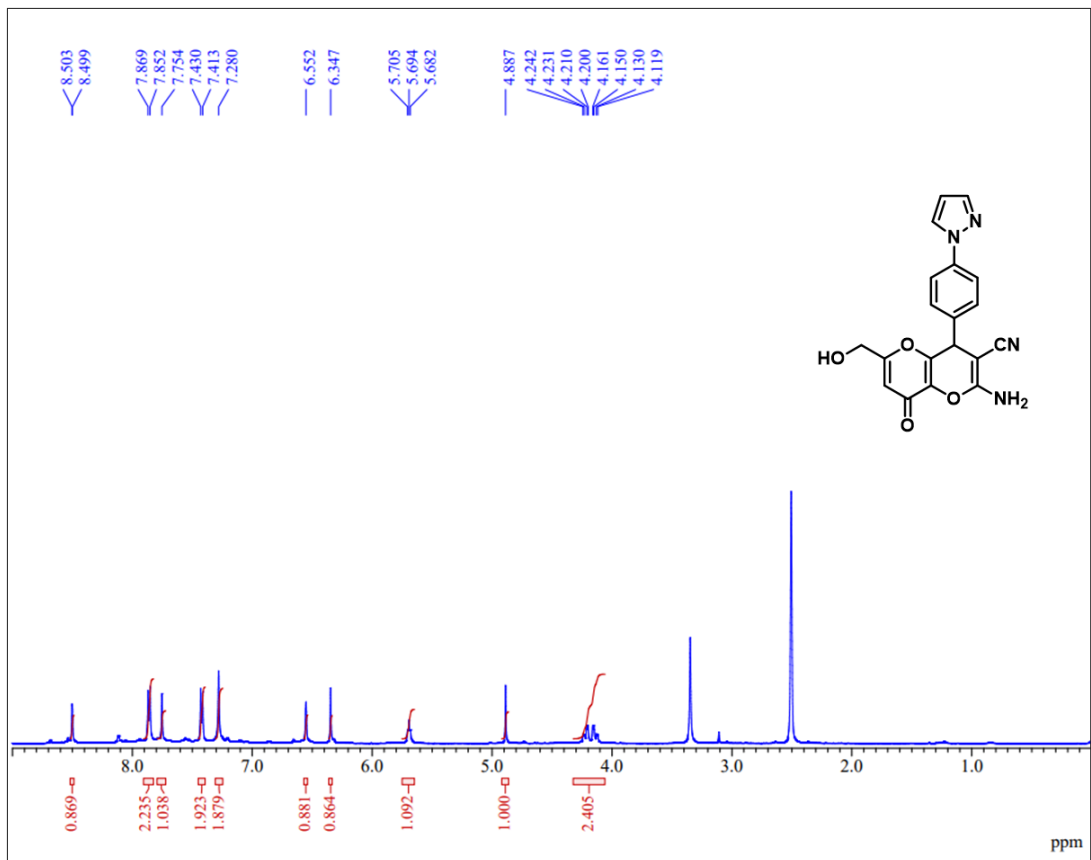
# $^1\text{H}$ NMR and $^{13}\text{C}$ NMR Spectrum of compound **8e**



# FTIR and HRMS Spectrum of compound **8e**

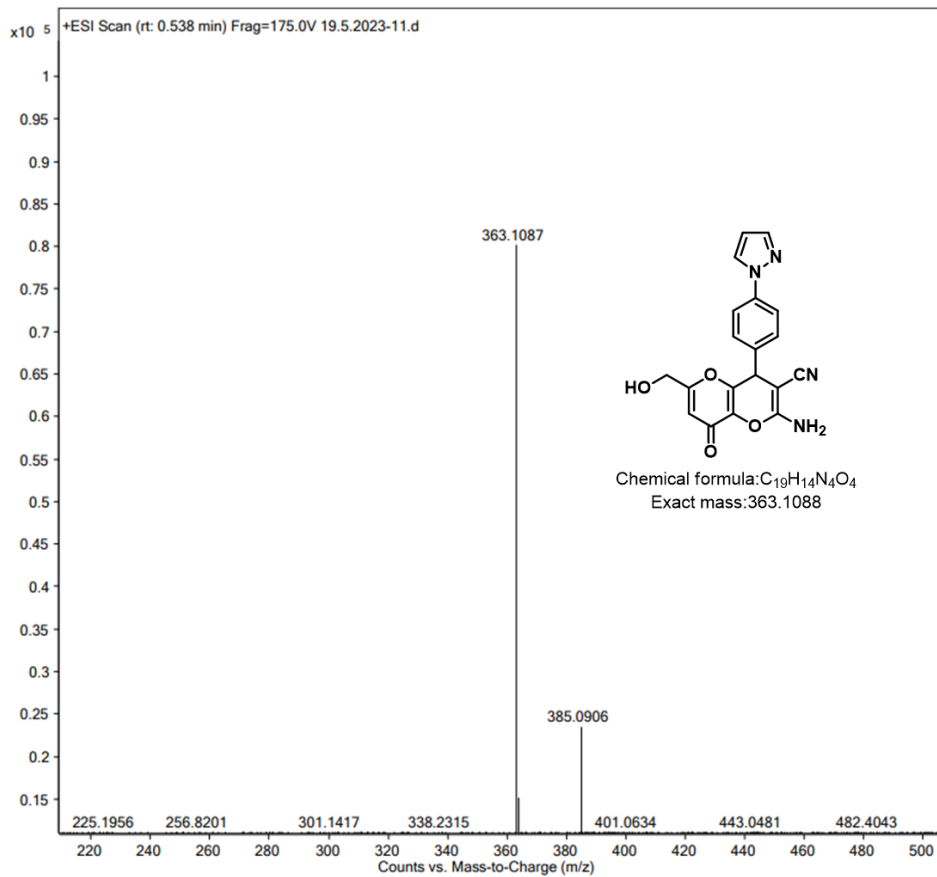
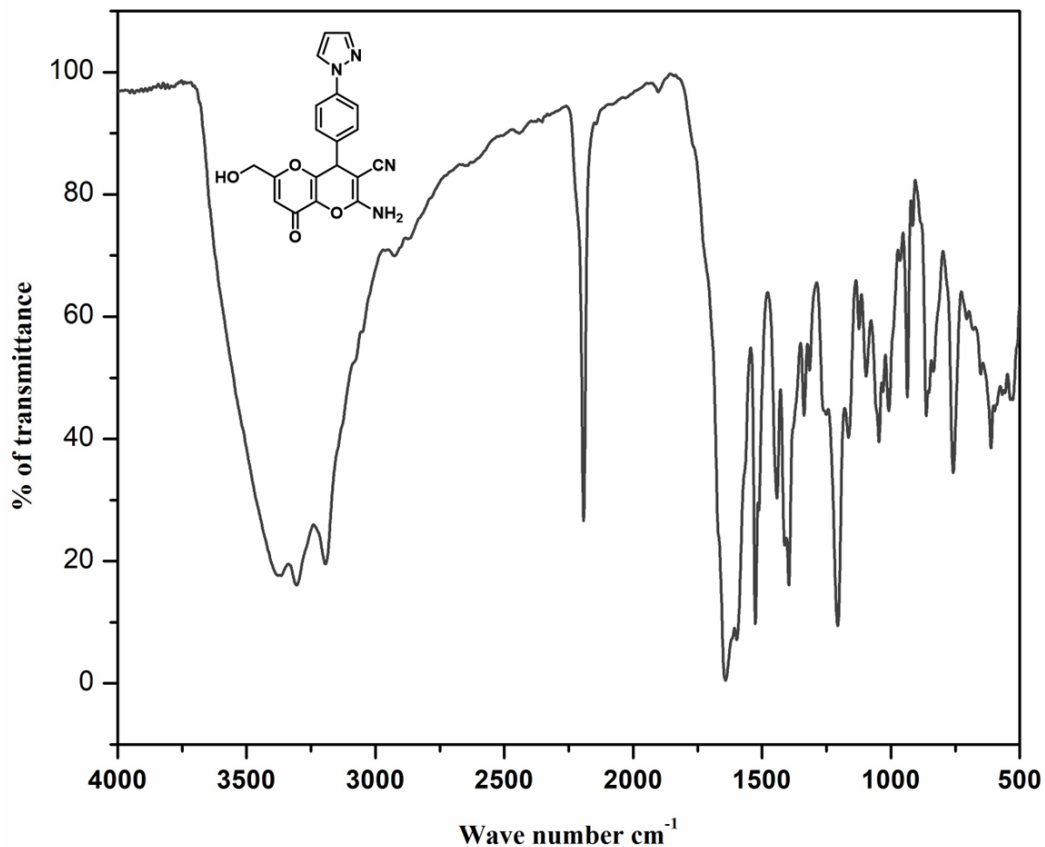


# $^1\text{H}$ NMR and $^{13}\text{C}$ NMR Spectrum of compound **10a**

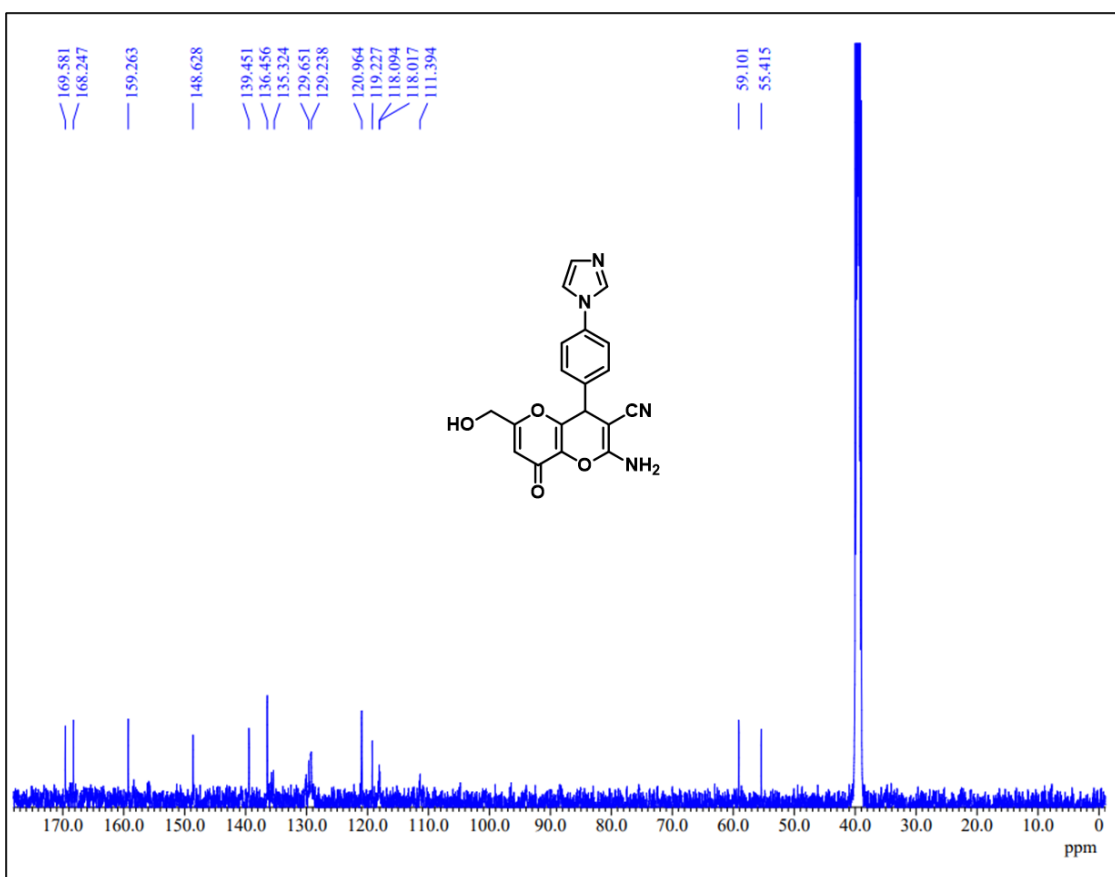
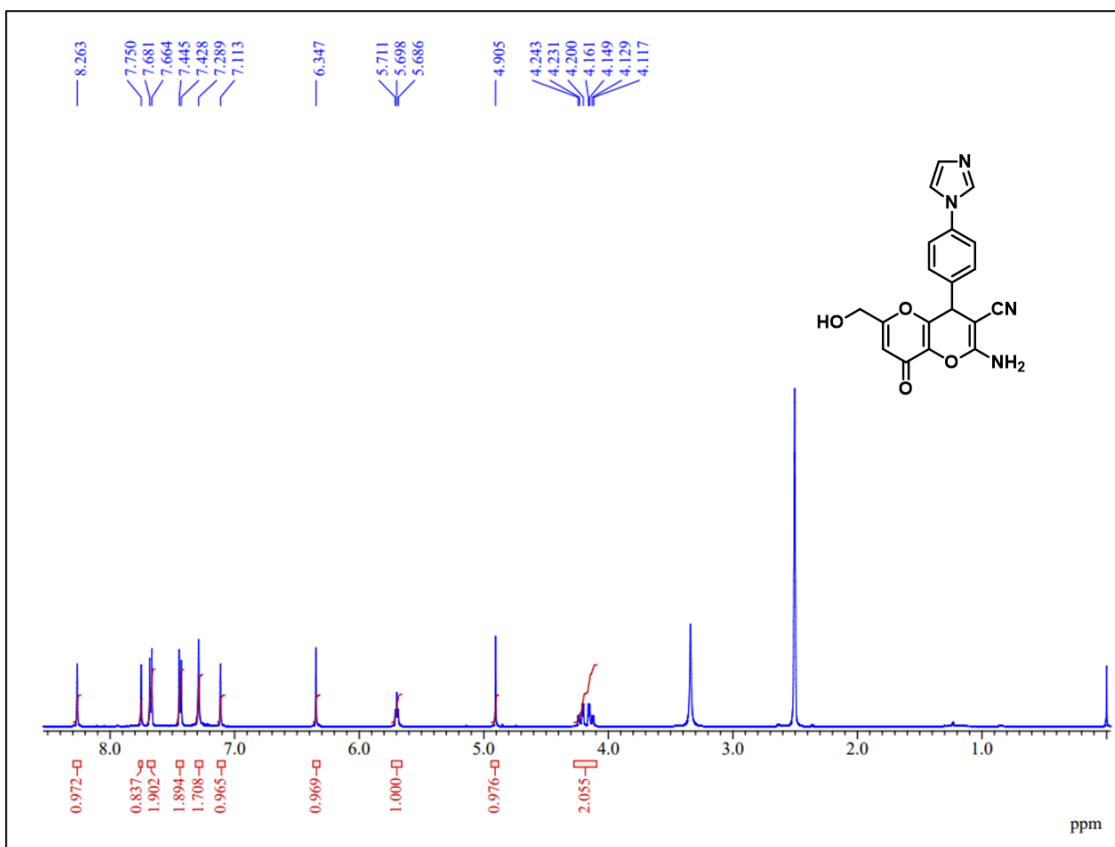




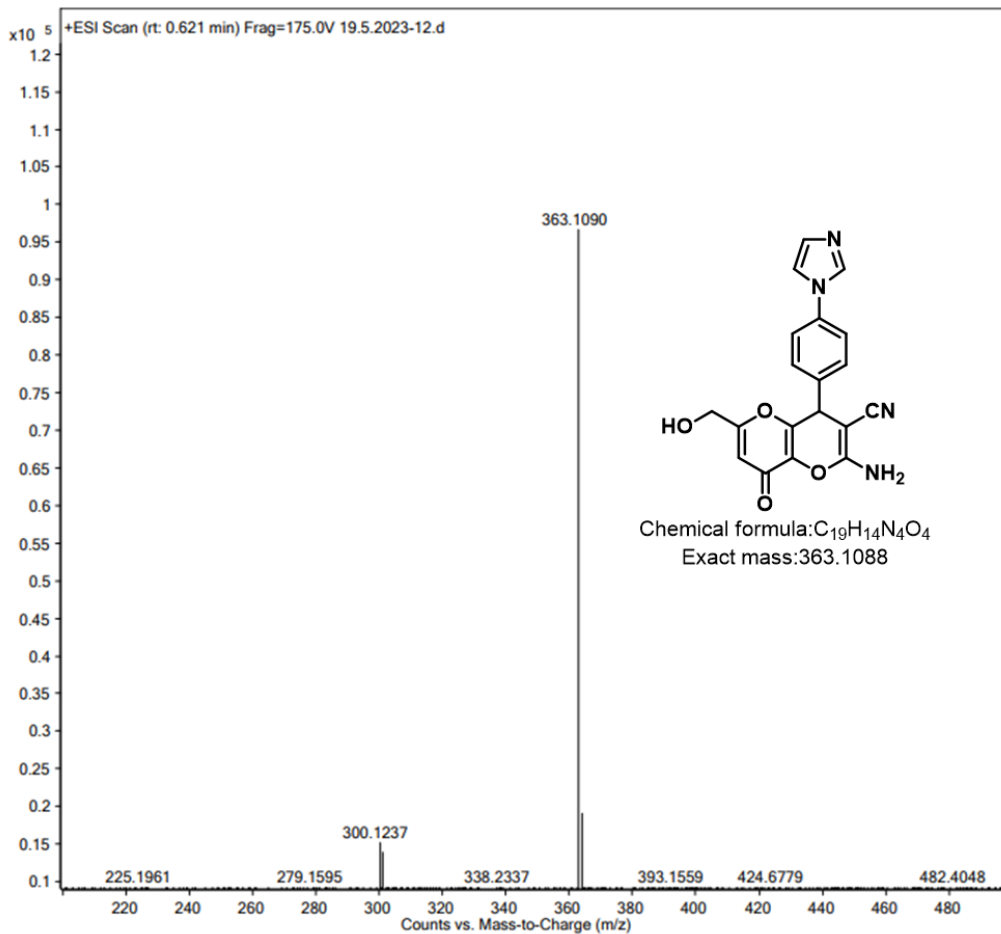
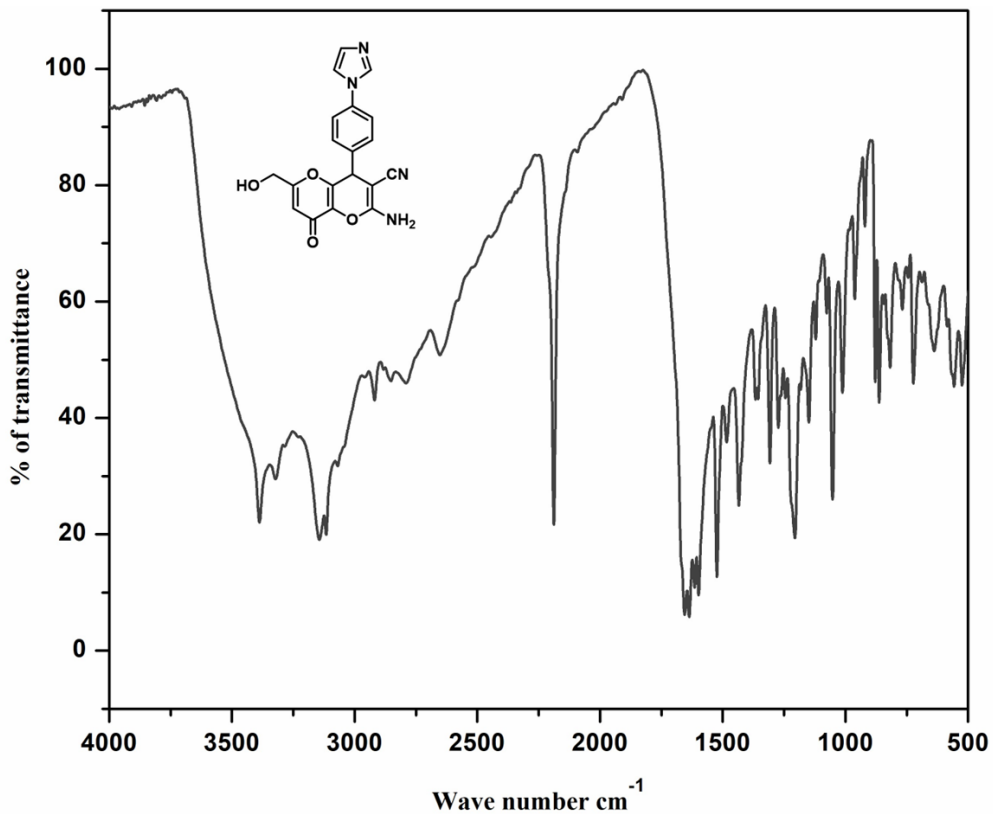
# FTIR and HRMS Spectrum of compound **10a**



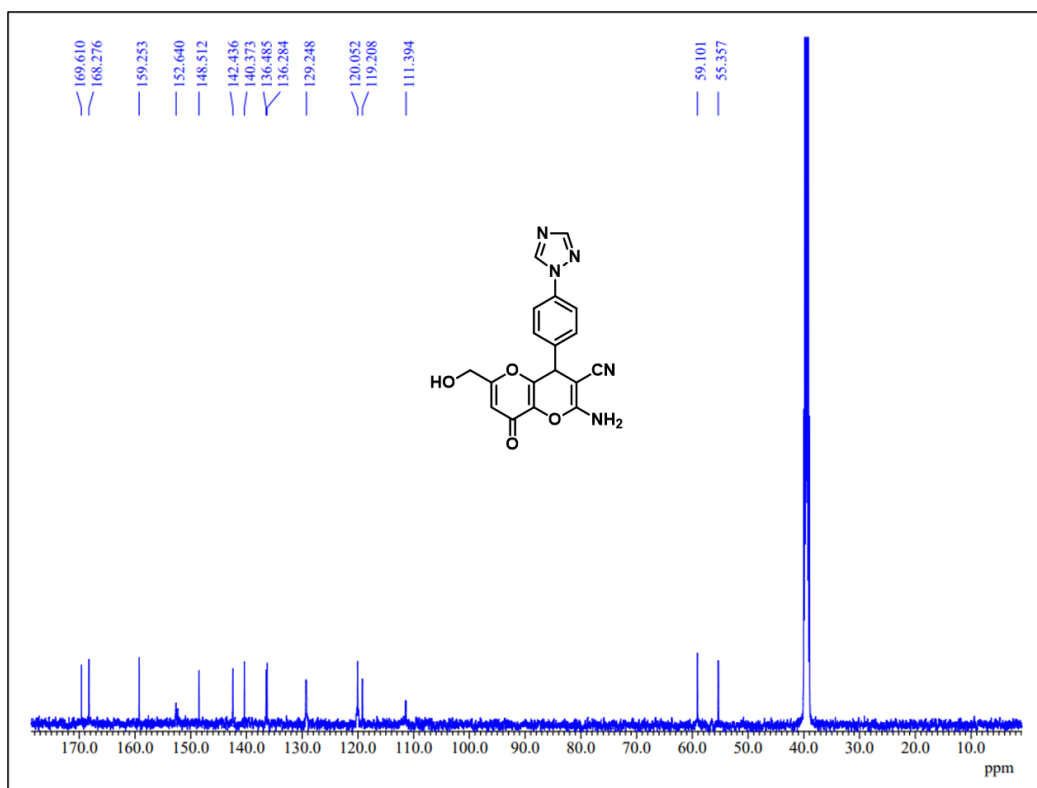
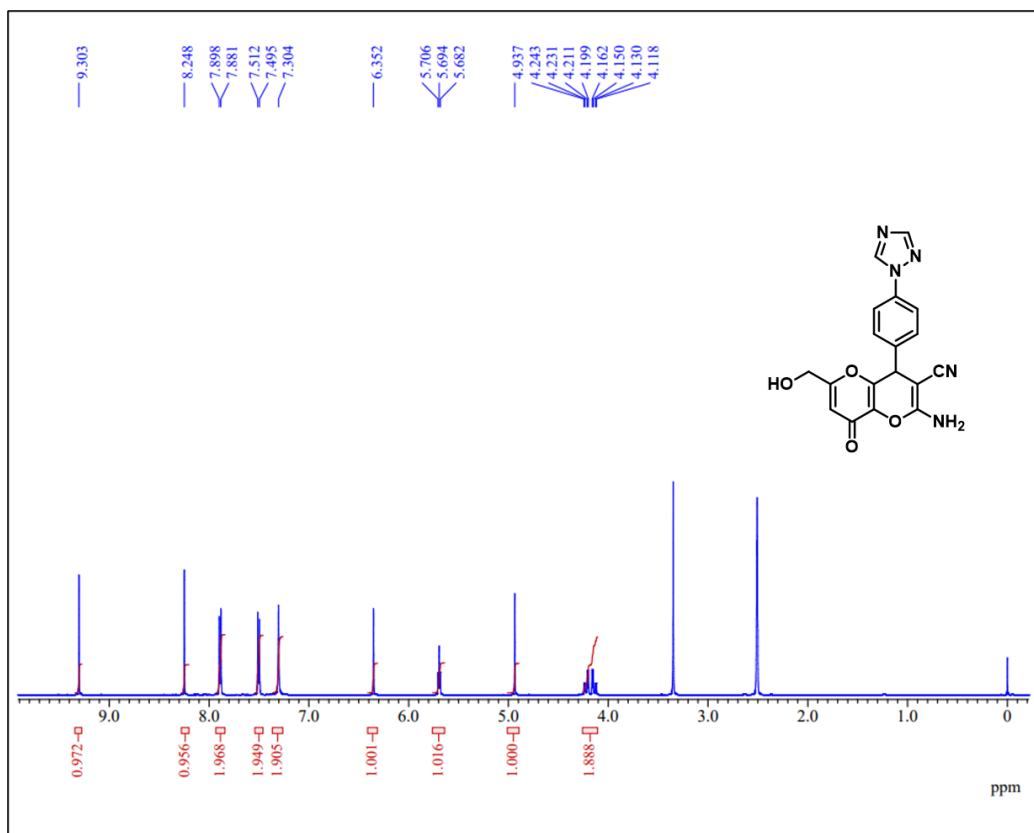
# $^1\text{H}$ NMR and $^{13}\text{C}$ NMR Spectrum of compound **10b**



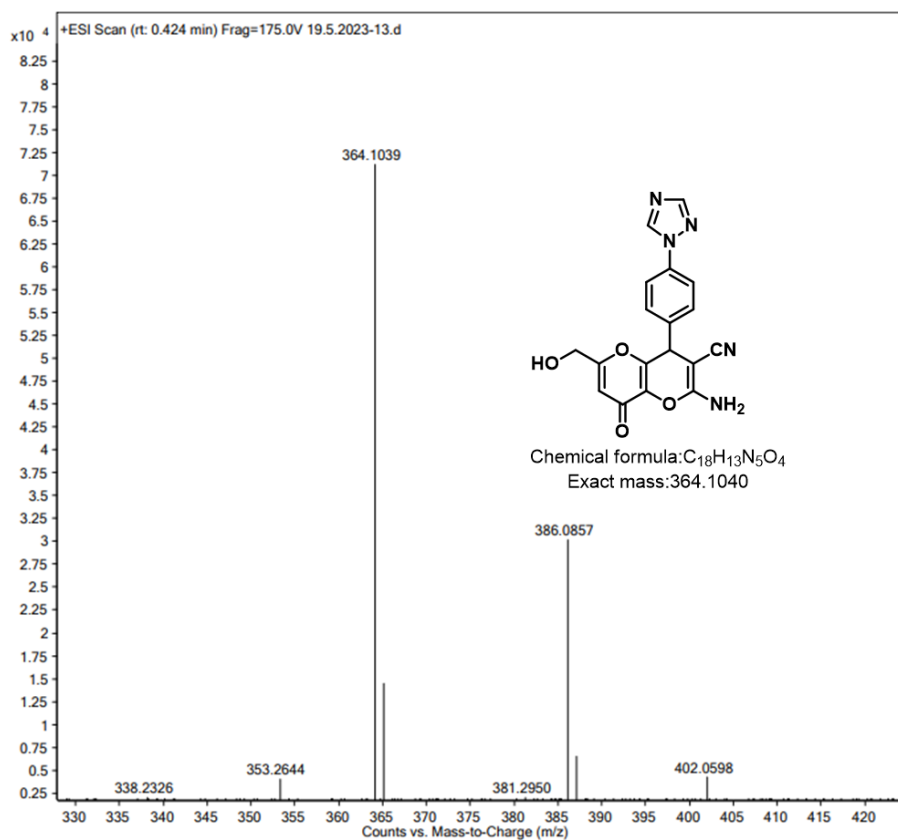
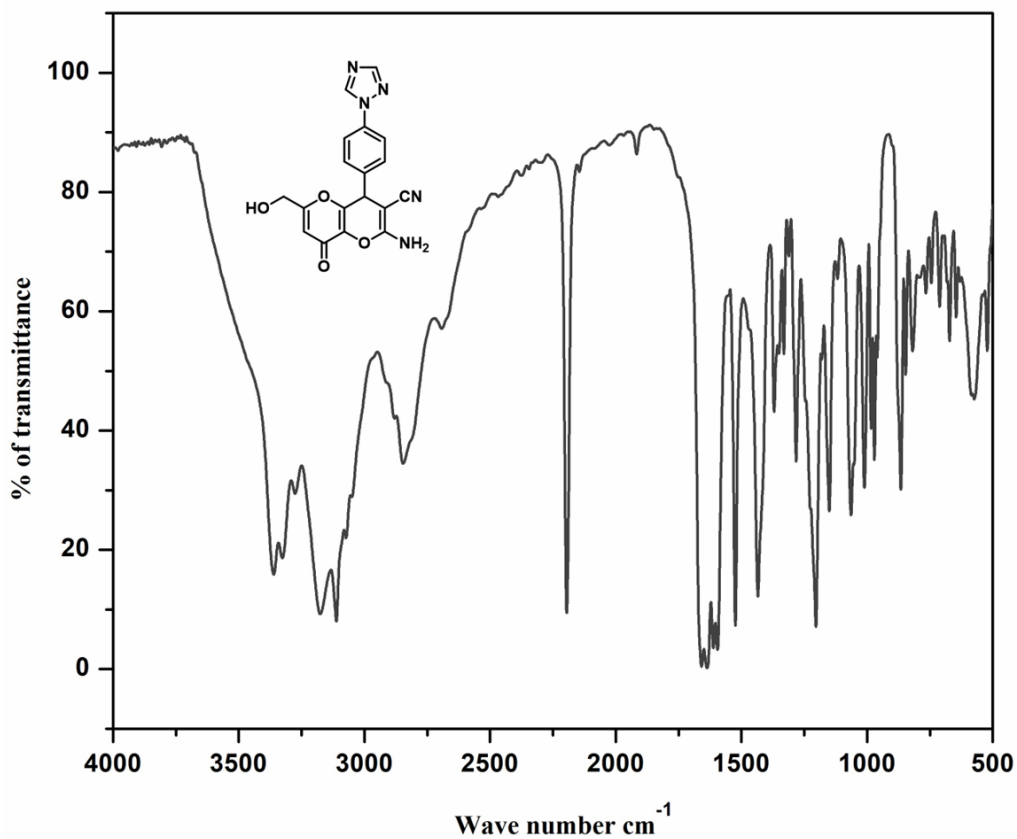
# FTIR and HRMS Spectrum of compound **10b**



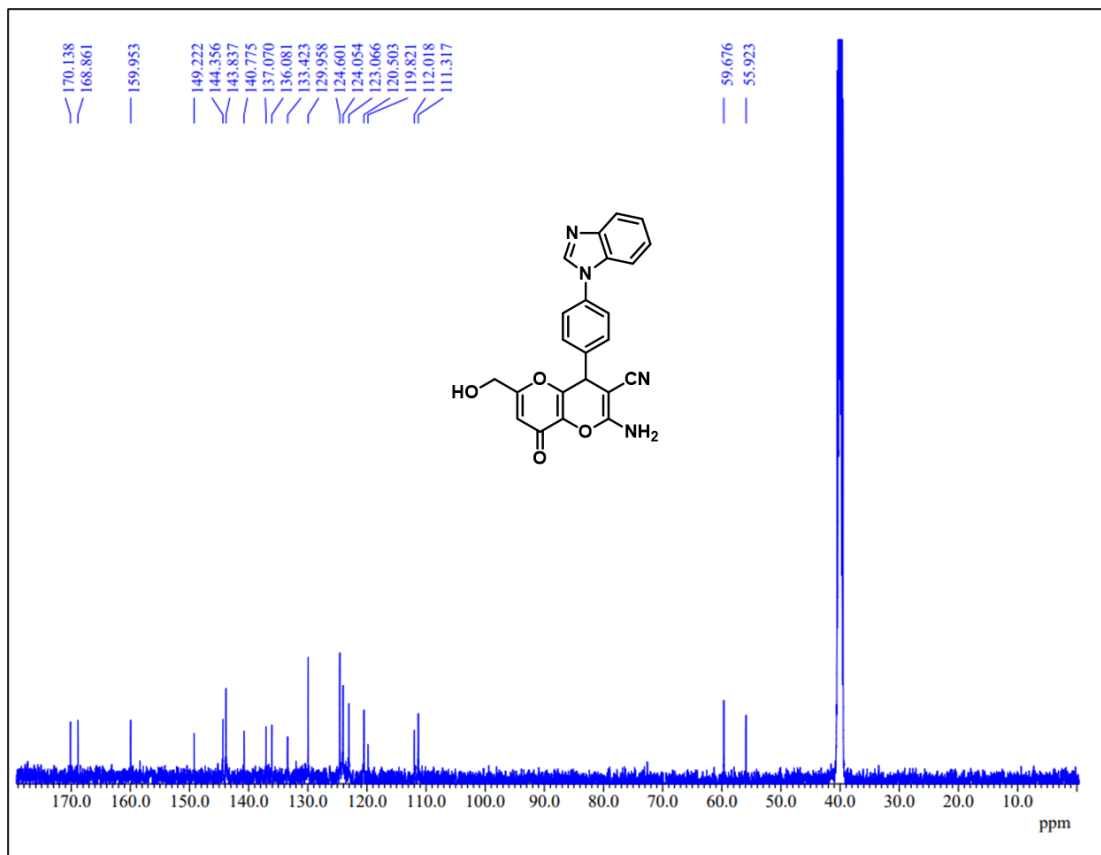
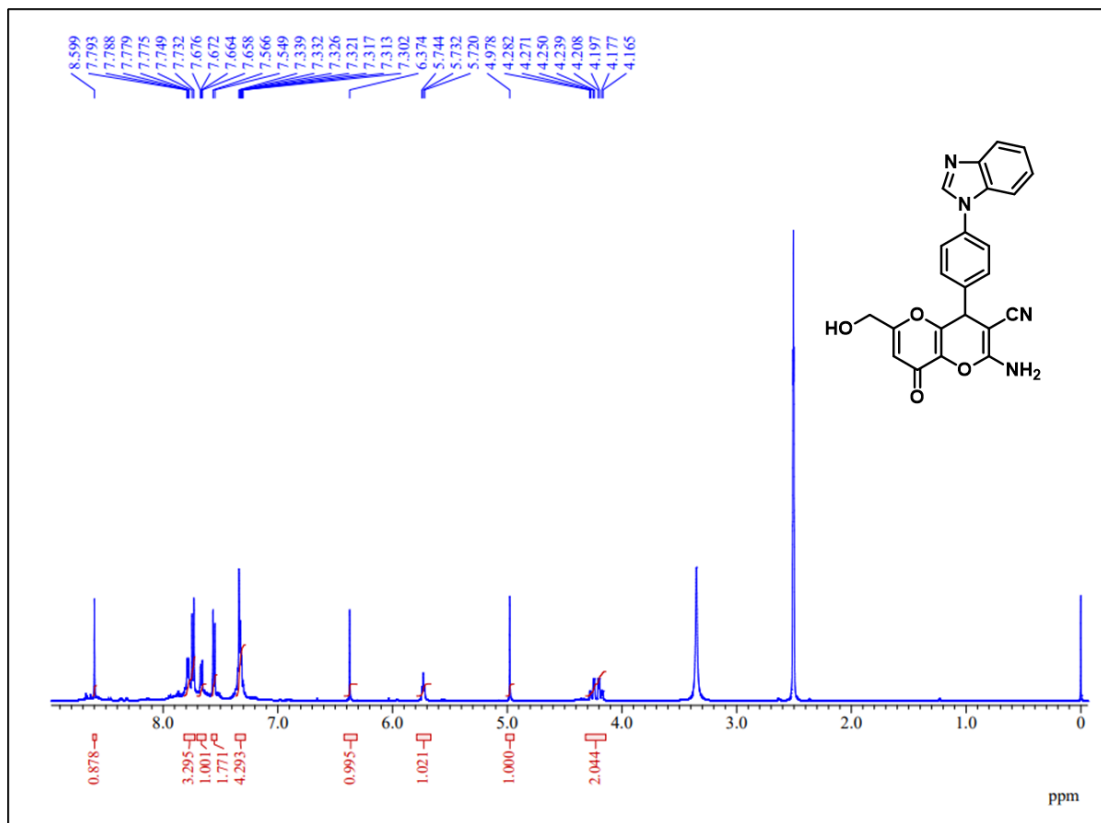
# $^1\text{H}$ NMR and $^{13}\text{C}$ NMR Spectrum of compound **10c**



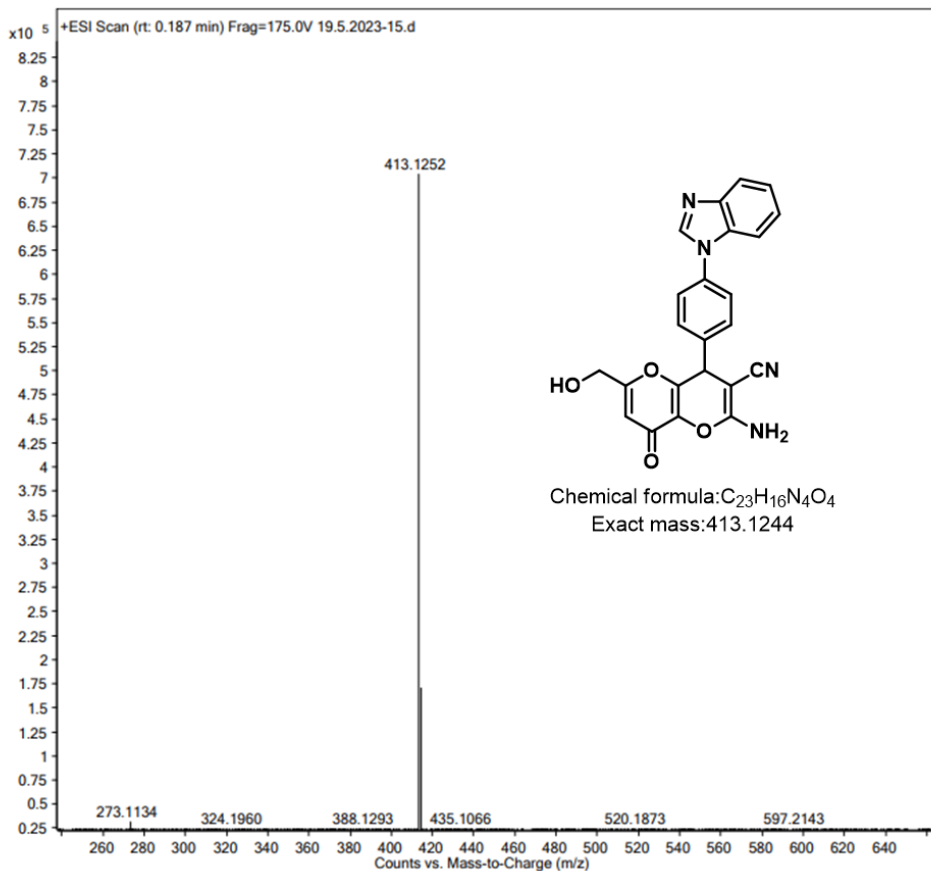
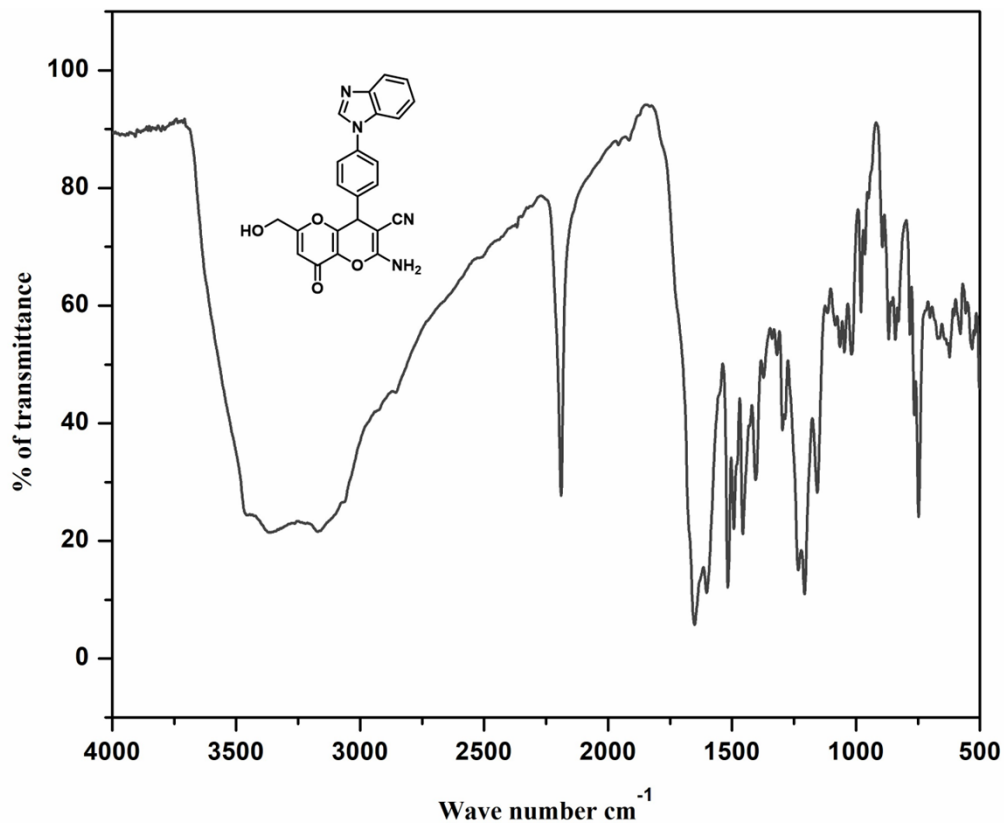
# FTIR and HRMS Spectrum of compound **10c**



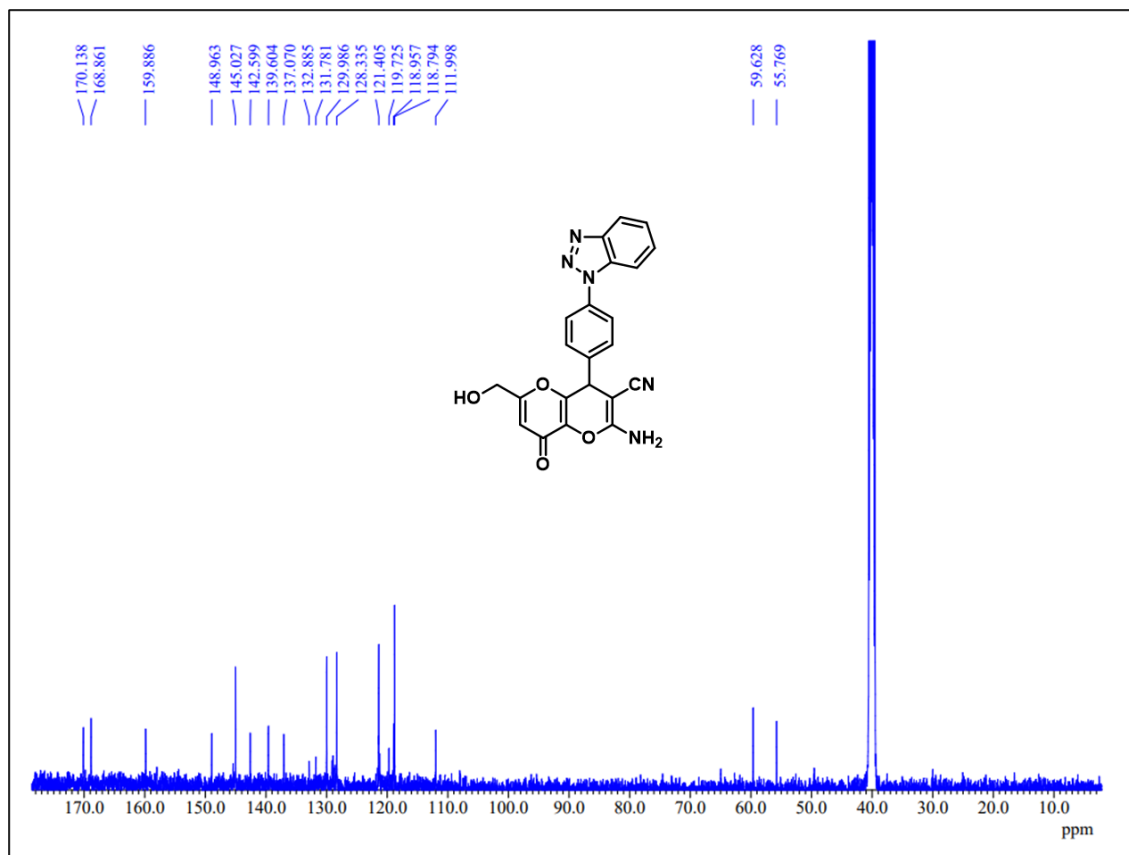
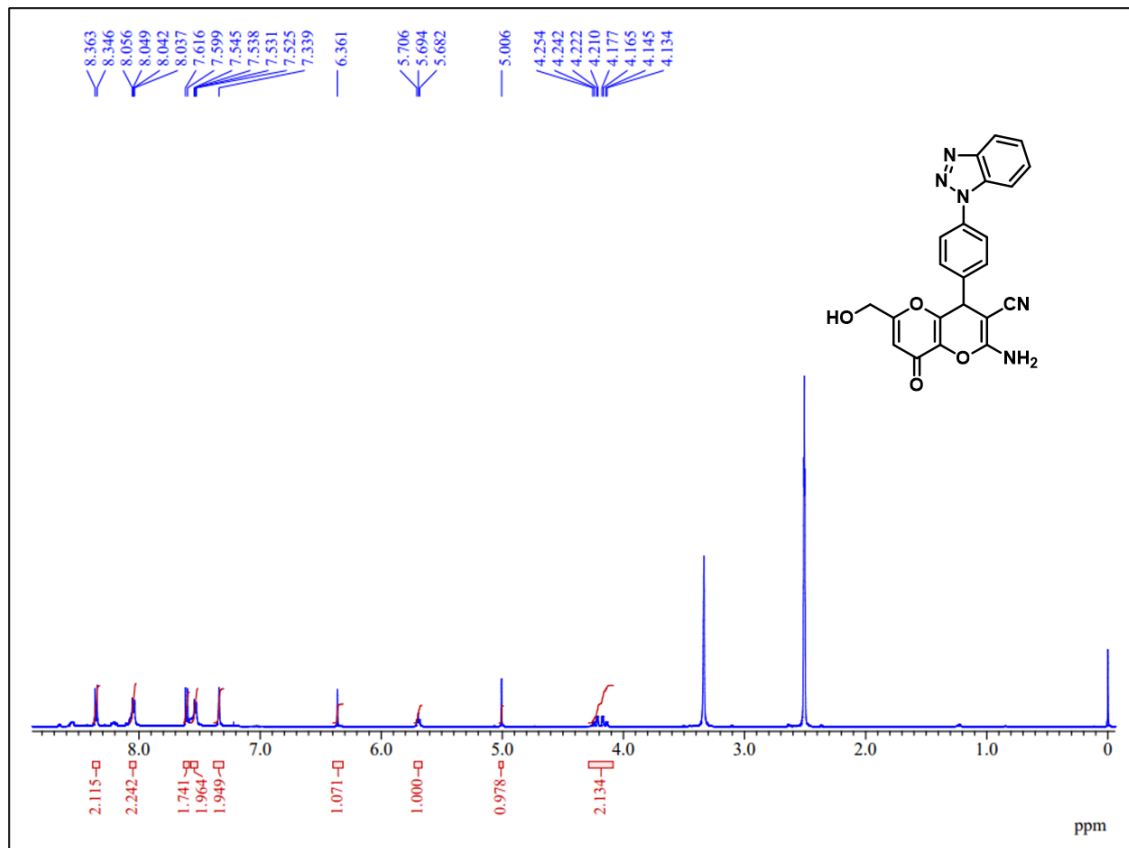
# $^1\text{H}$ NMR and $^{13}\text{C}$ NMR Spectrum of compound **10d**



# FTIR and HRMS Spectrum of compound **10d**

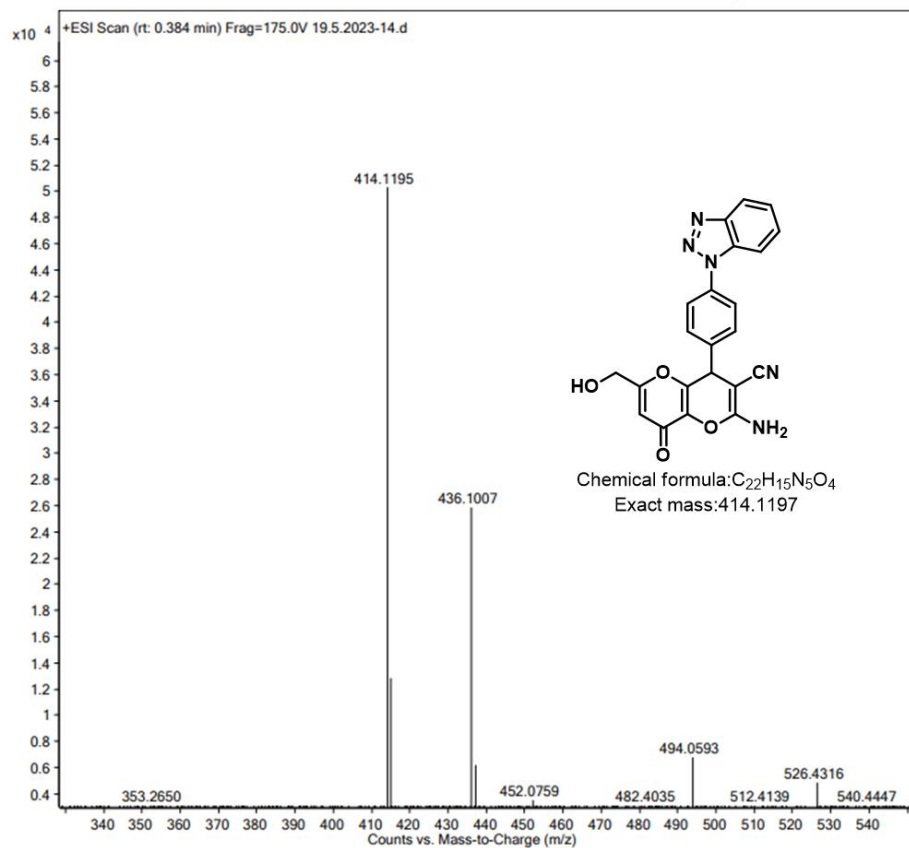
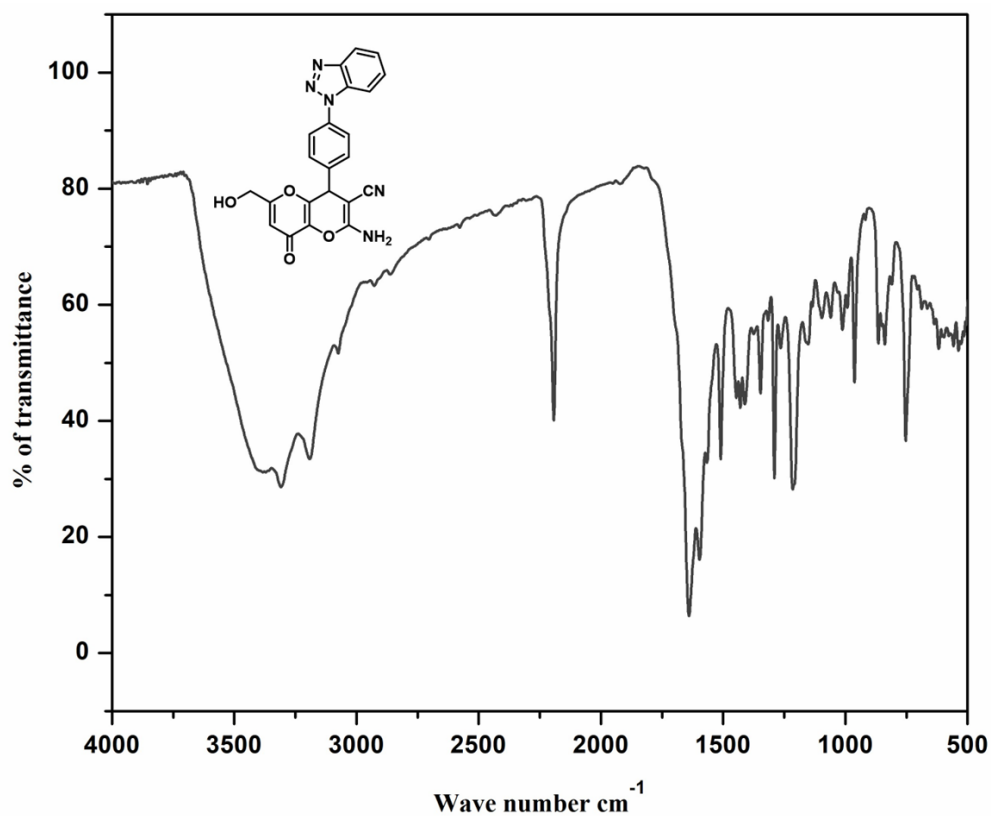


# $^1\text{H}$ NMR and $^{13}\text{C}$ NMR Spectrum of compound **10e**

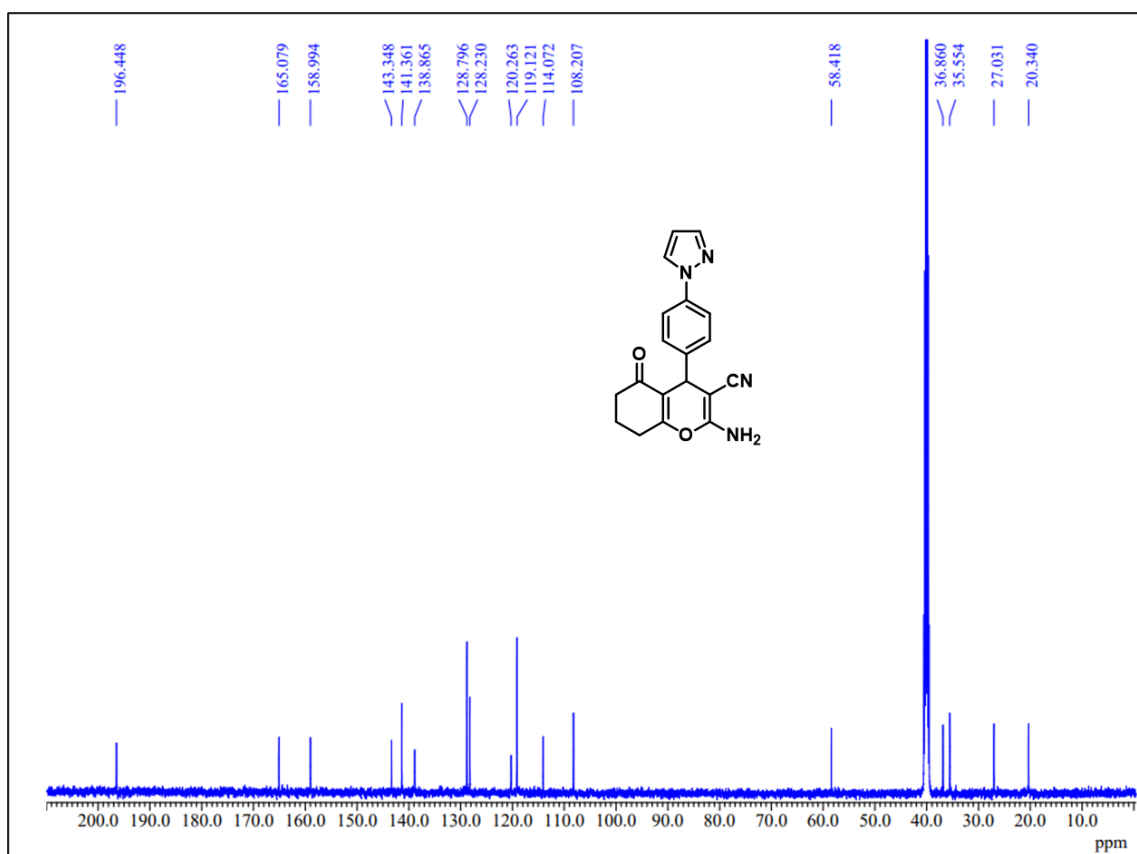
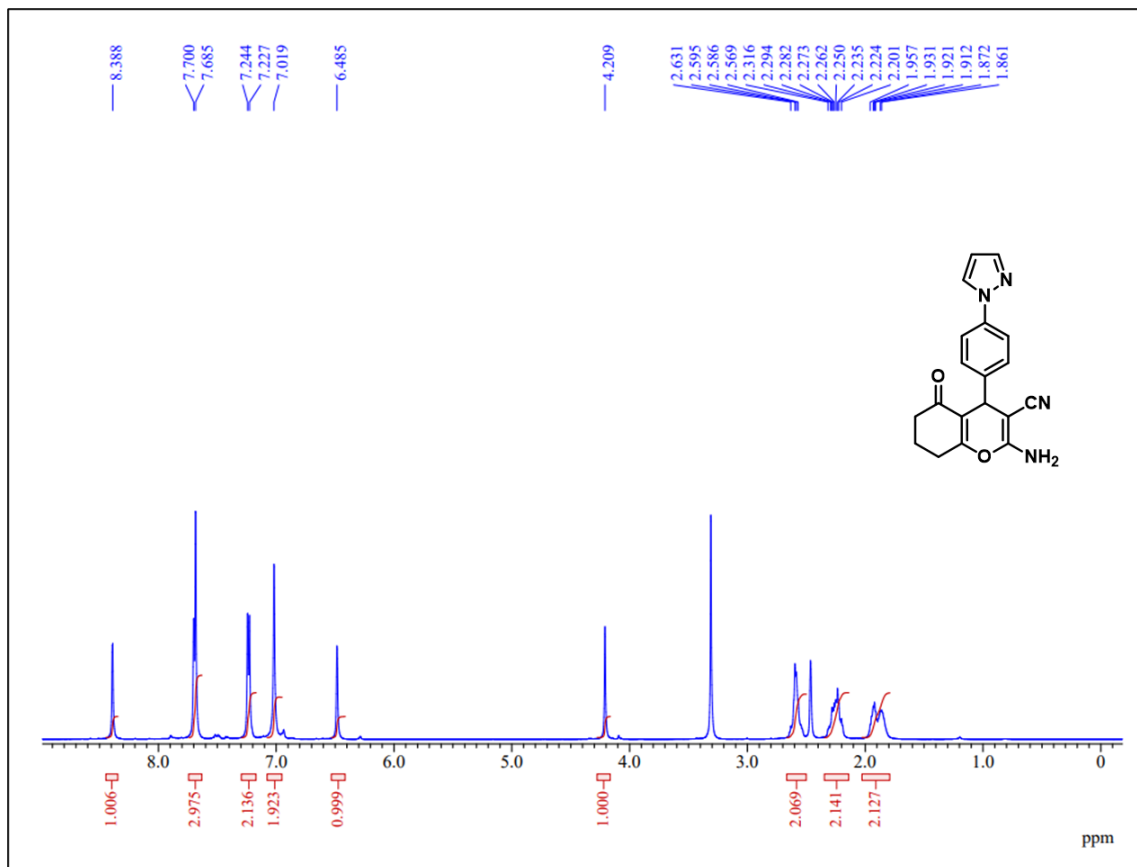




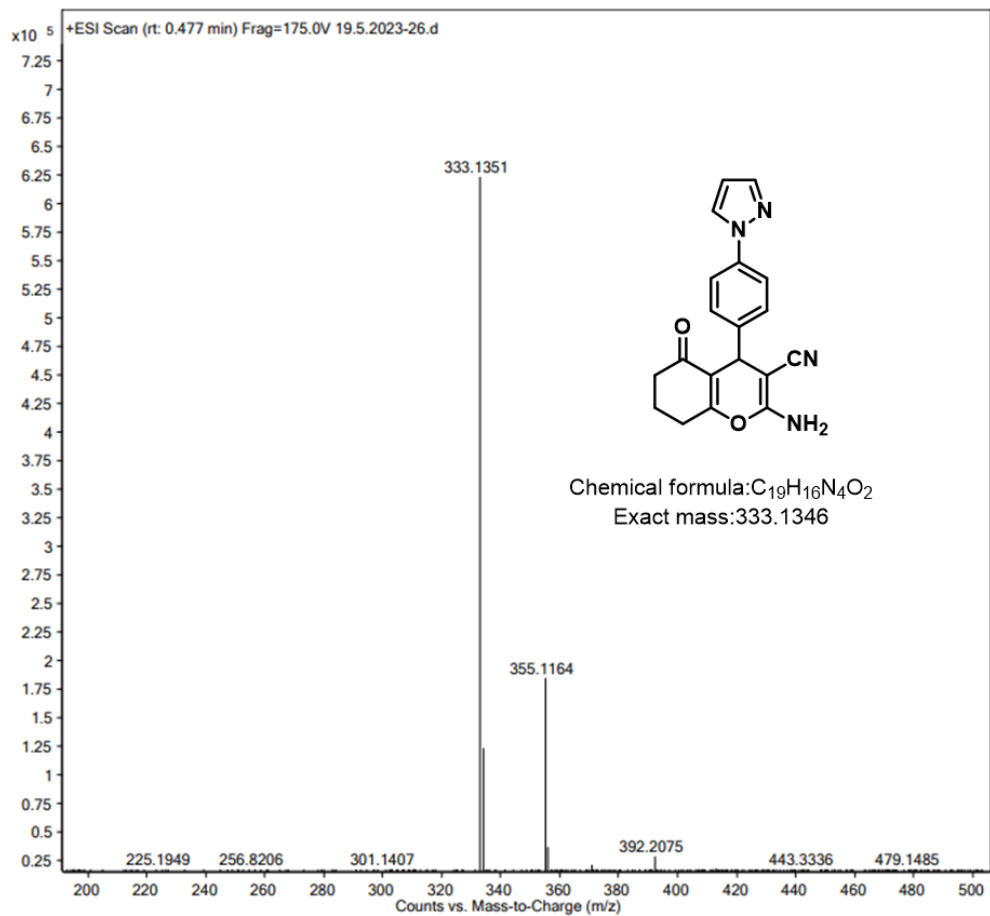
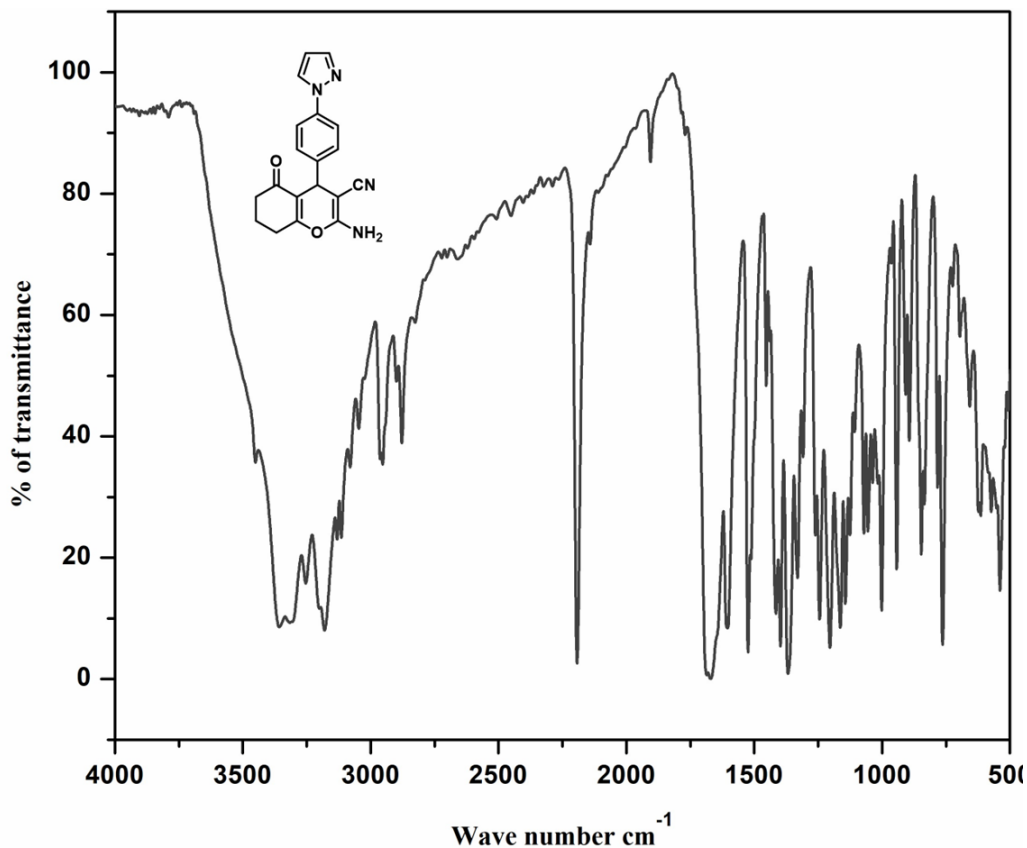
# FTIR and HRMS Spectrum of compound **10e**



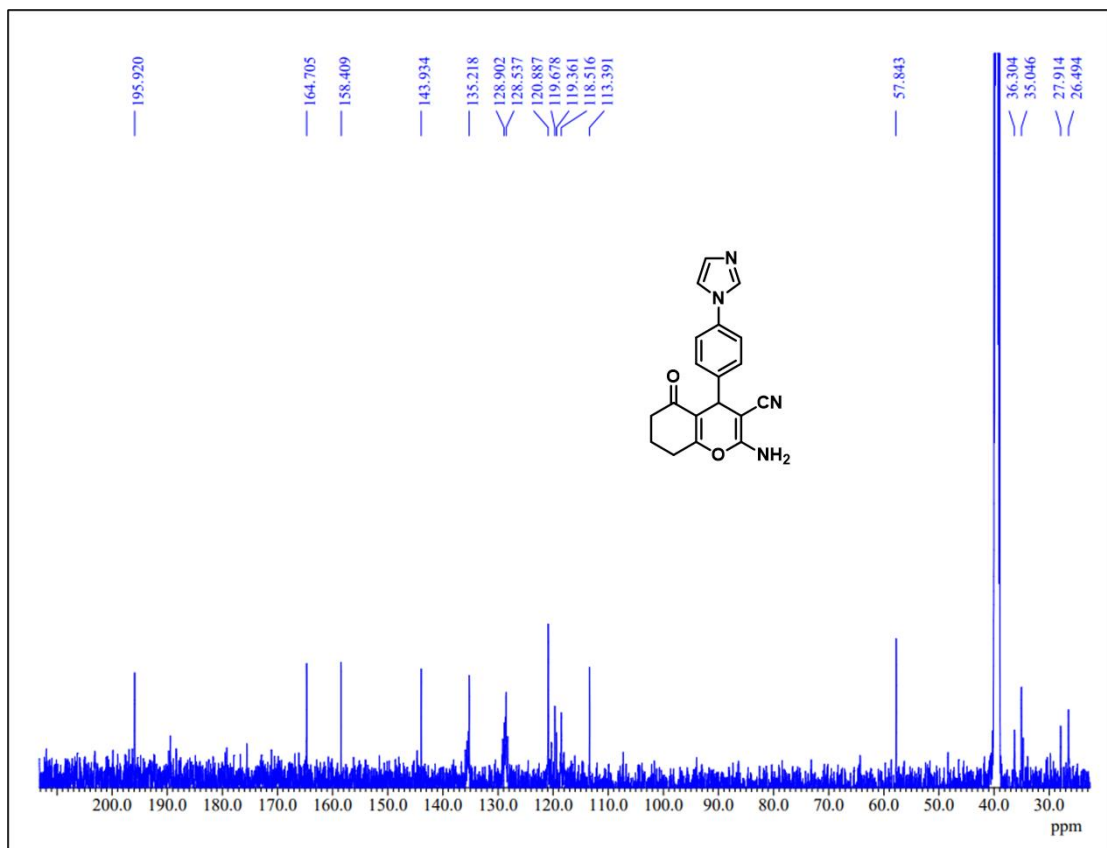
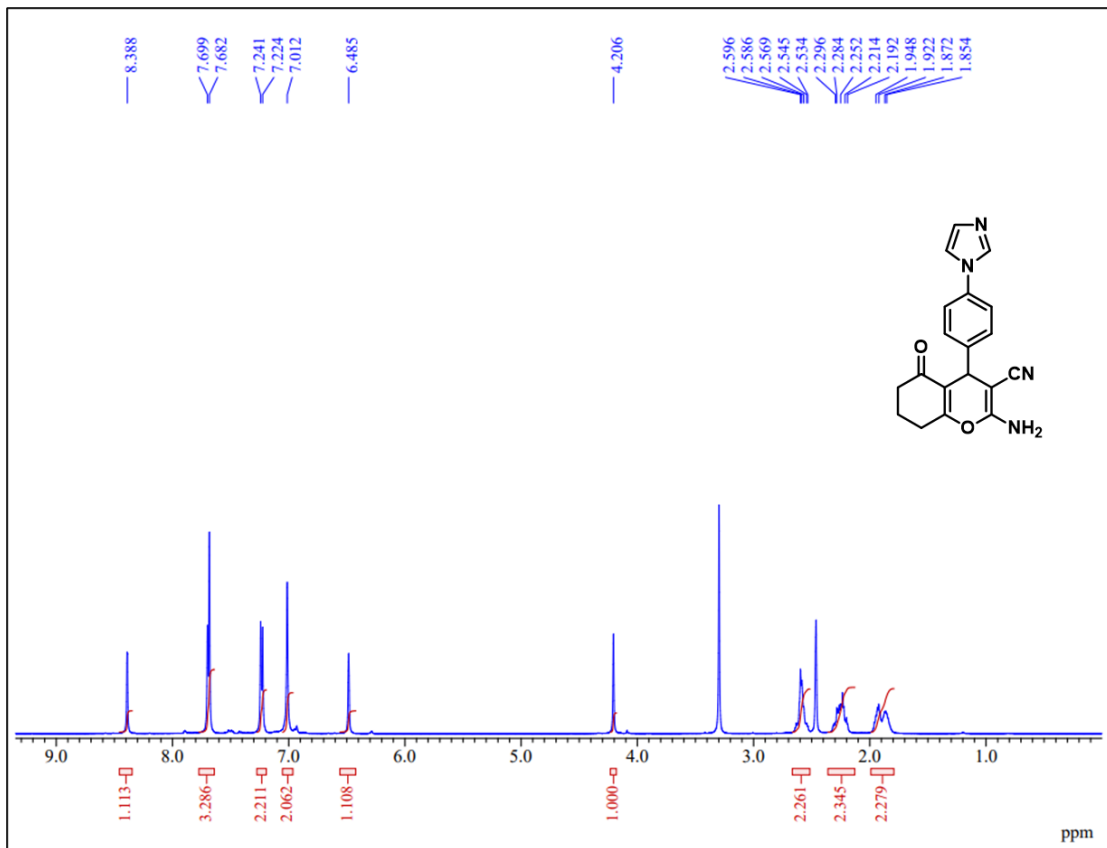
# $^1\text{H}$ NMR and $^{13}\text{C}$ NMR Spectrum of compound **12a**



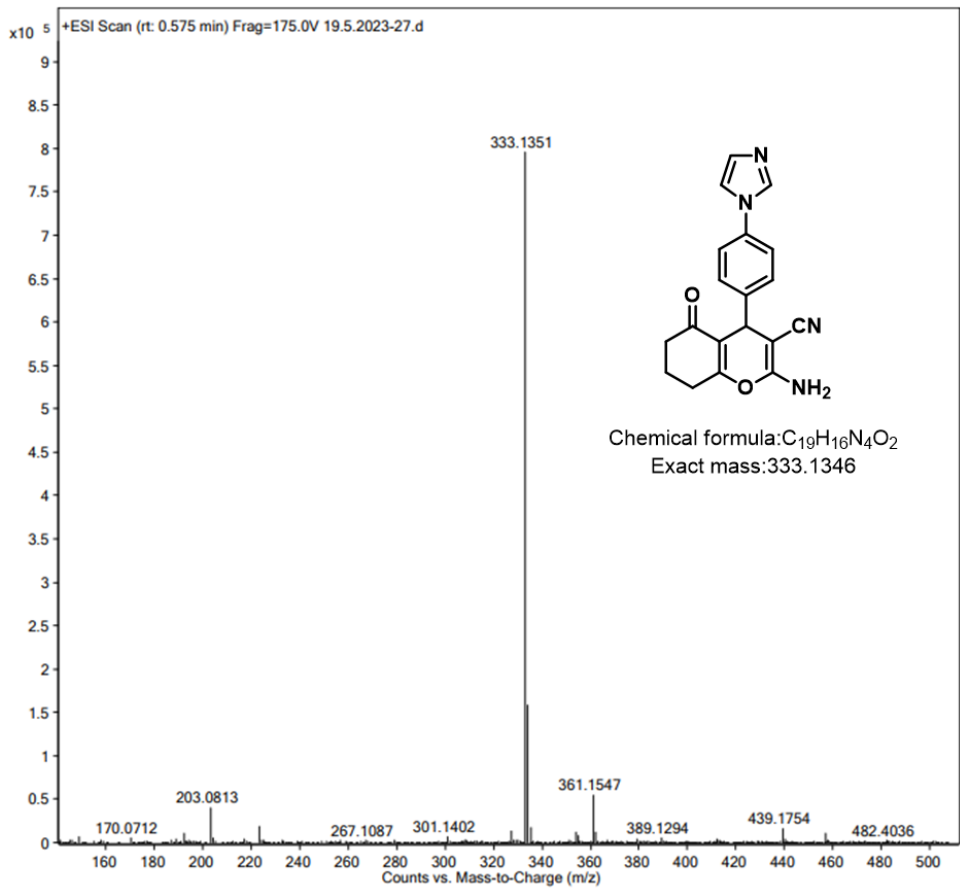
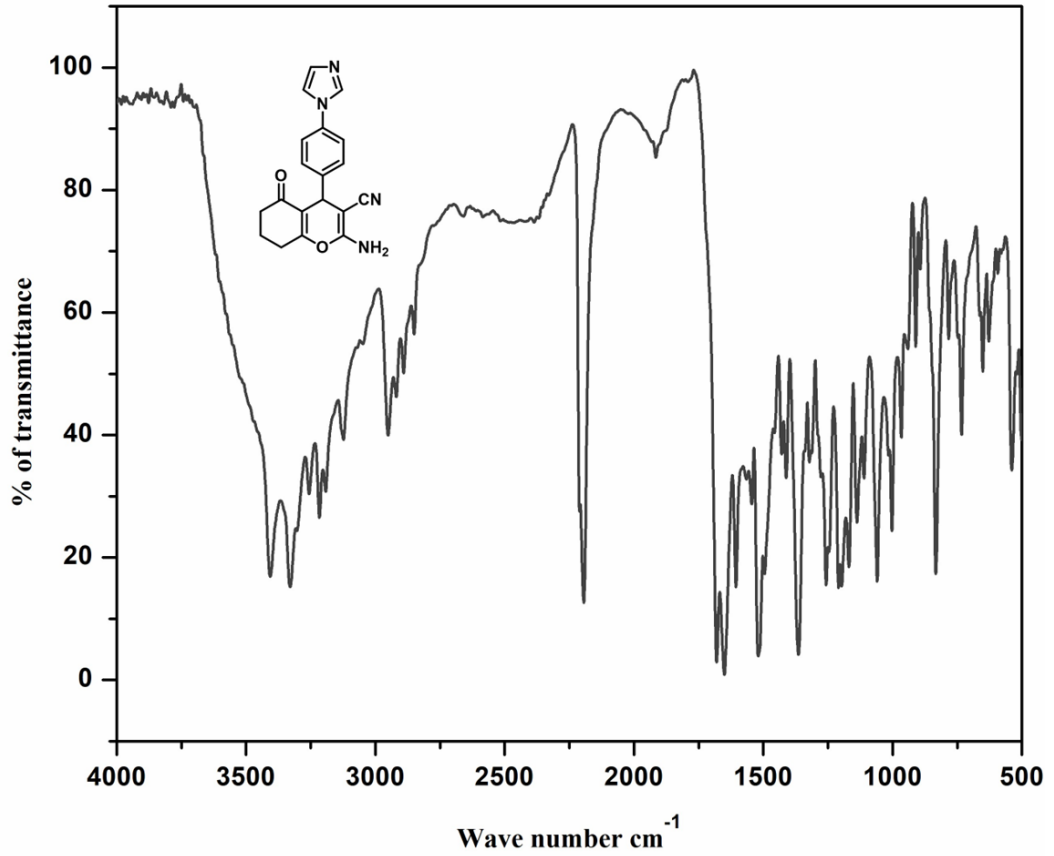
# FTIR and HRMS Spectrum of compound **12a**



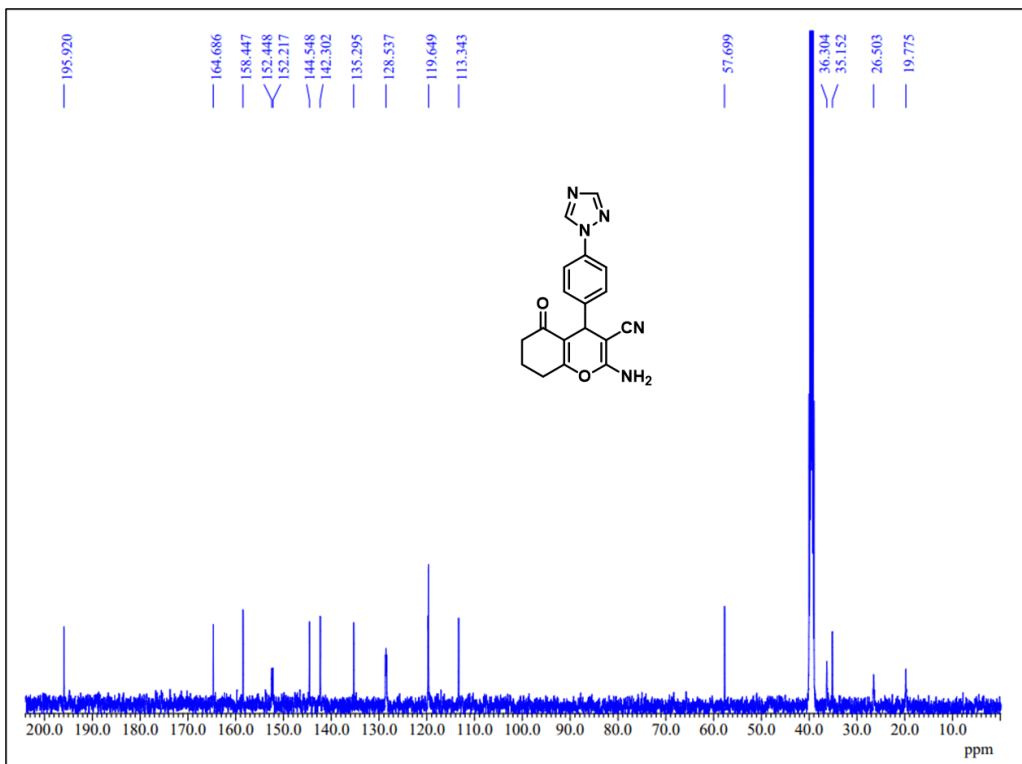
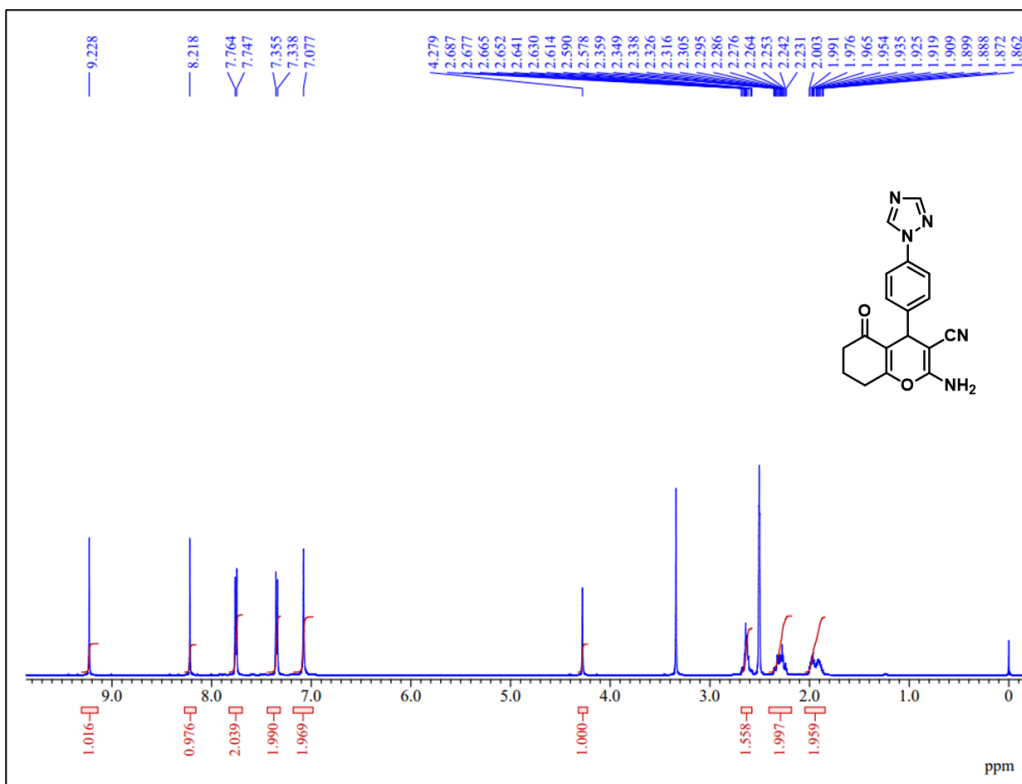
# $^1\text{H}$ NMR and $^{13}\text{C}$ NMR Spectrum of compound **12b**



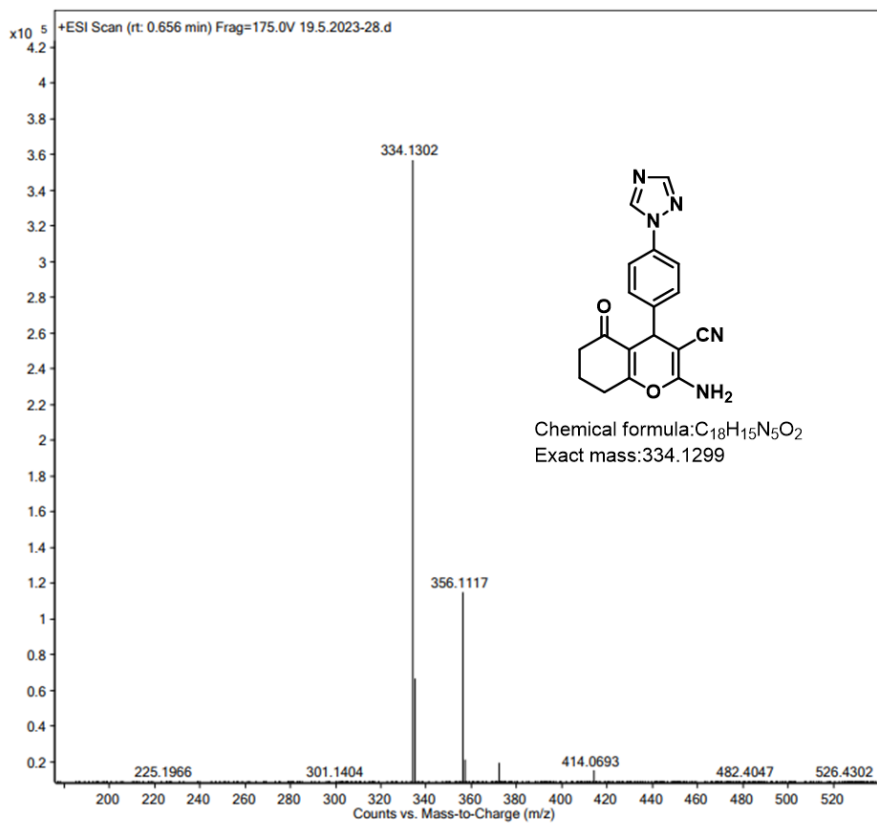
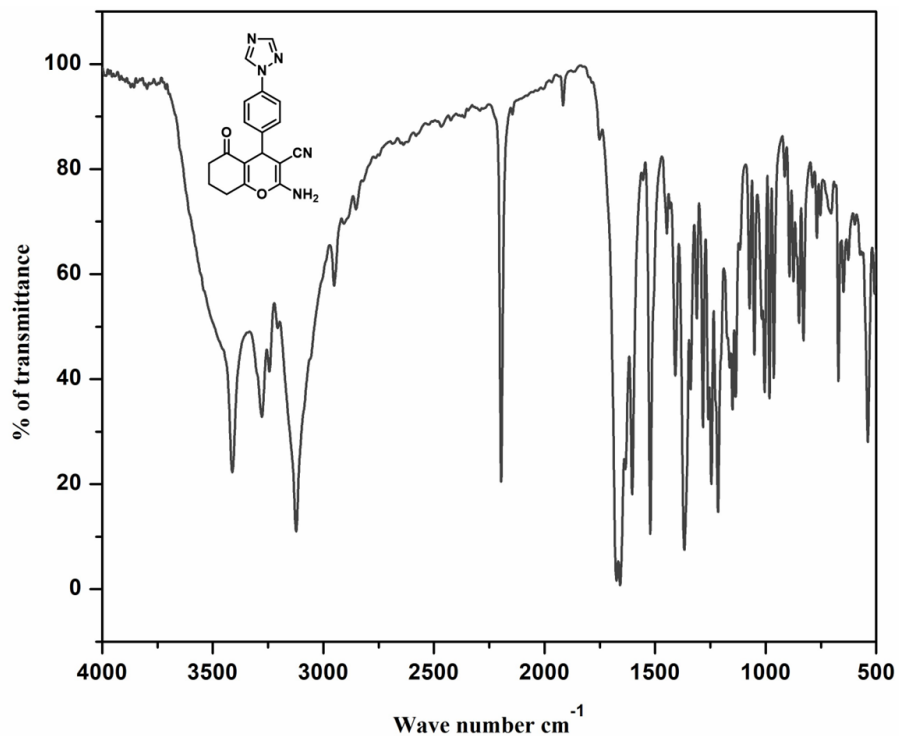
# FTIR and HRMS Spectrum of compound **12b**



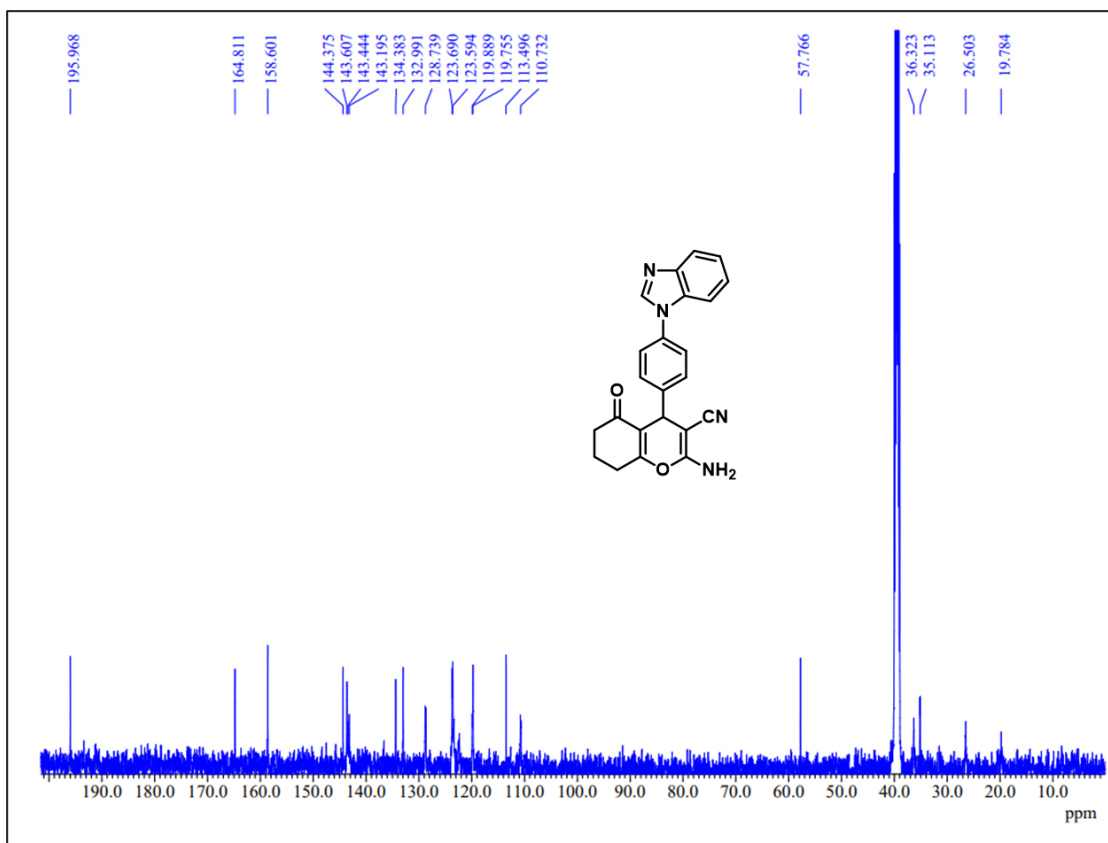
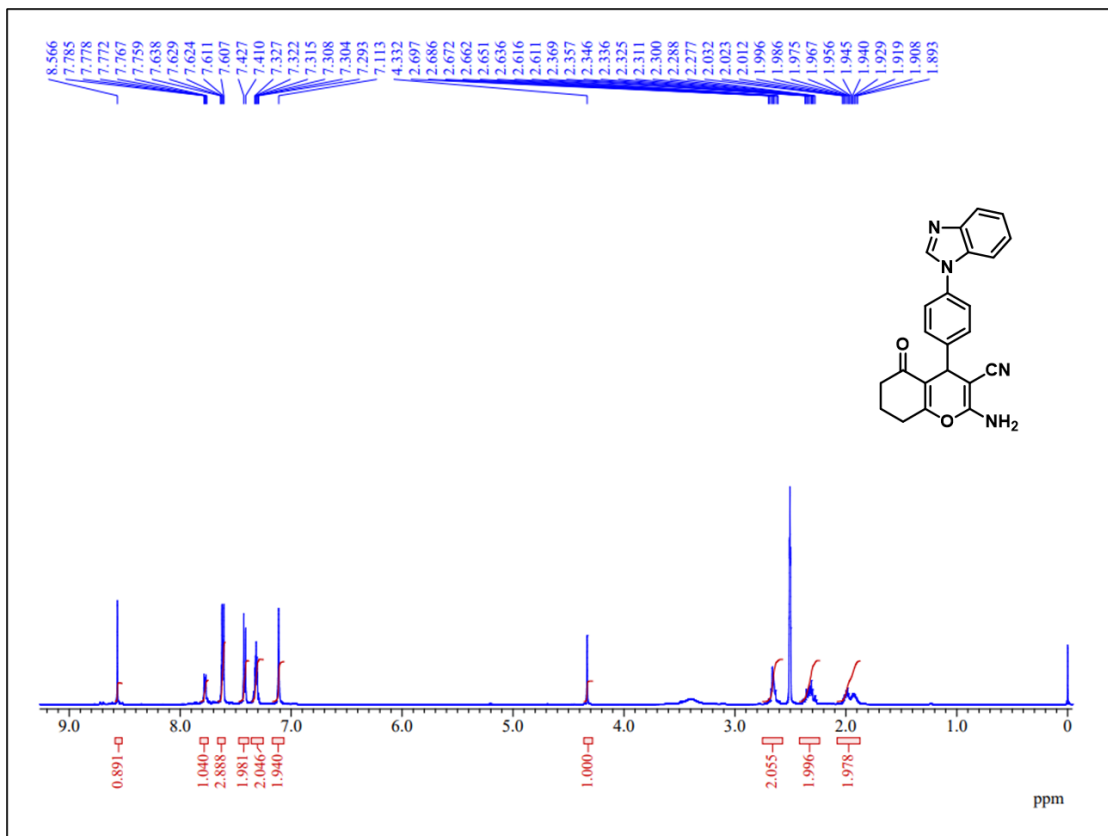
# $^1\text{H}$ NMR and $^{13}\text{C}$ NMR Spectrum of compound **12c**



# FTIR and HRMS Spectrum of compound **12c**

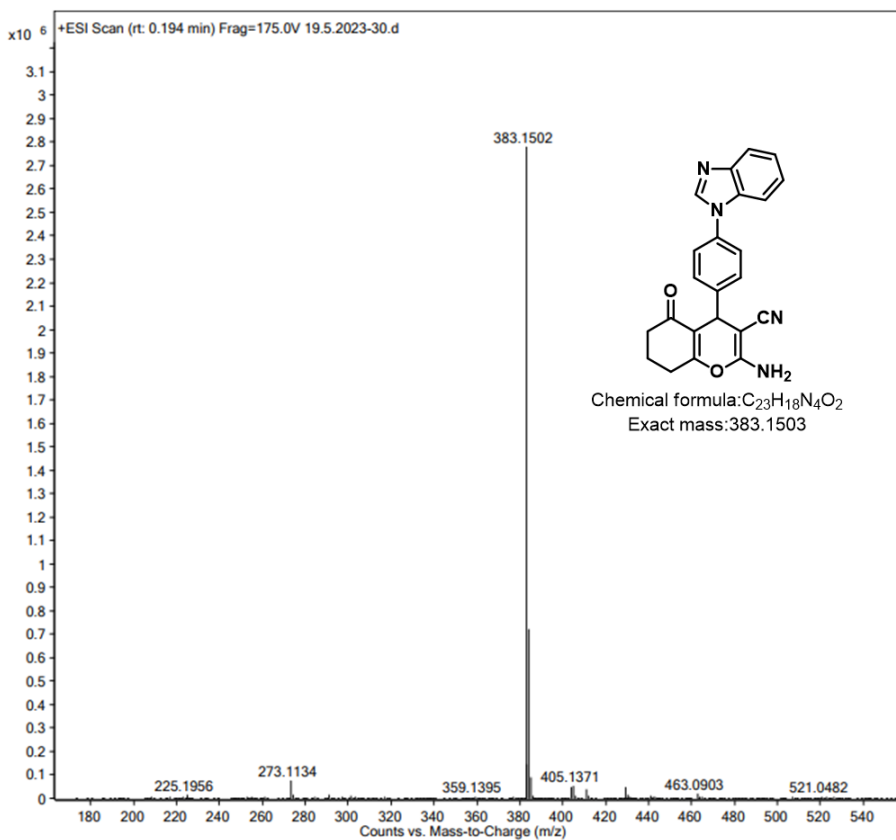
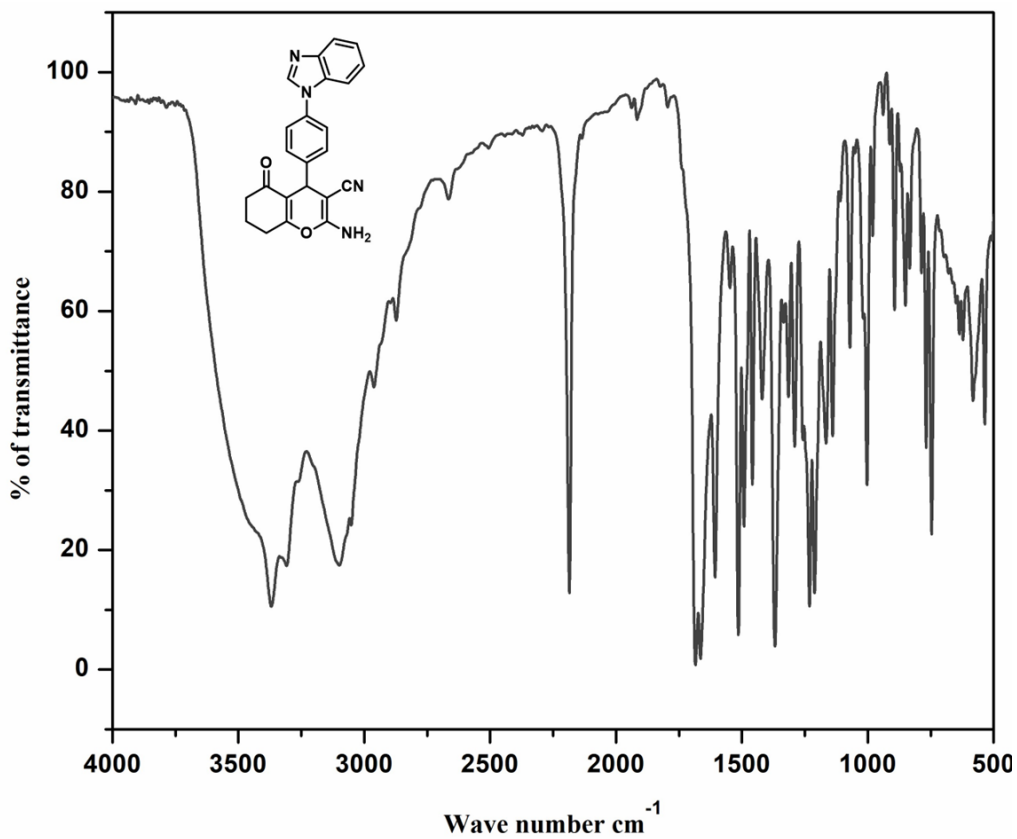


# $^1\text{H}$ NMR and $^{13}\text{C}$ NMR Spectrum of compound **12d**

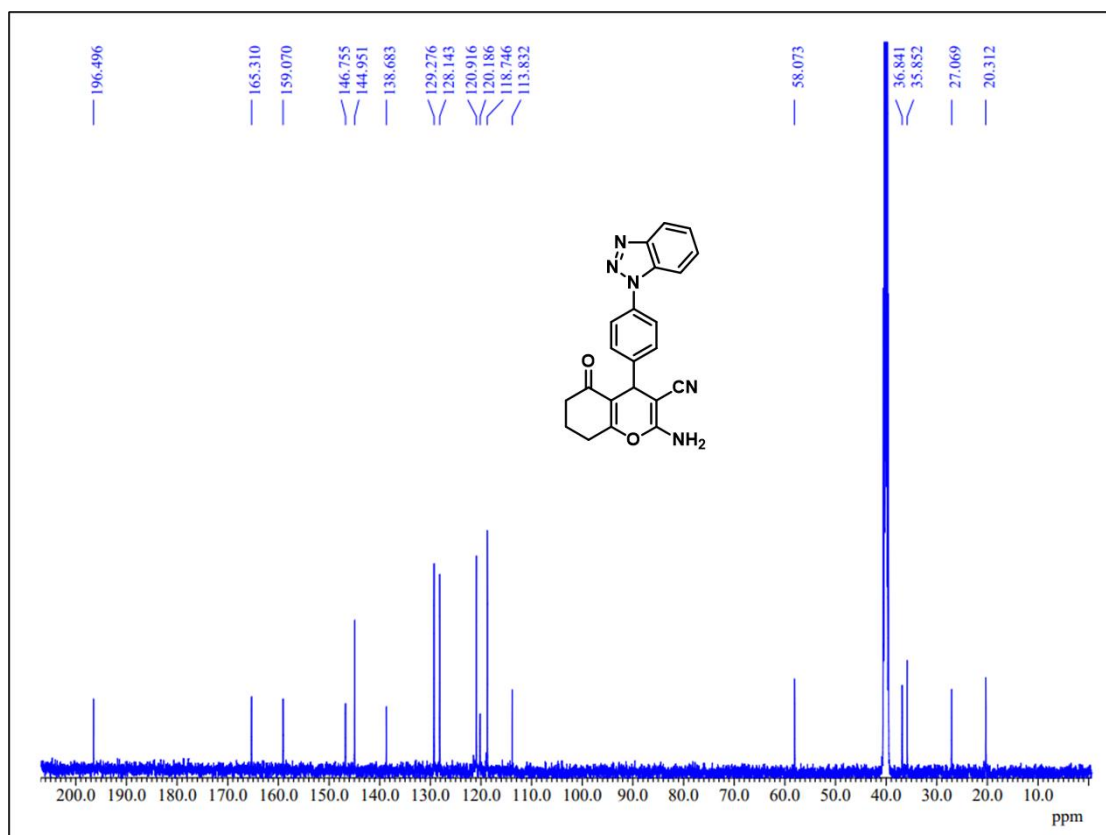
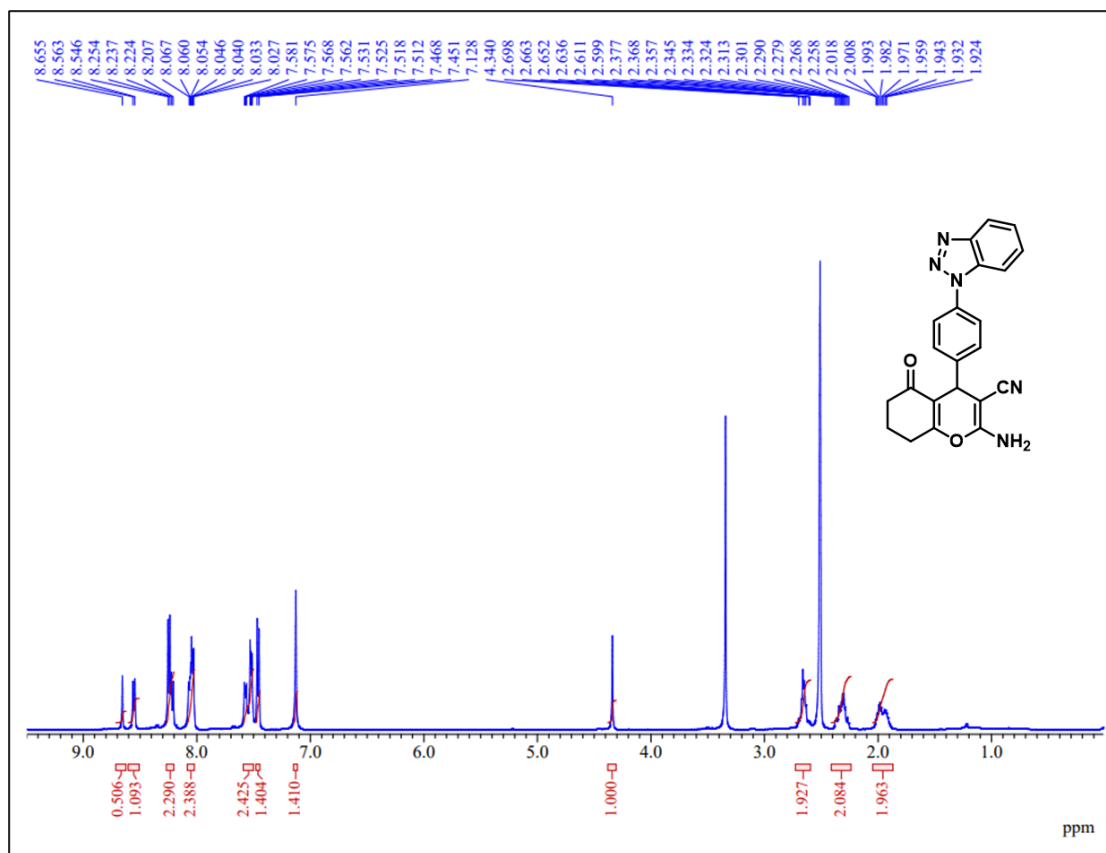




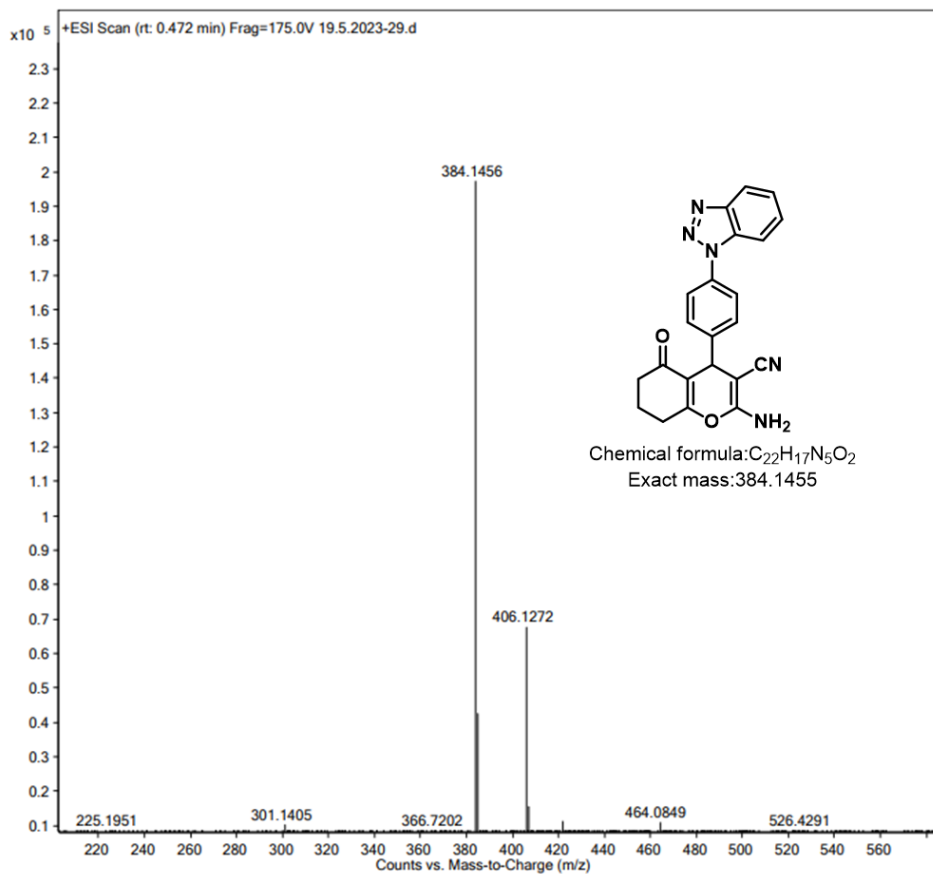
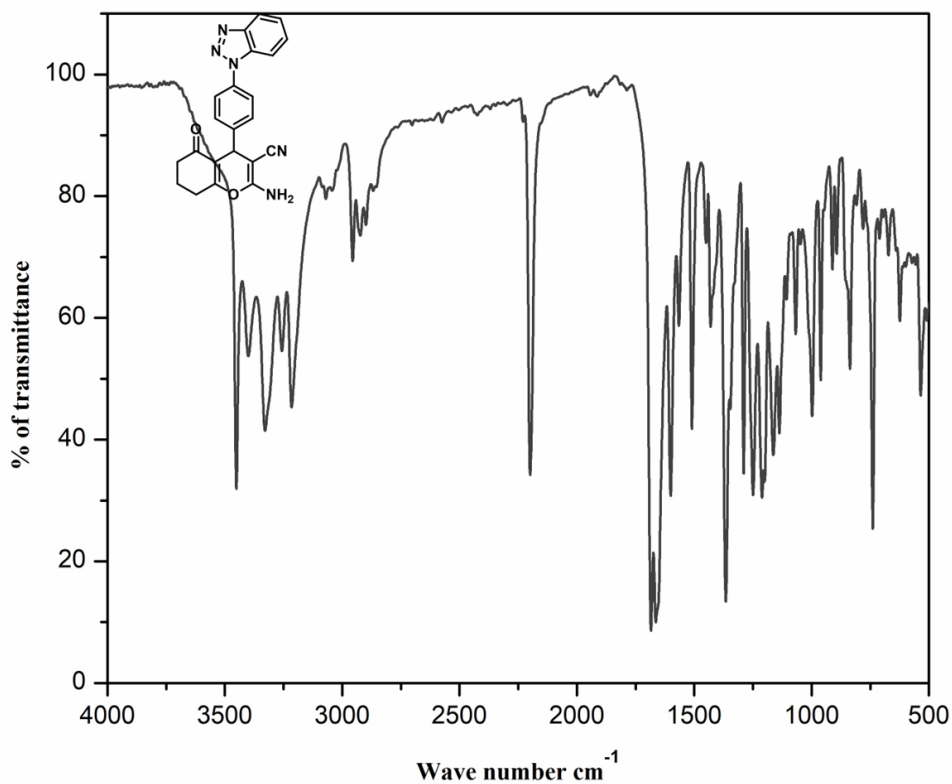
# FTIR and HRMS Spectrum of compound **12d**



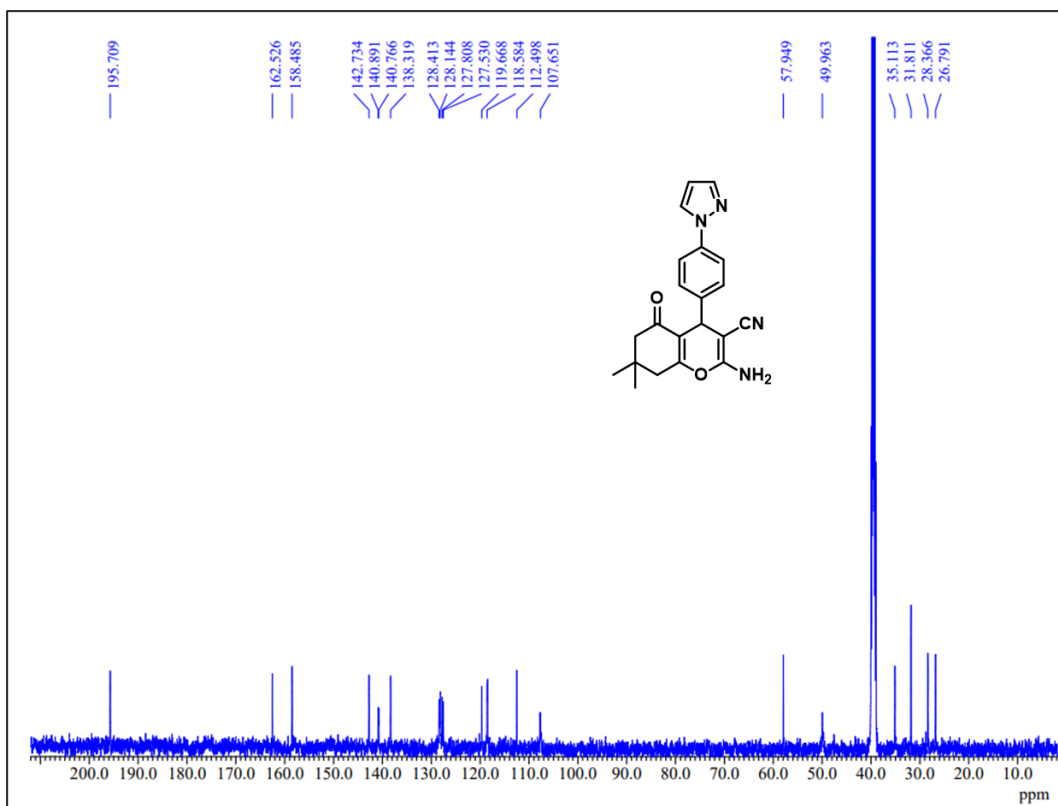
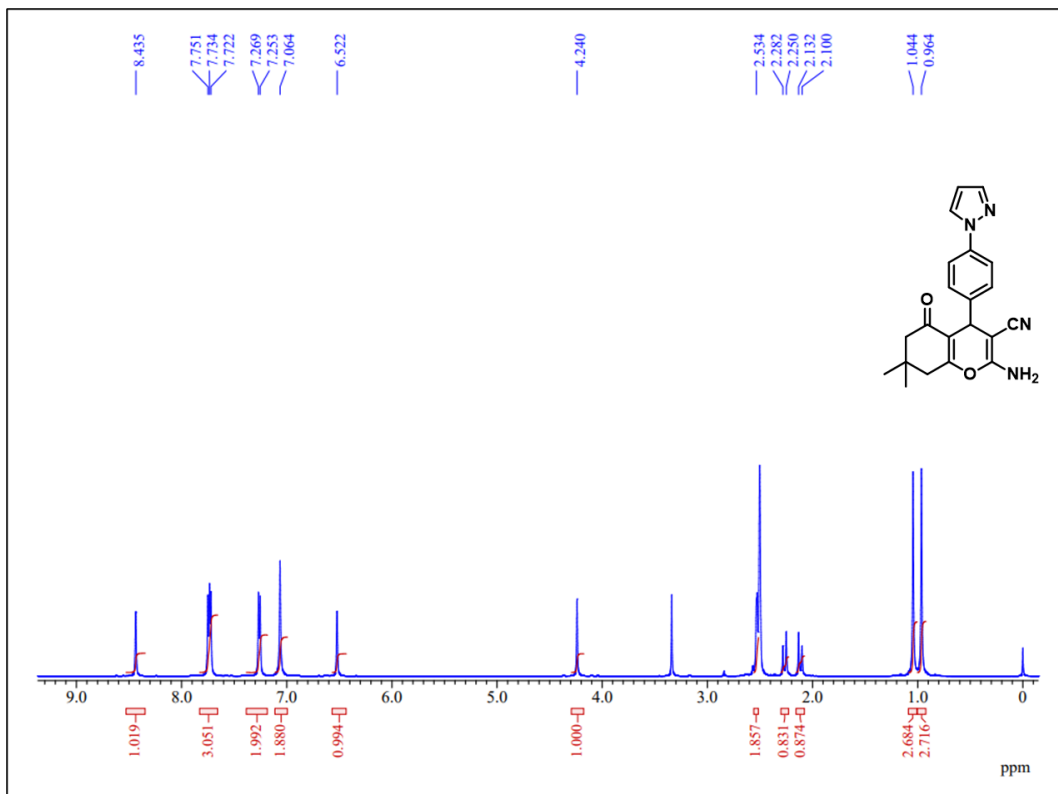
# $^1\text{H}$ NMR and $^{13}\text{C}$ NMR Spectrum of compound **12e**



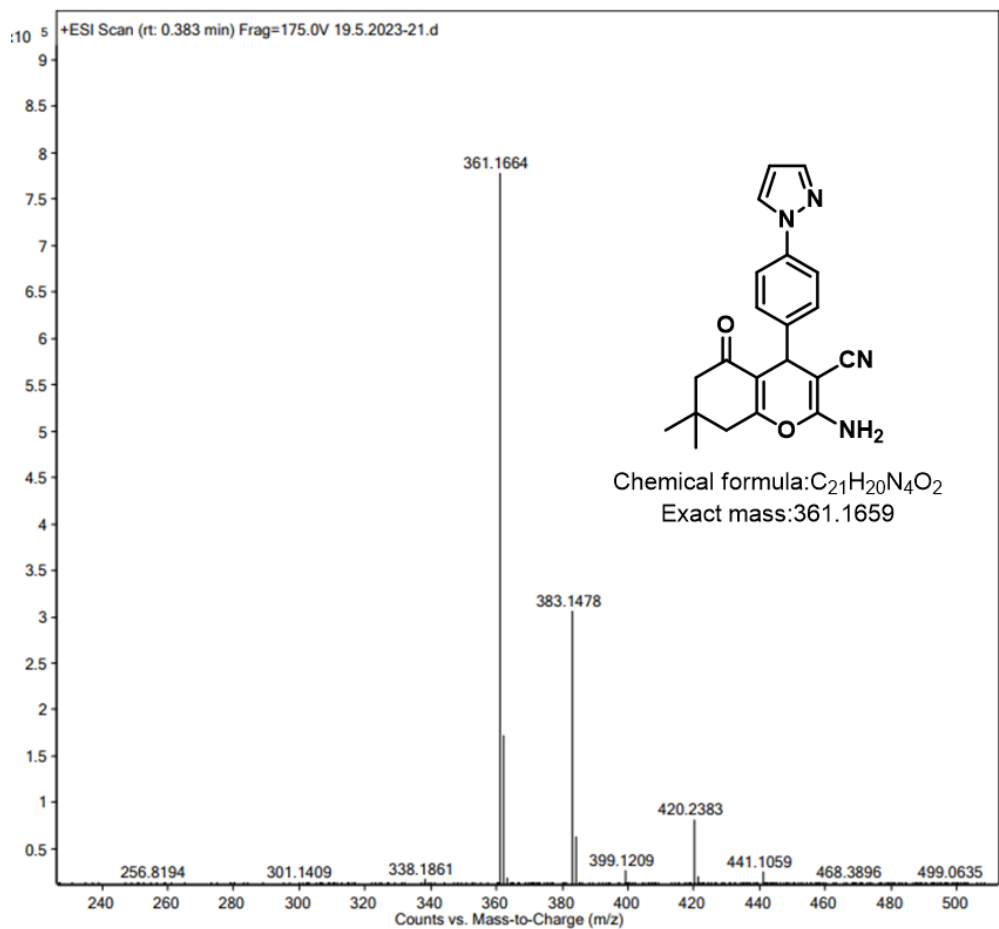
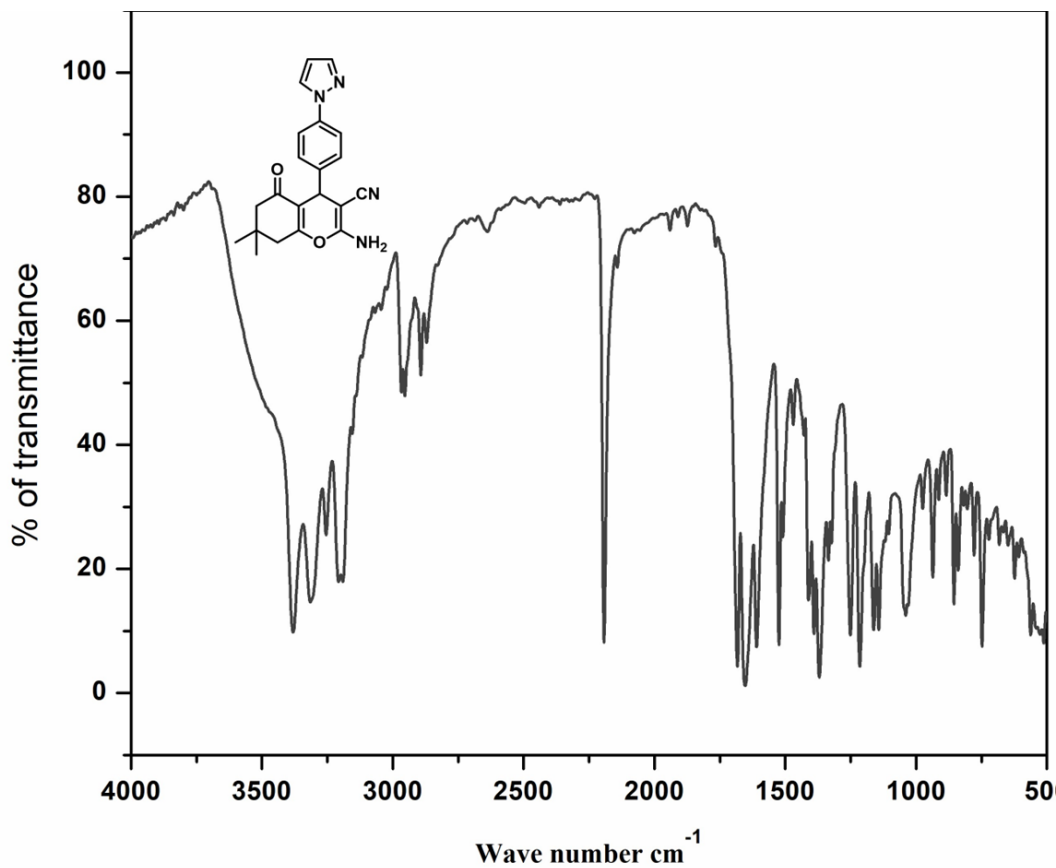
# FTIR and HRMS Spectrum of compound **12e**



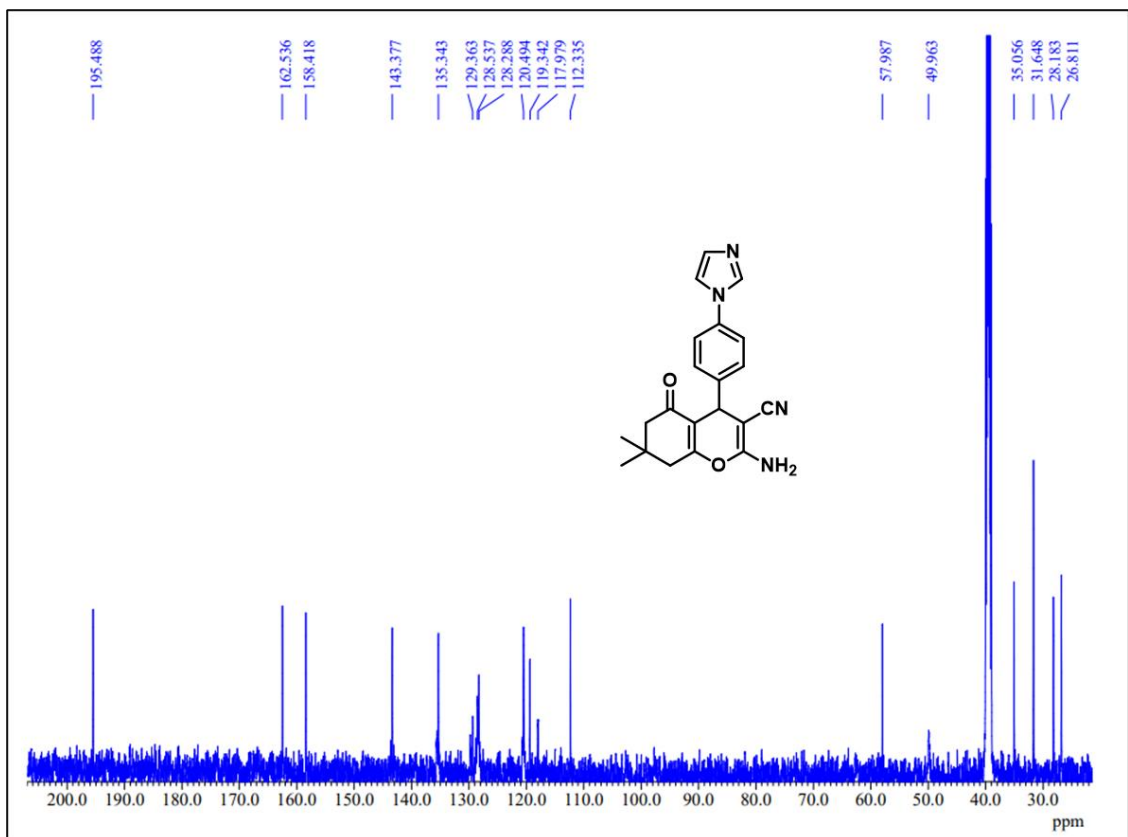
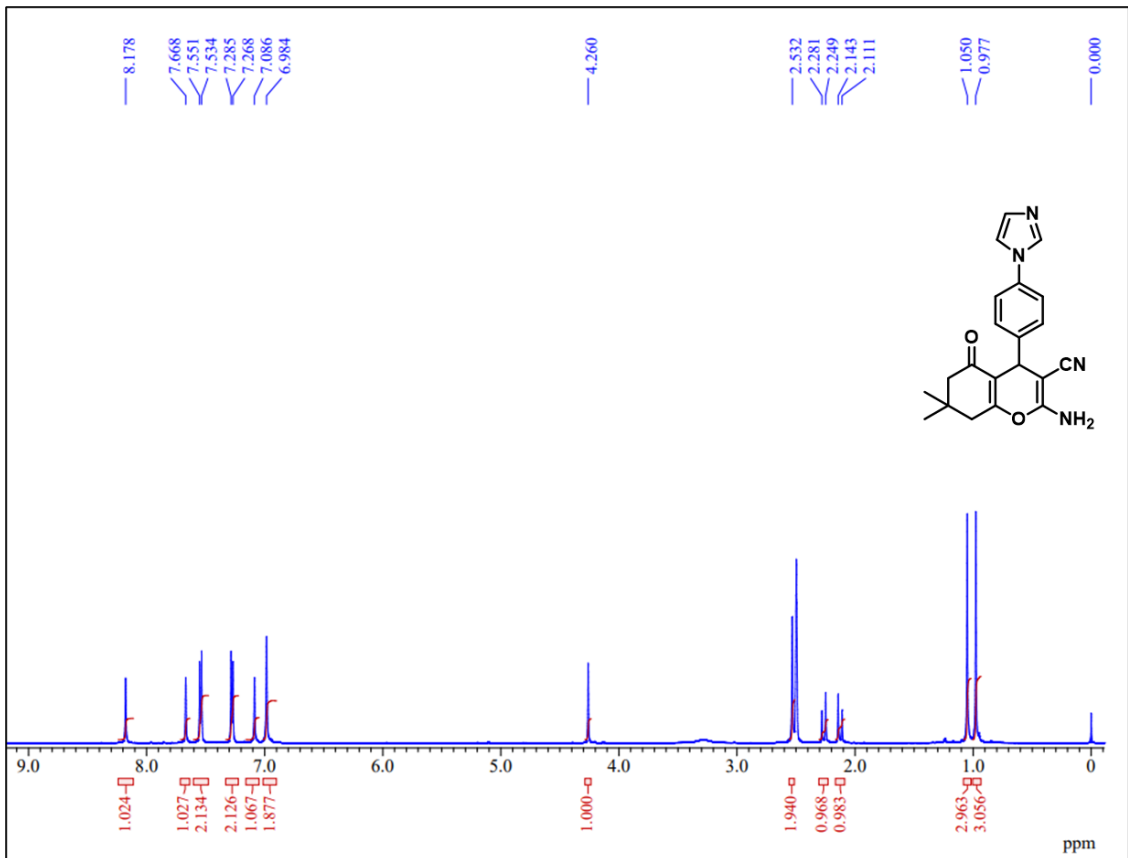
# $^1\text{H}$ NMR and $^{13}\text{C}$ NMR Spectrum of compound **14a**



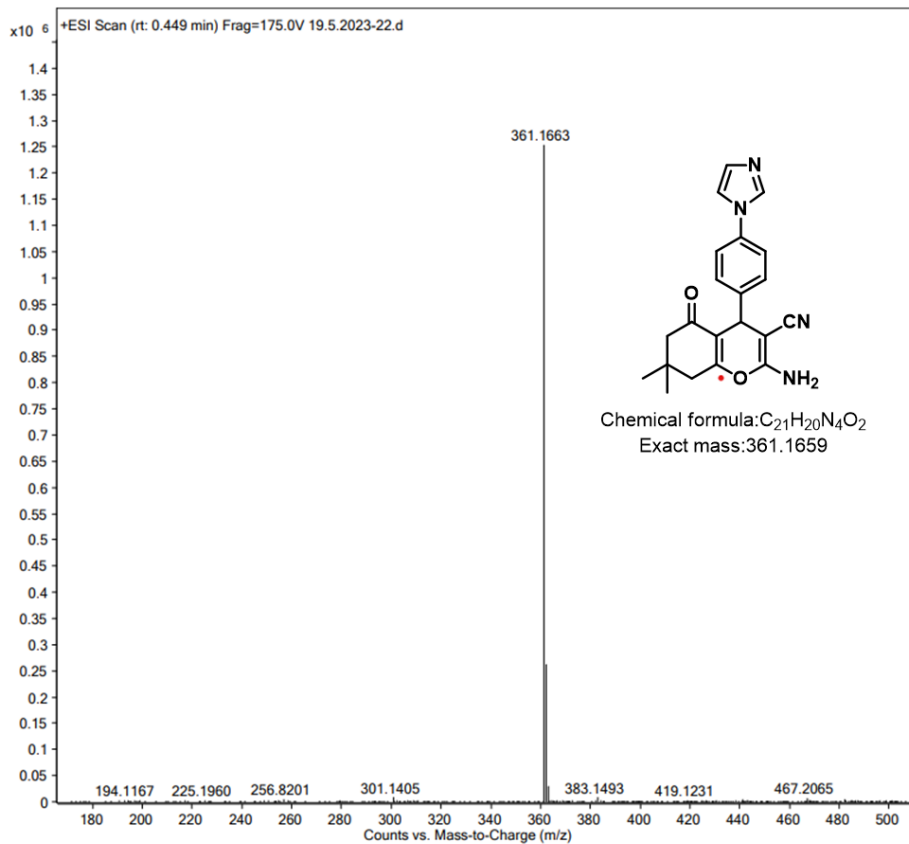
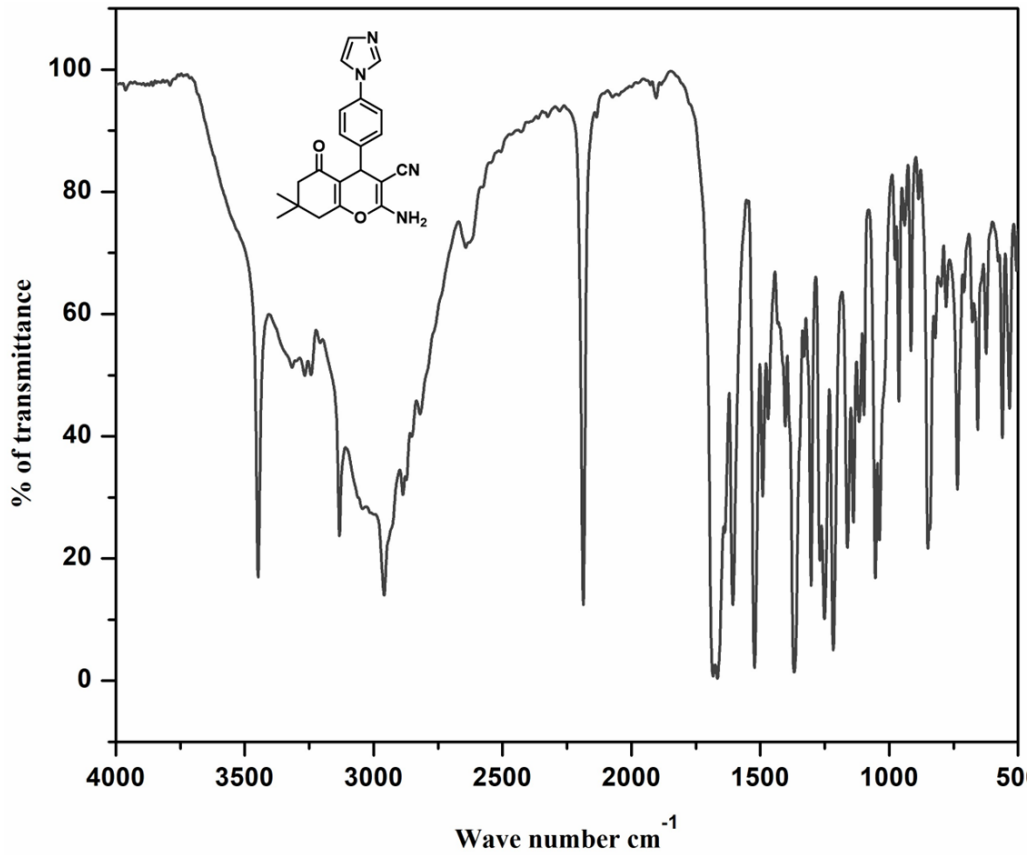
# FTIR and HRMS Spectrum of compound **14a**



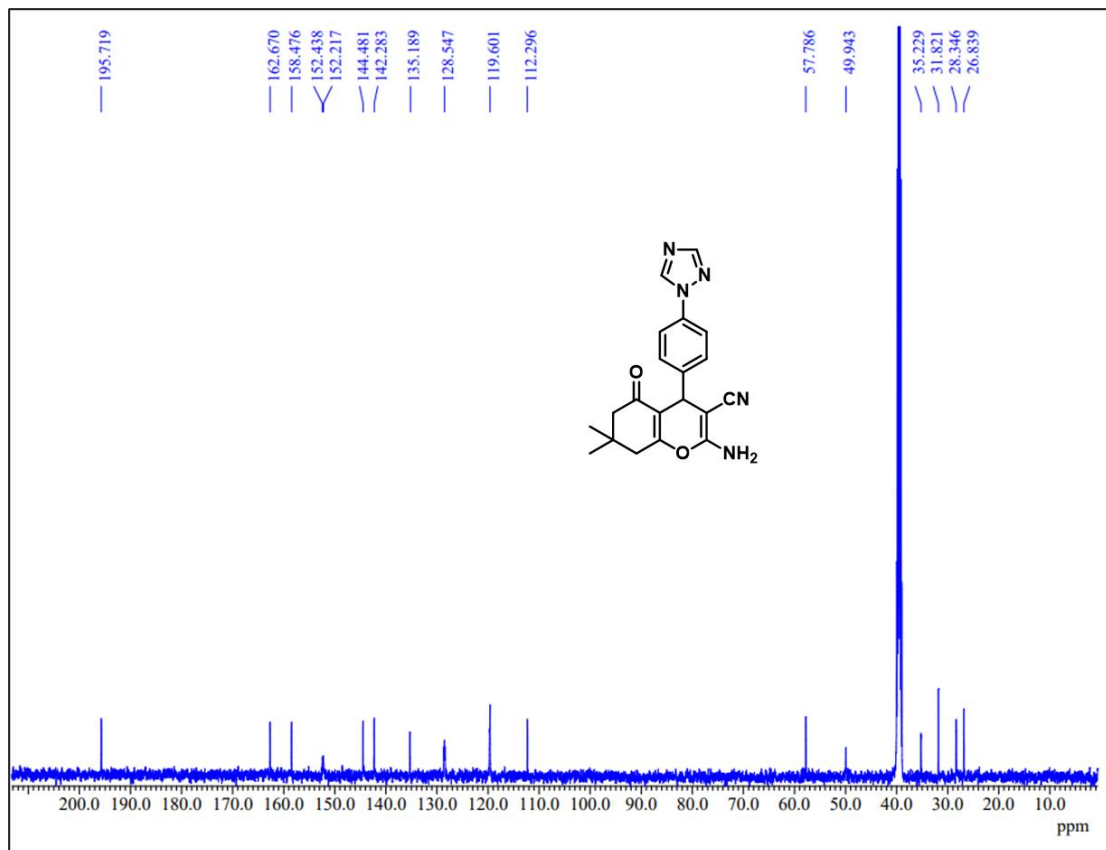
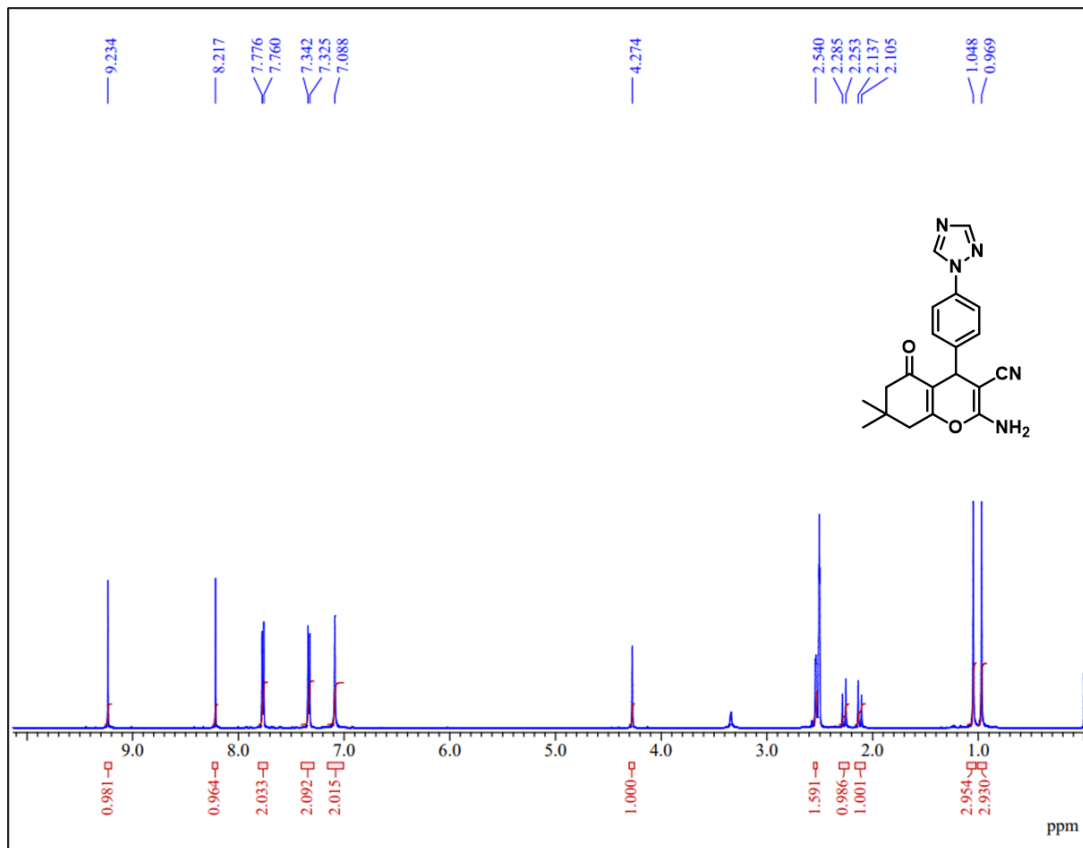
# $^1\text{H}$ NMR and $^{13}\text{C}$ NMR Spectrum of compound **14b**



# FTIR and HRMS Spectrum of compound **14b**

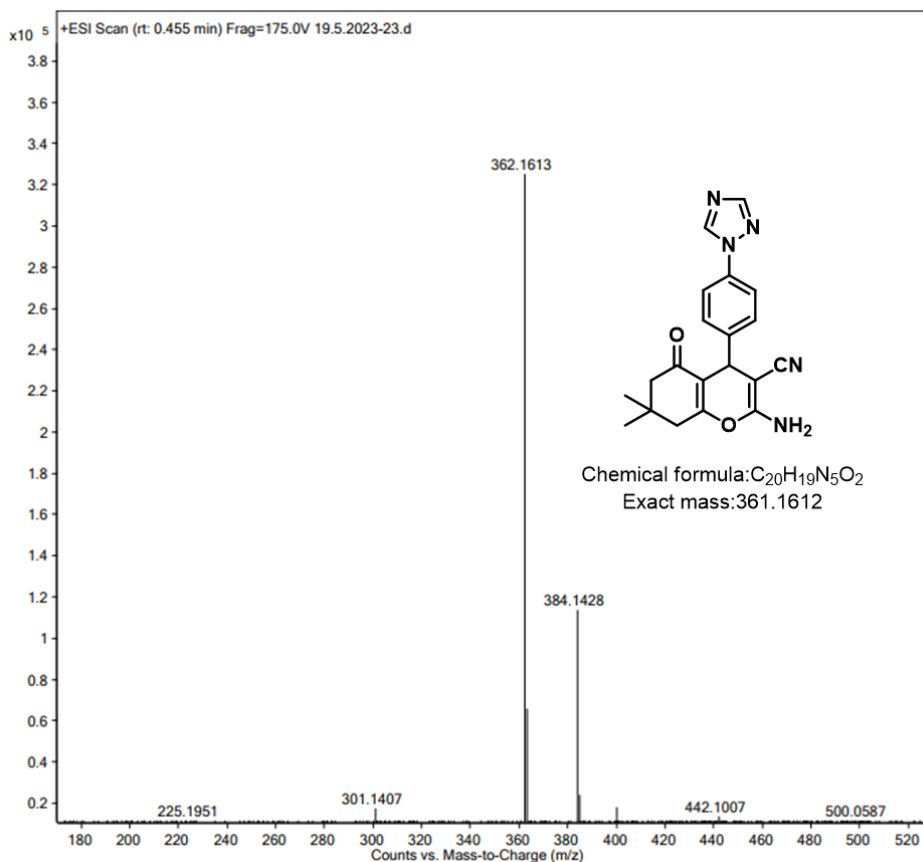
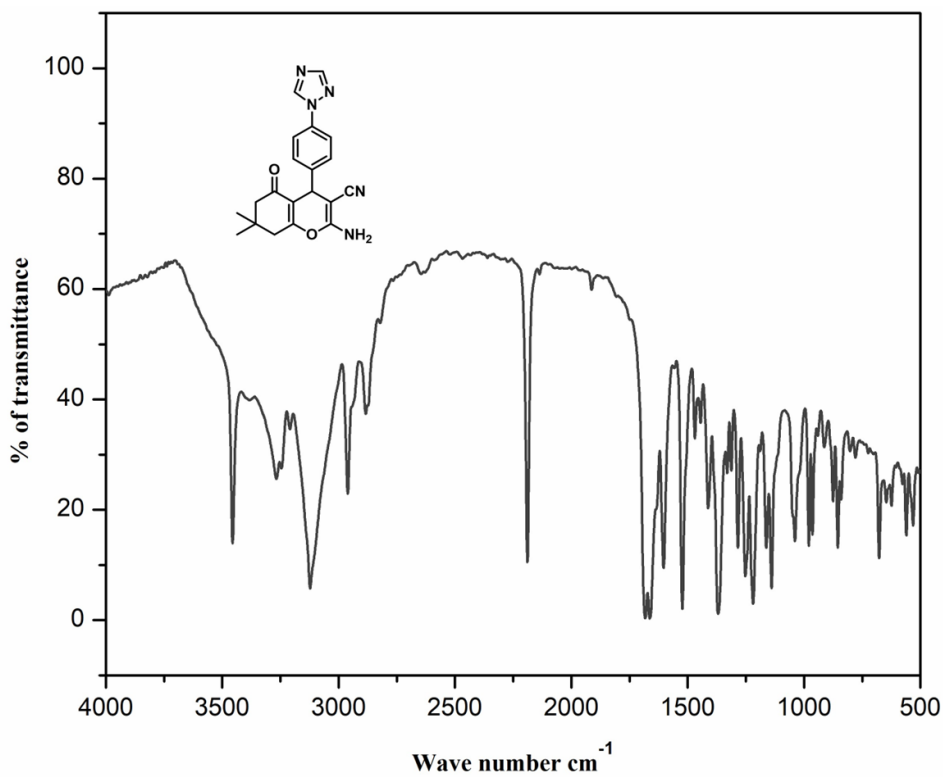


# $^1\text{H}$ NMR and $^{13}\text{C}$ NMR Spectrum of compound **14c**

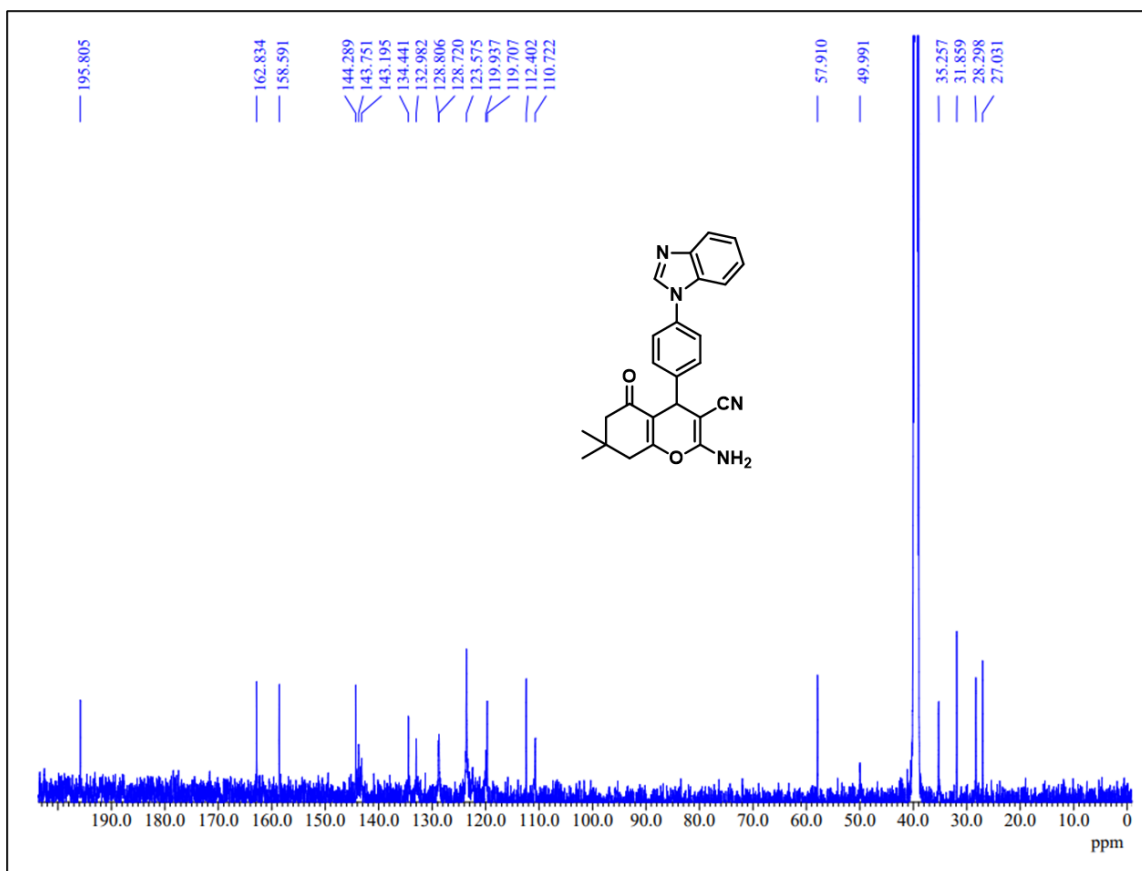
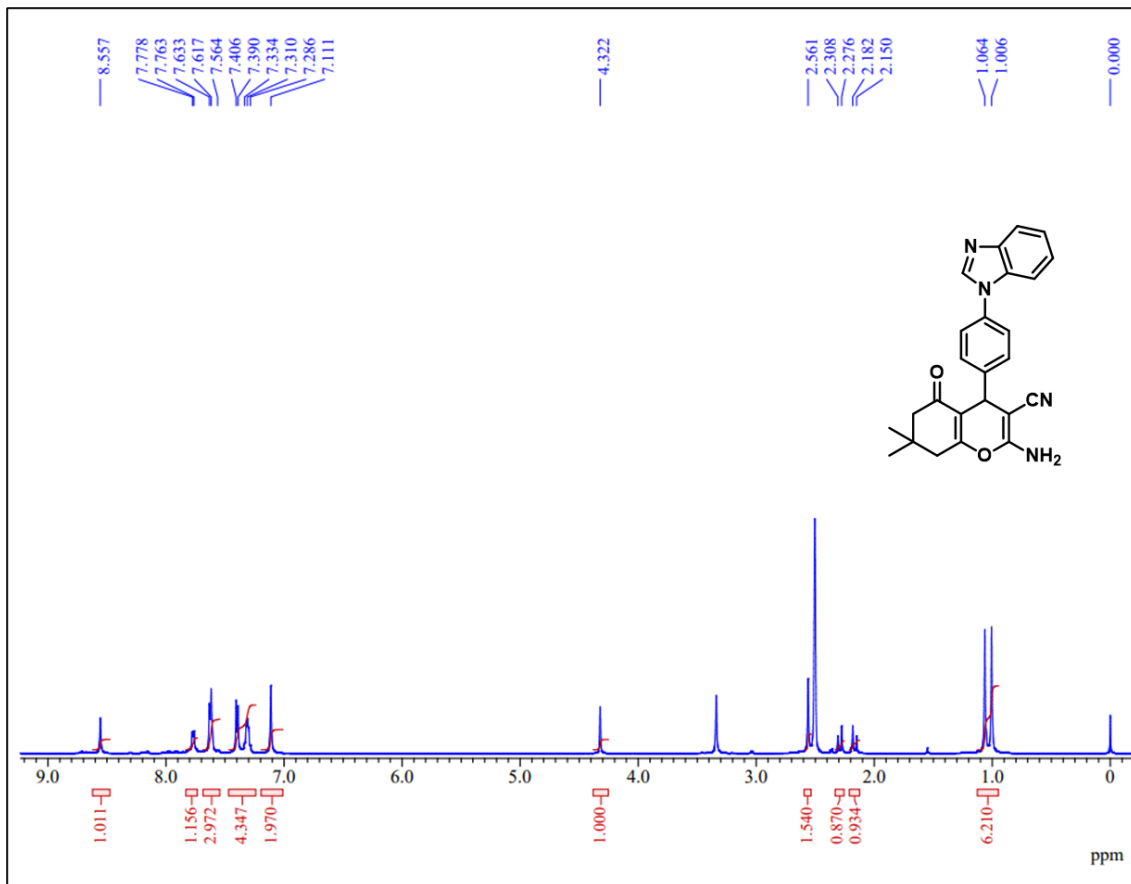




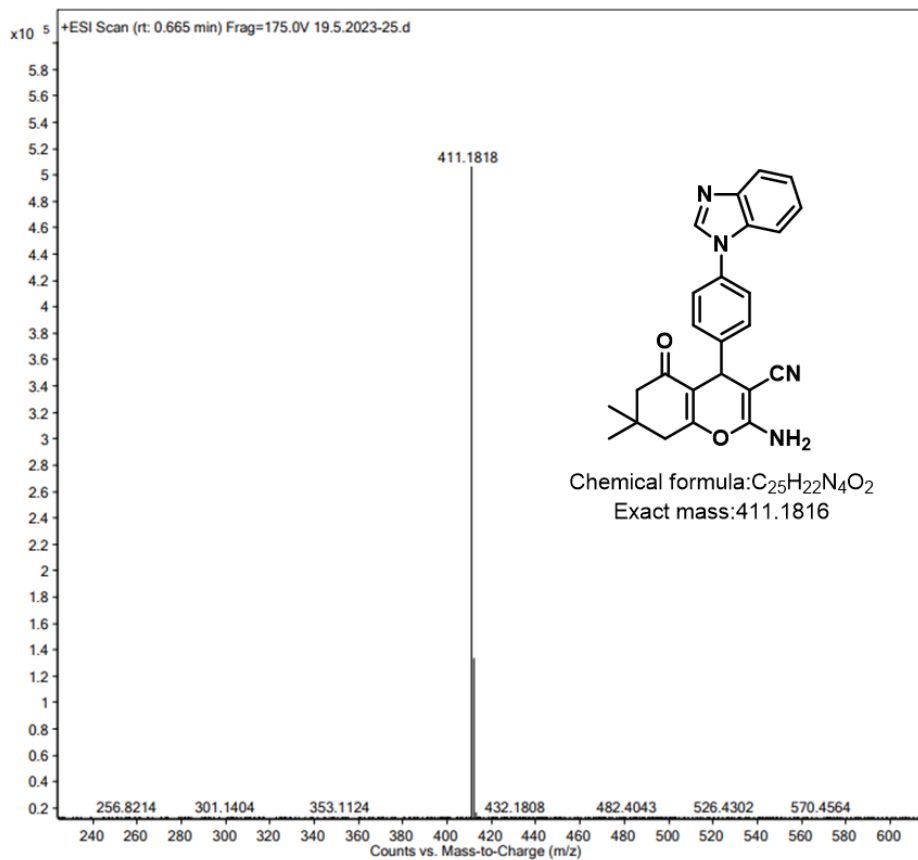
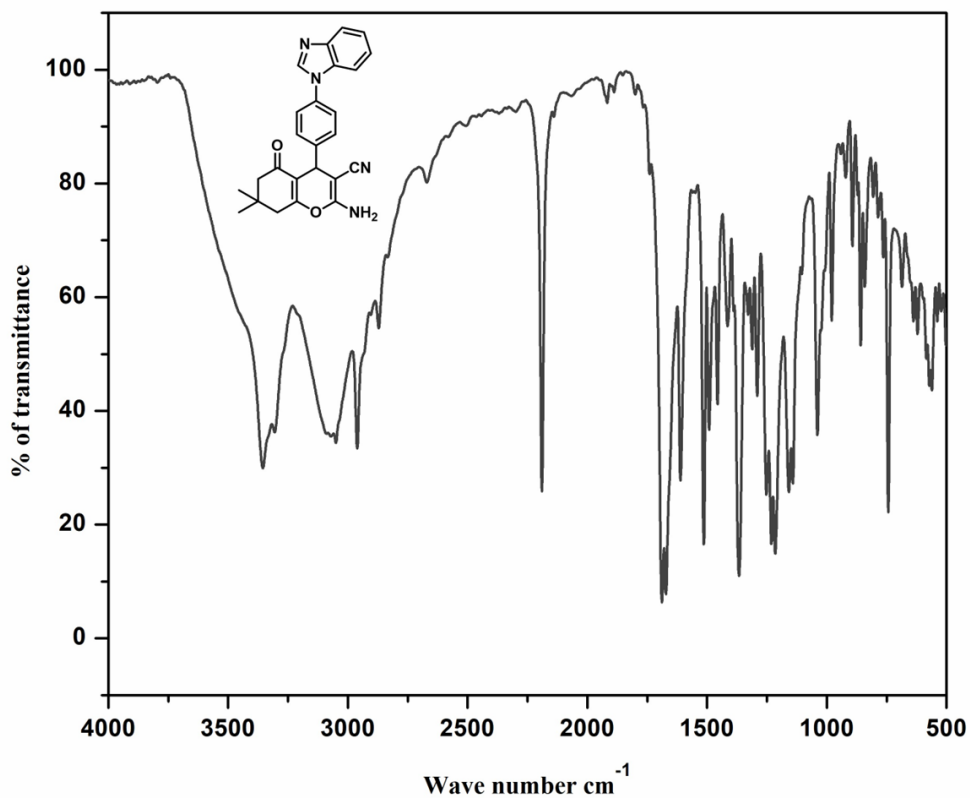
# FTIR and HRMS Spectrum of compound **14c**



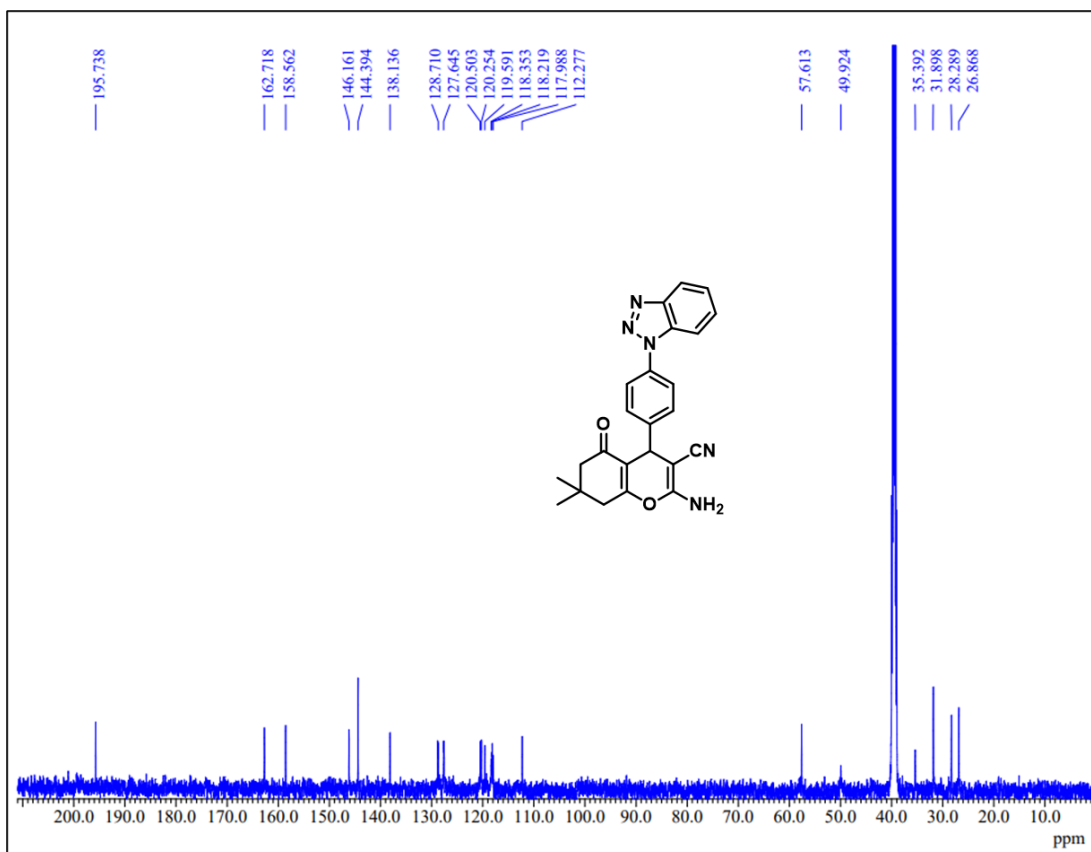
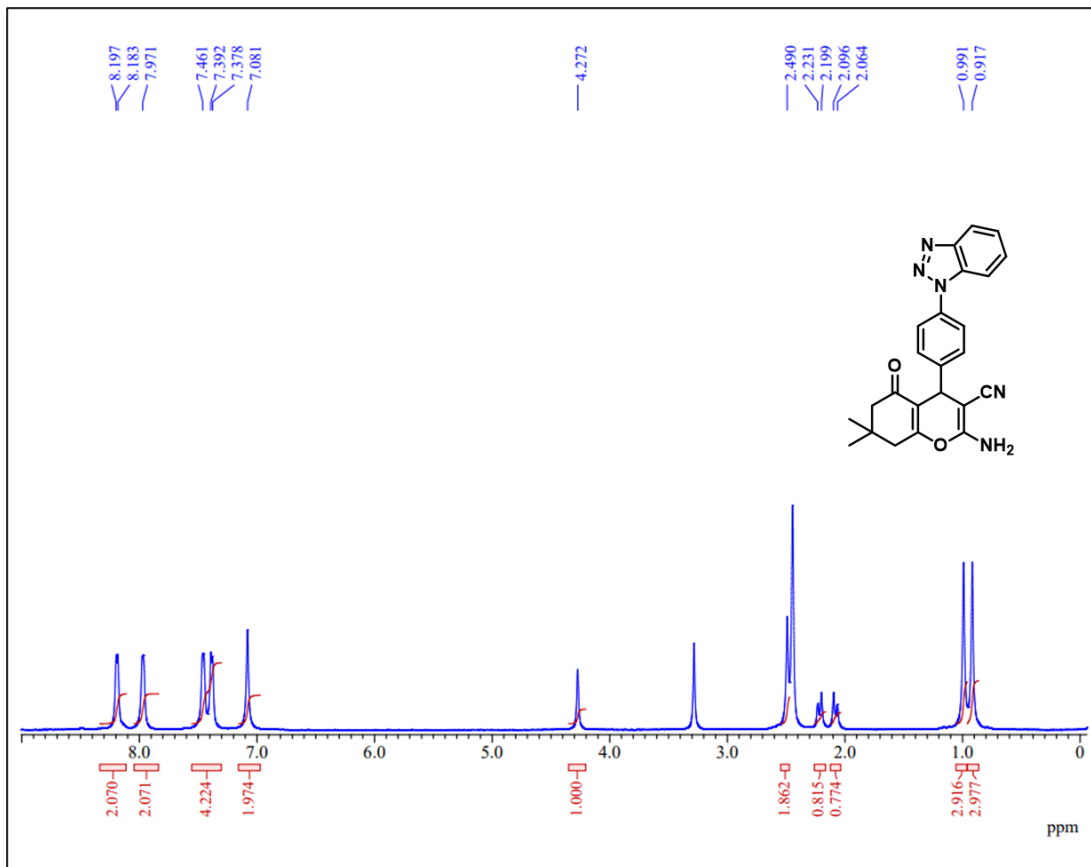
# $^1\text{H}$ NMR and $^{13}\text{C}$ NMR Spectrum of compound **14d**



# FTIR and HRMS Spectrum of compound **14d**



# $^1\text{H}$ NMR and $^{13}\text{C}$ NMR Spectrum of compound **14e**



# FTIR and HRMS Spectrum of compound **14e**

