

**Supplementary data**

# **Synthesis, Characterization and Assessment of Antioxidant and Melanogenic Inhibitory Properties of Edaravone Derivatives**

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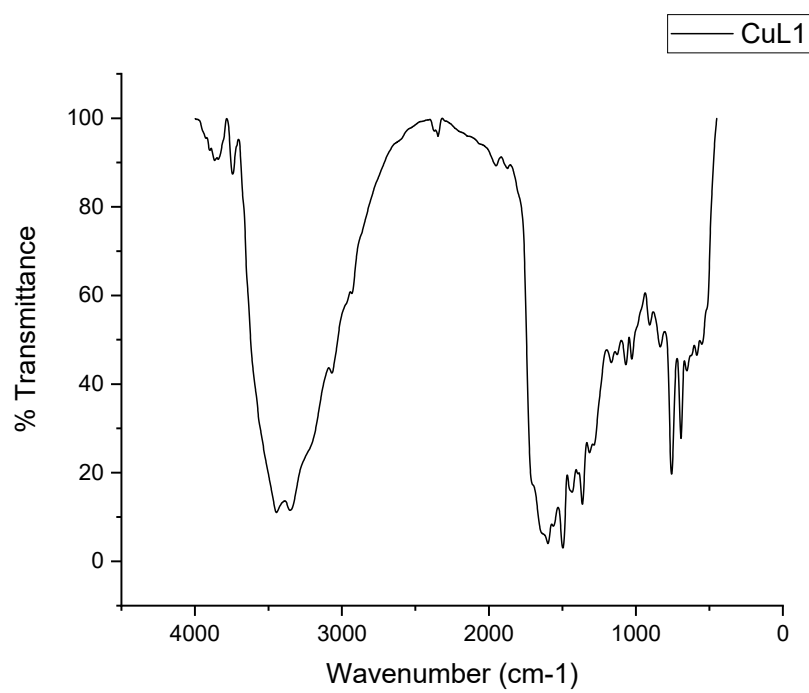
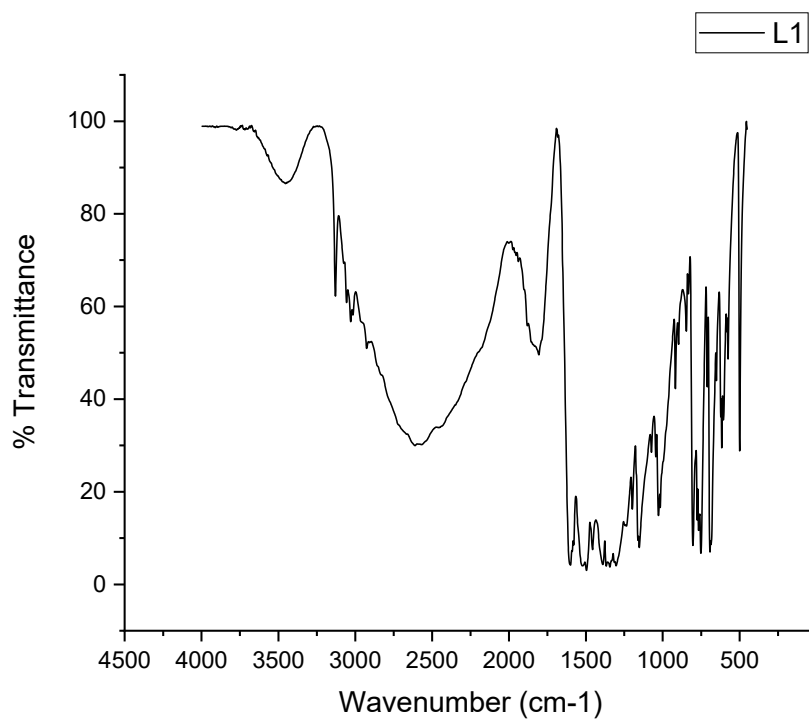
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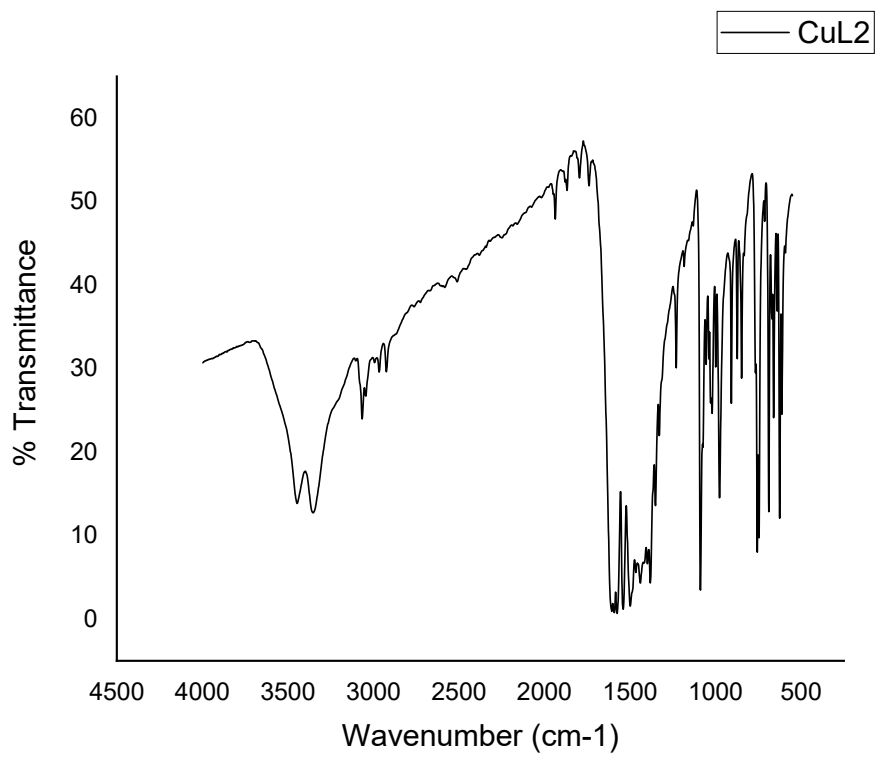
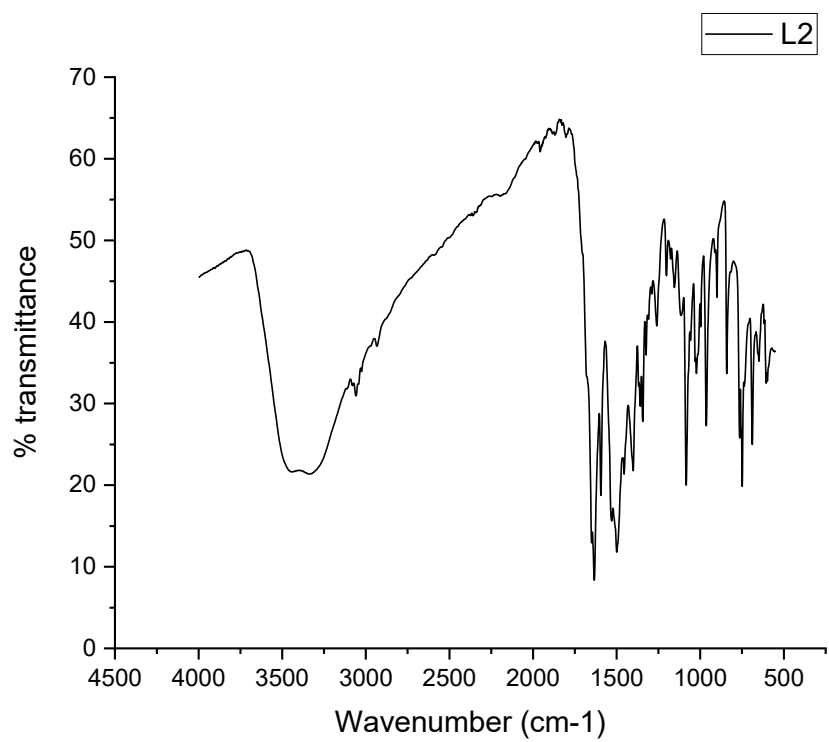
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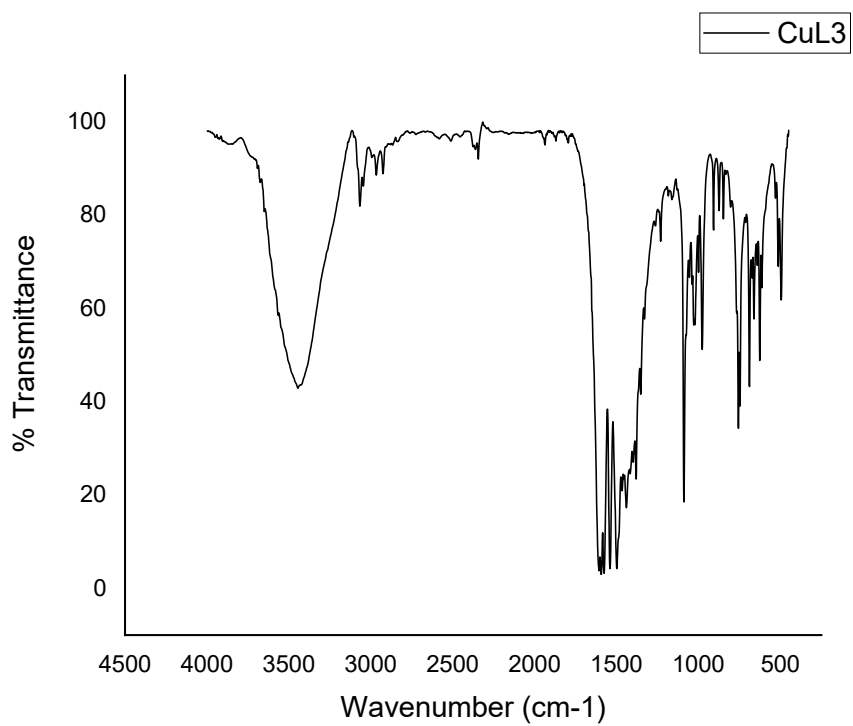
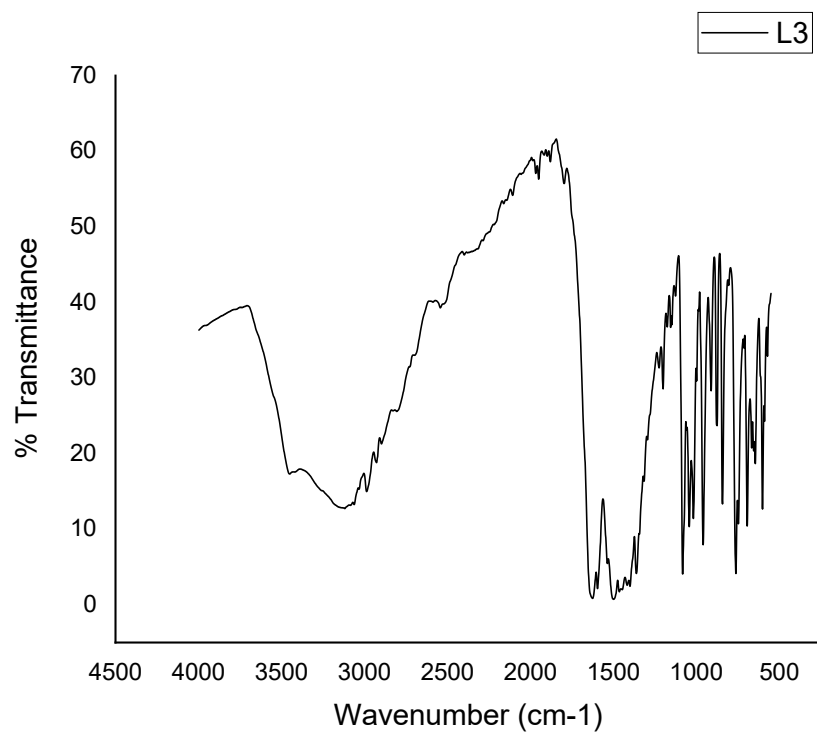
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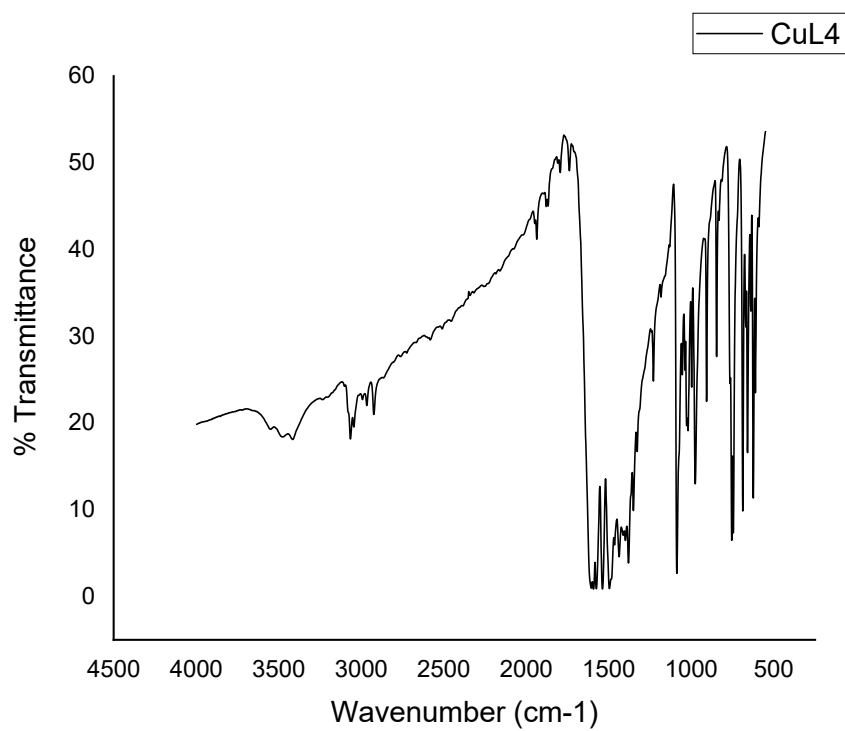
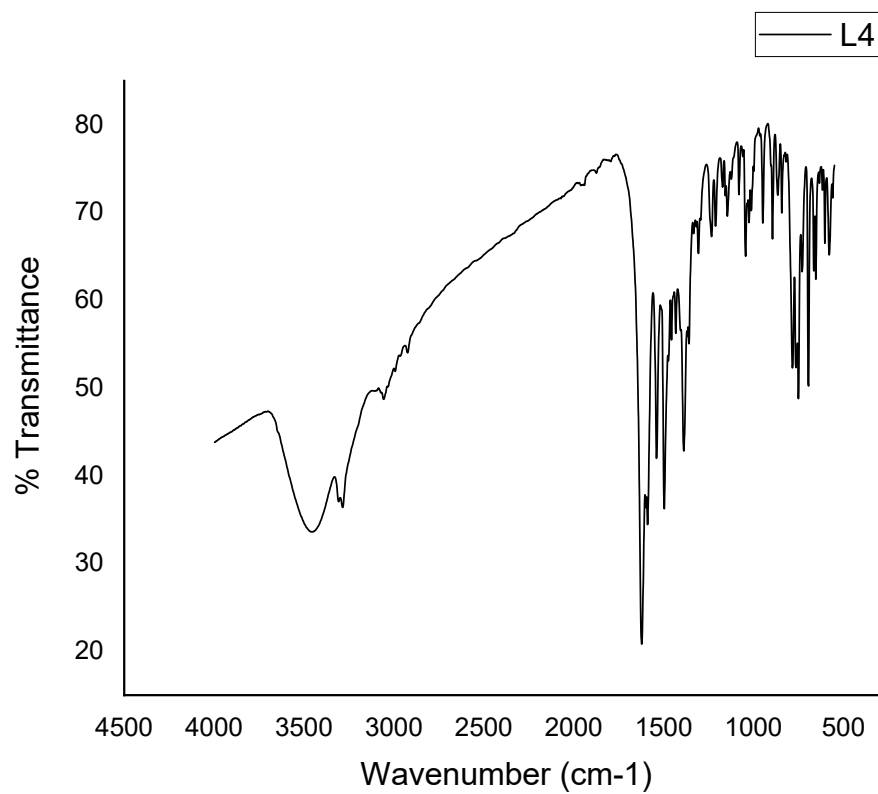
\* Correspondence: authors' email: naveenvkulkarni@am.amrita.edu (N.V.K.); manolov@uni-plovdiv.bg (S.P.M.)

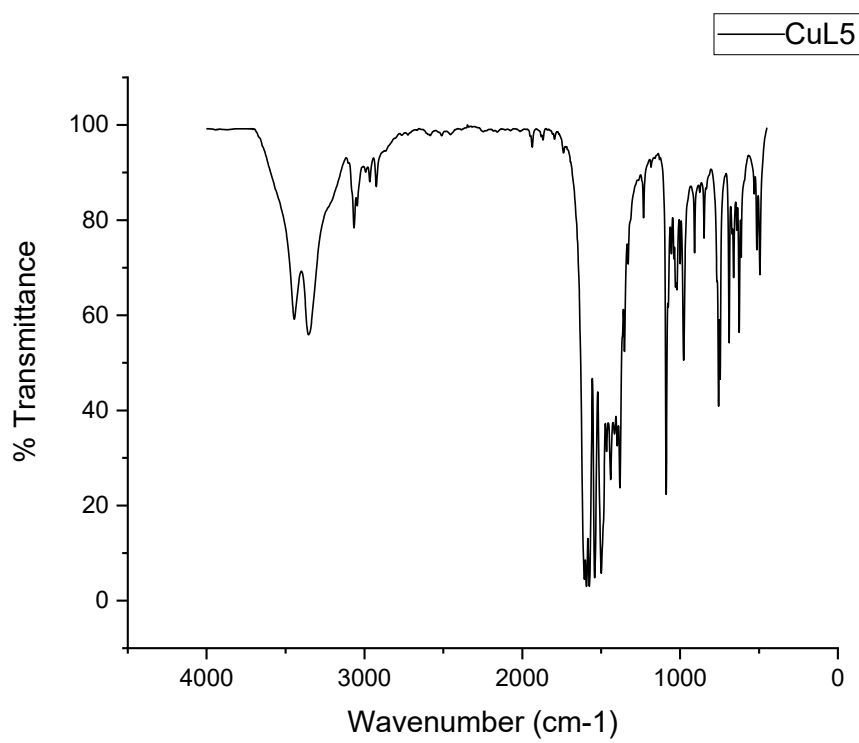
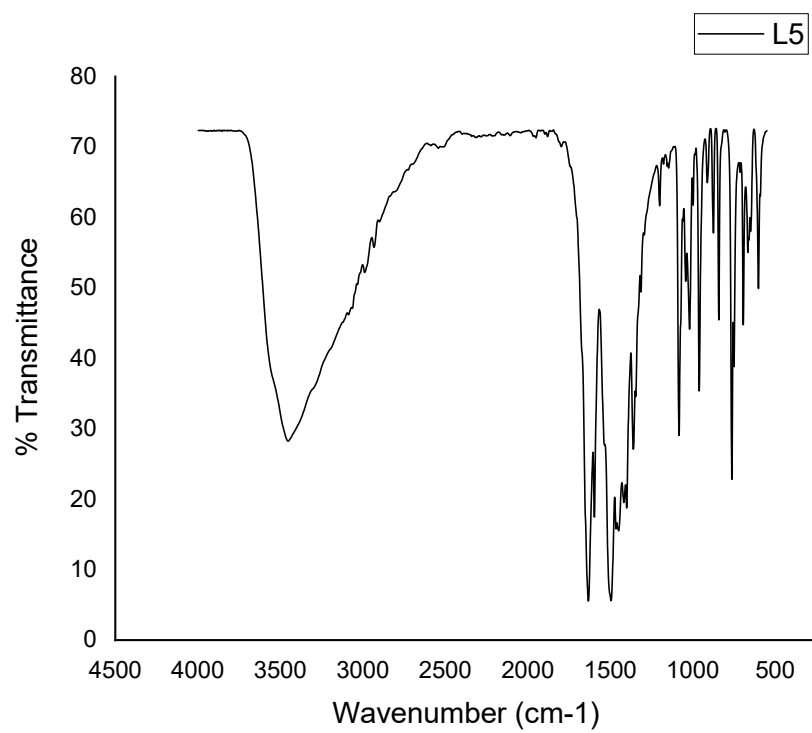
**IR Spectra of organic compounds and copper complexes**

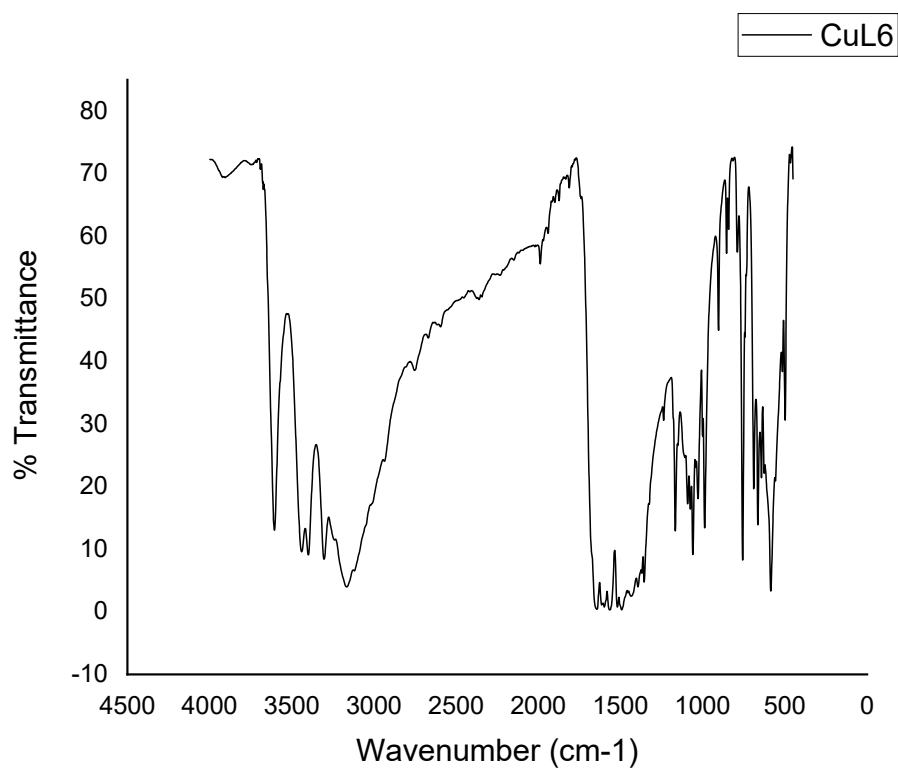
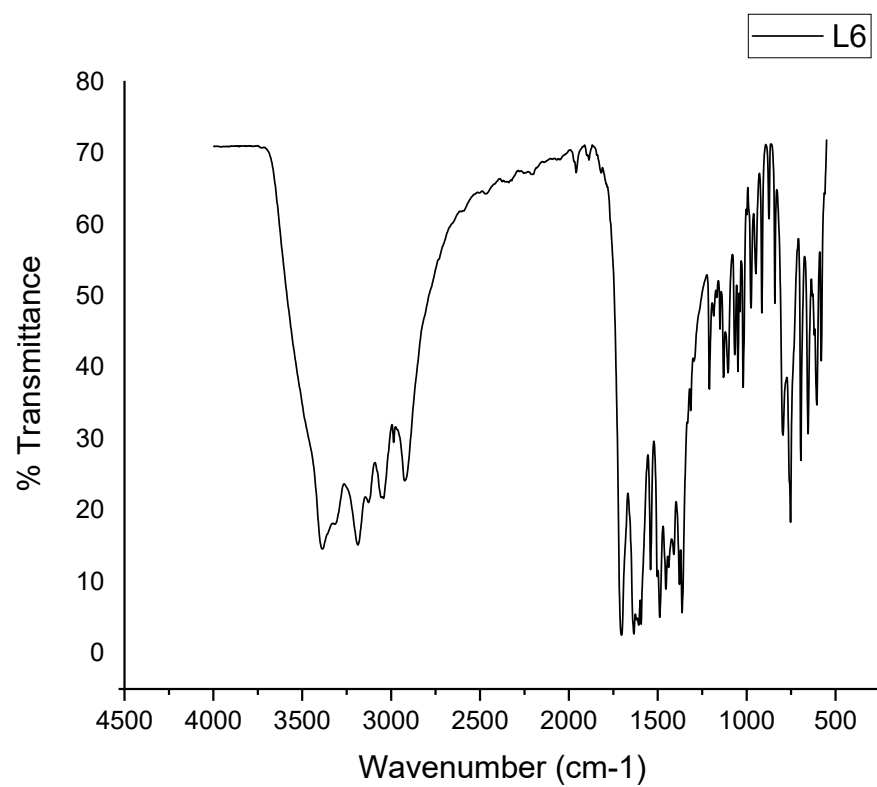


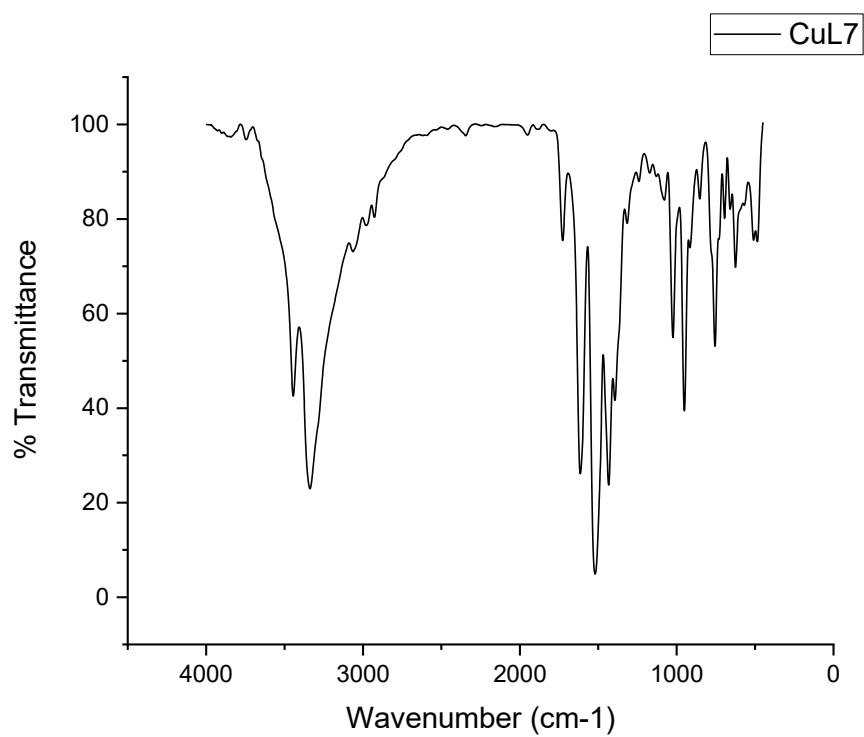
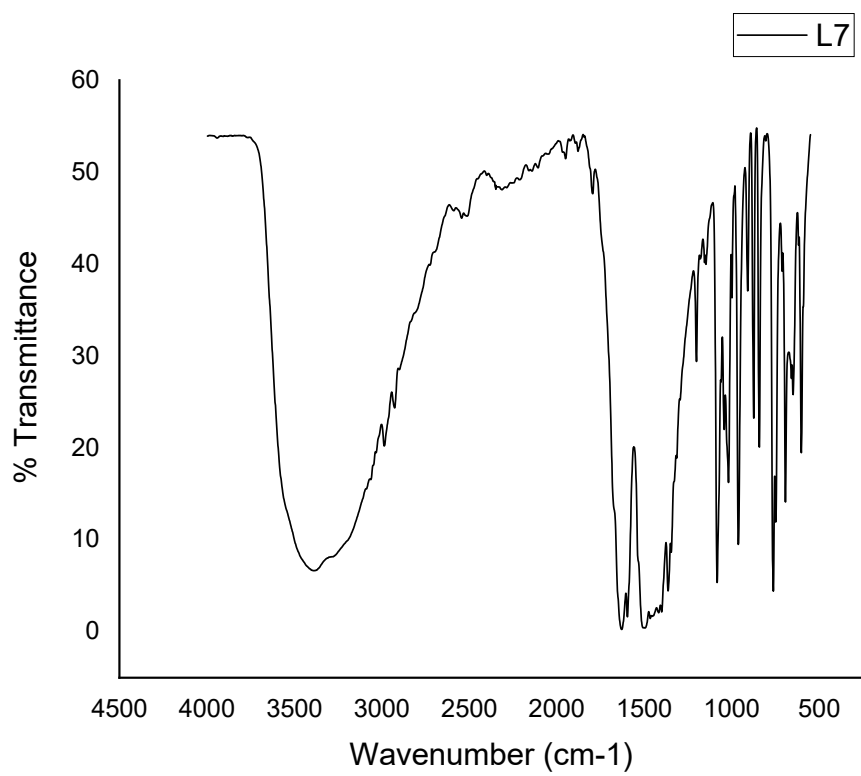




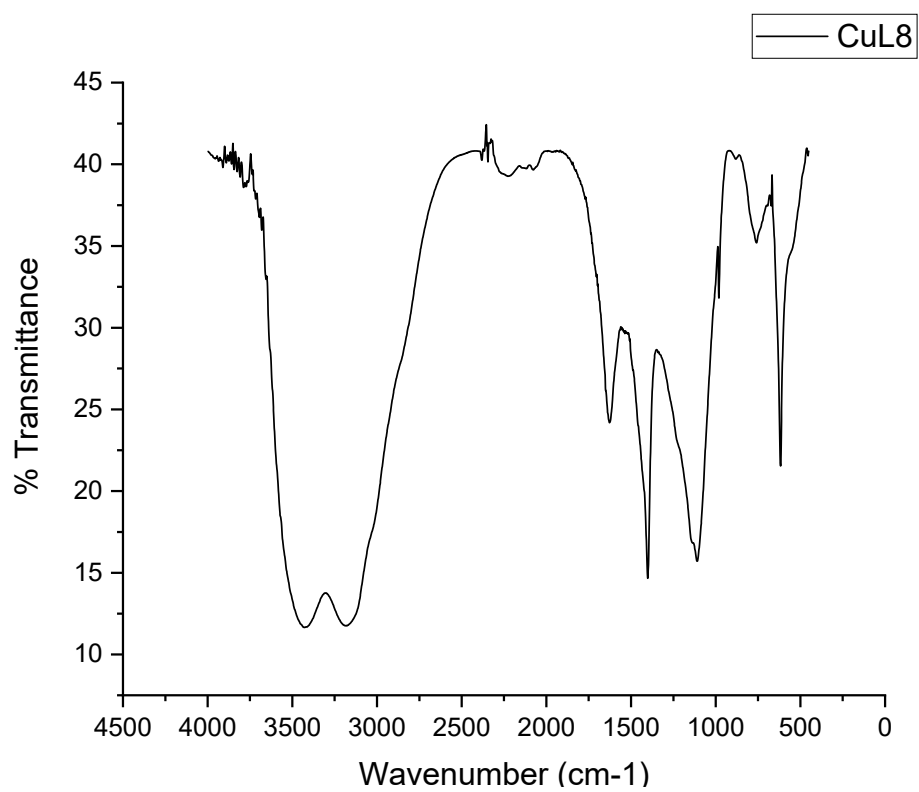
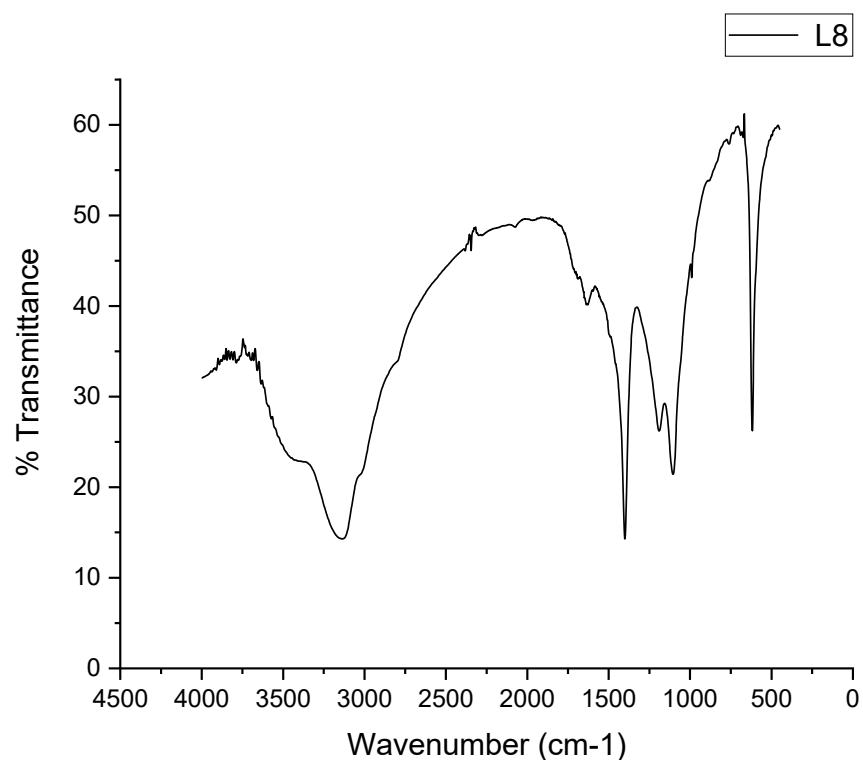


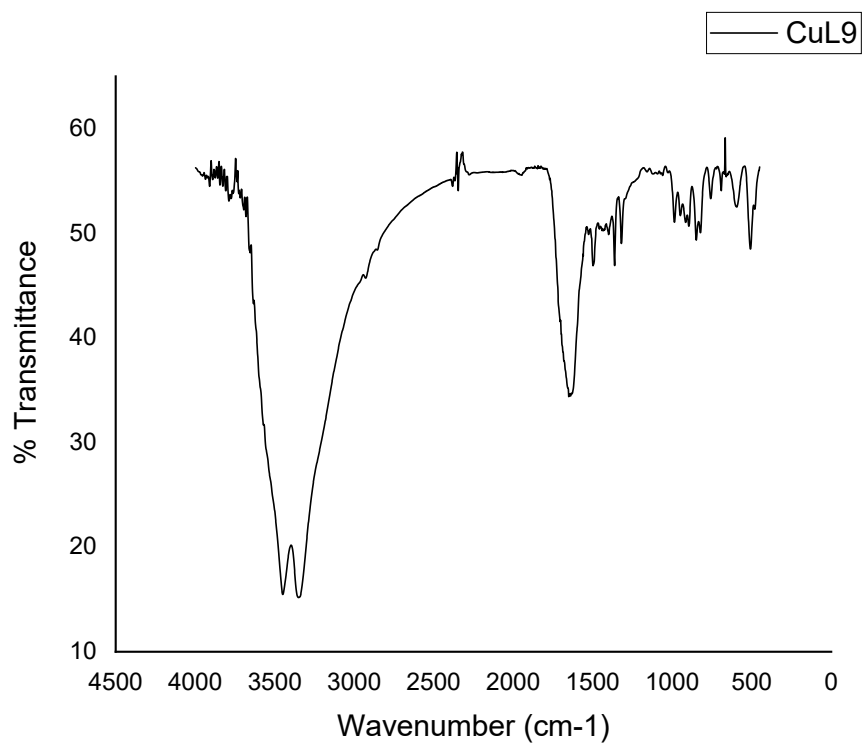
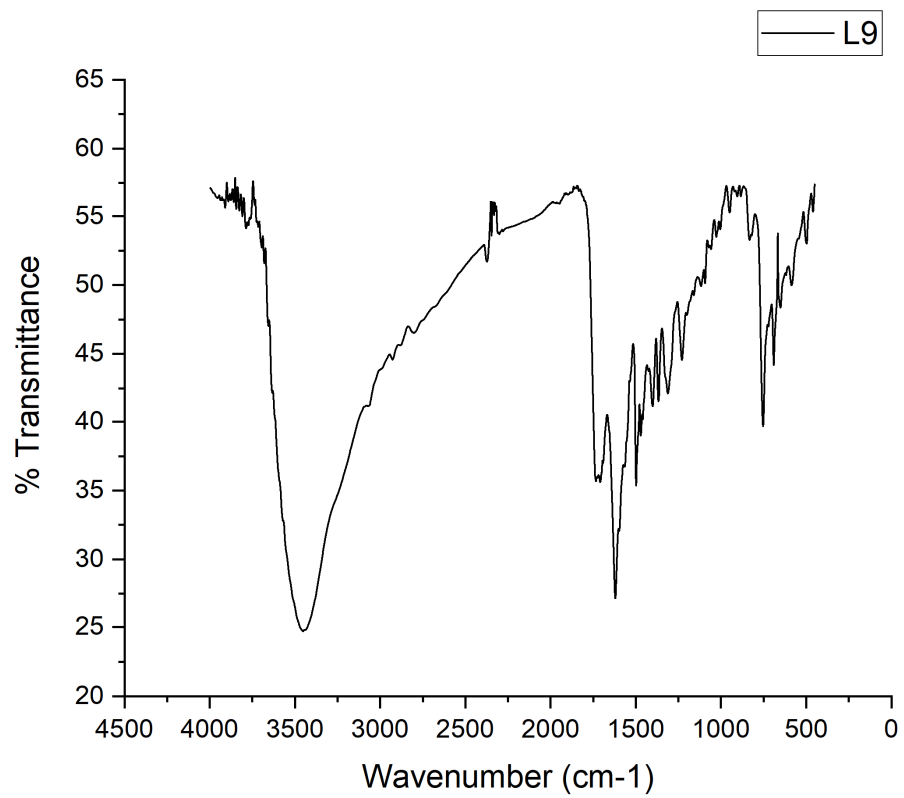




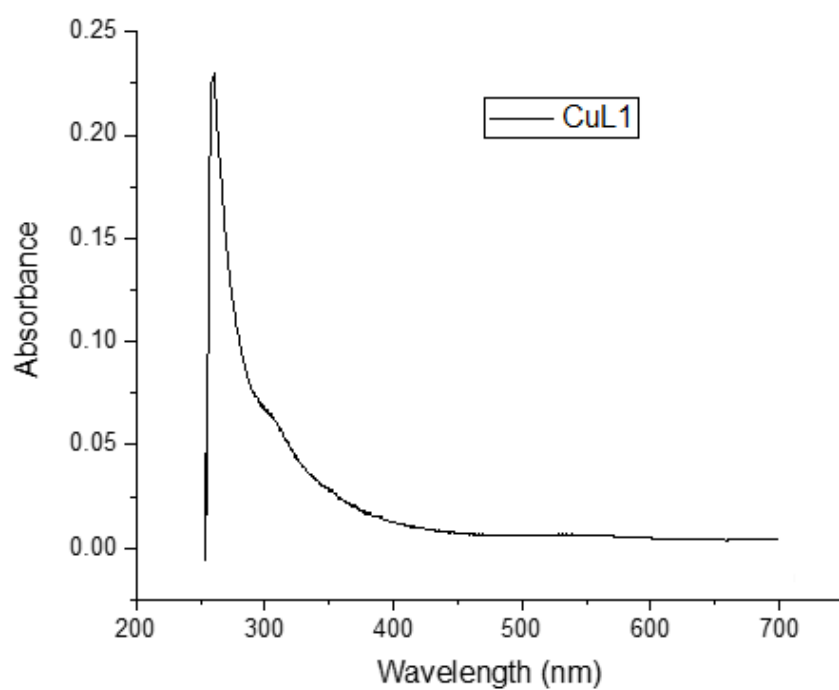
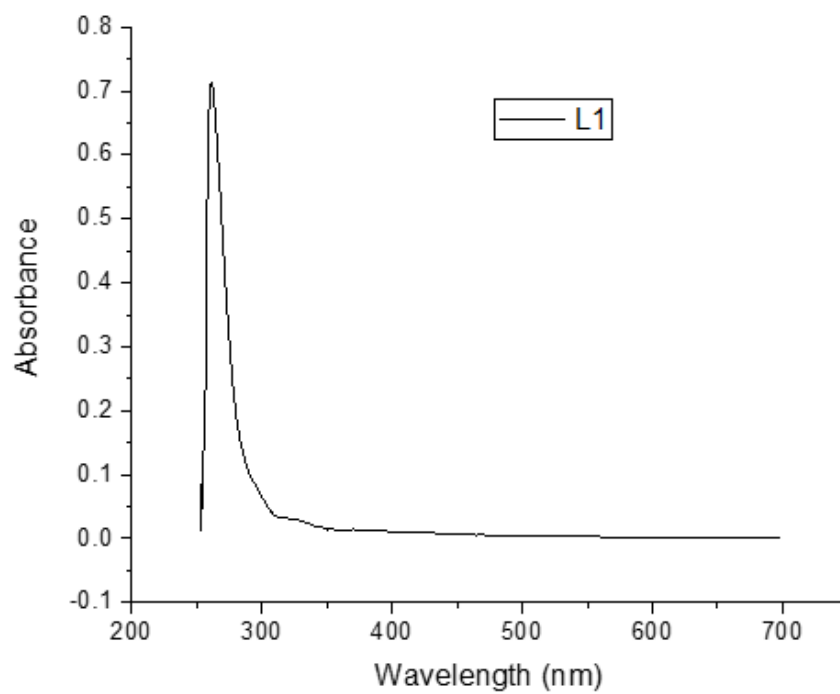


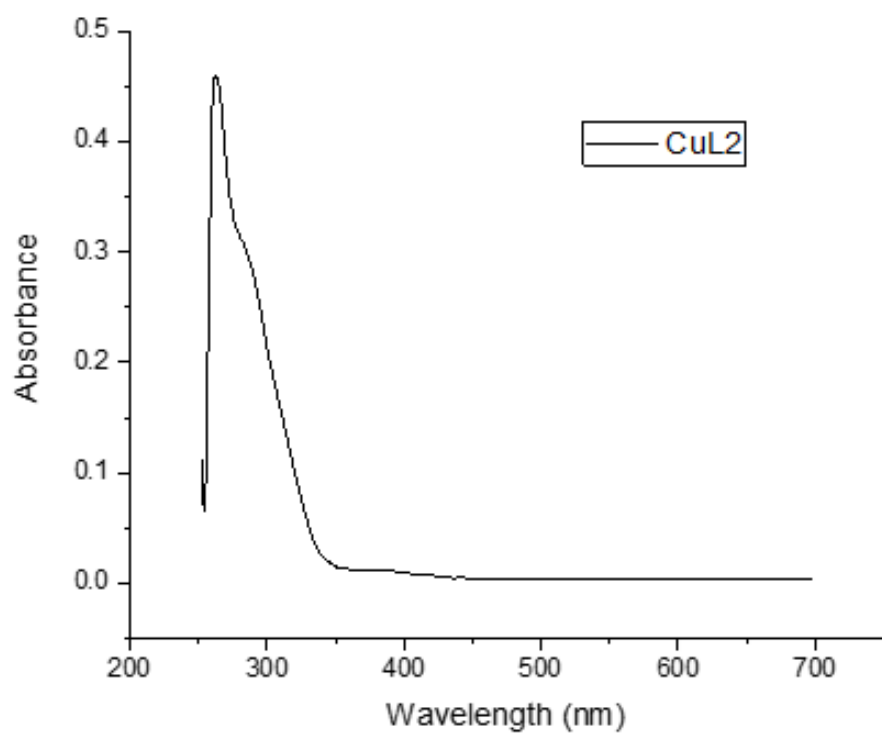
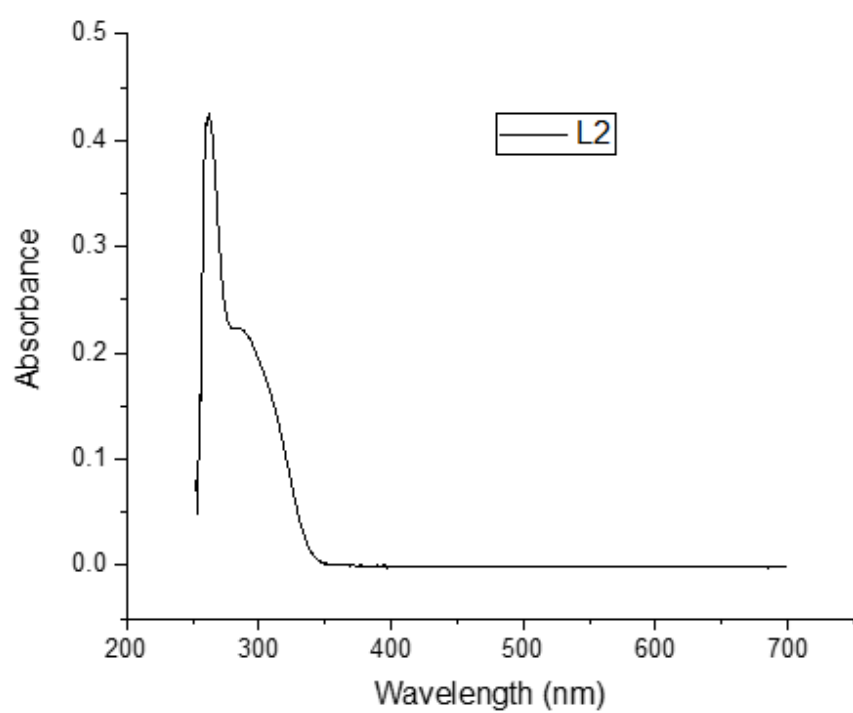


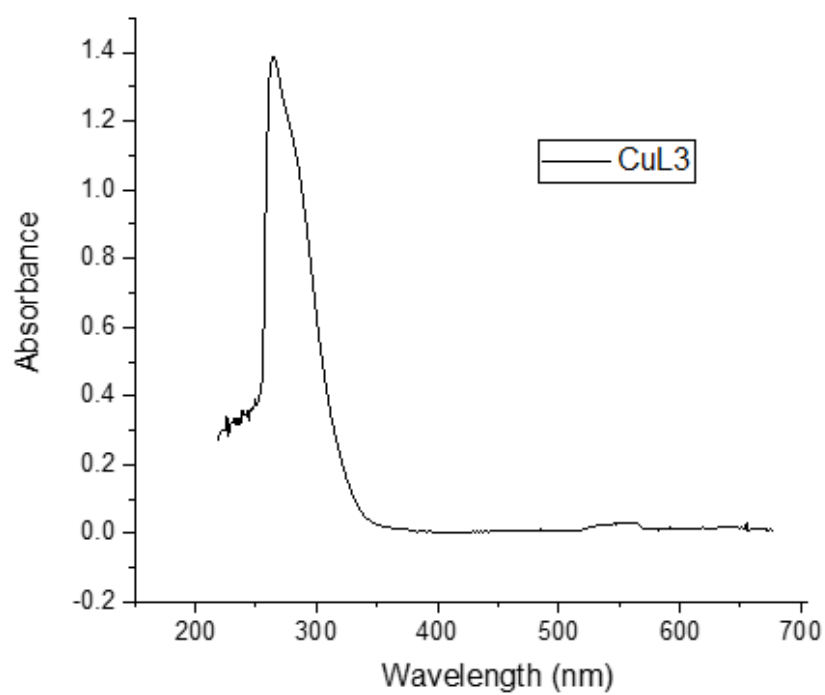
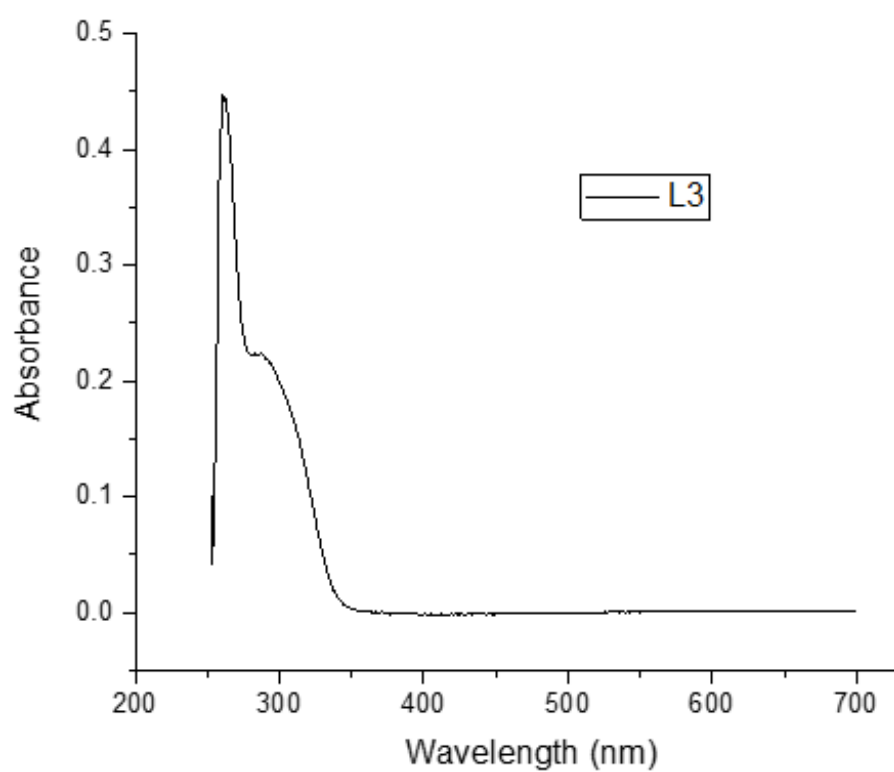


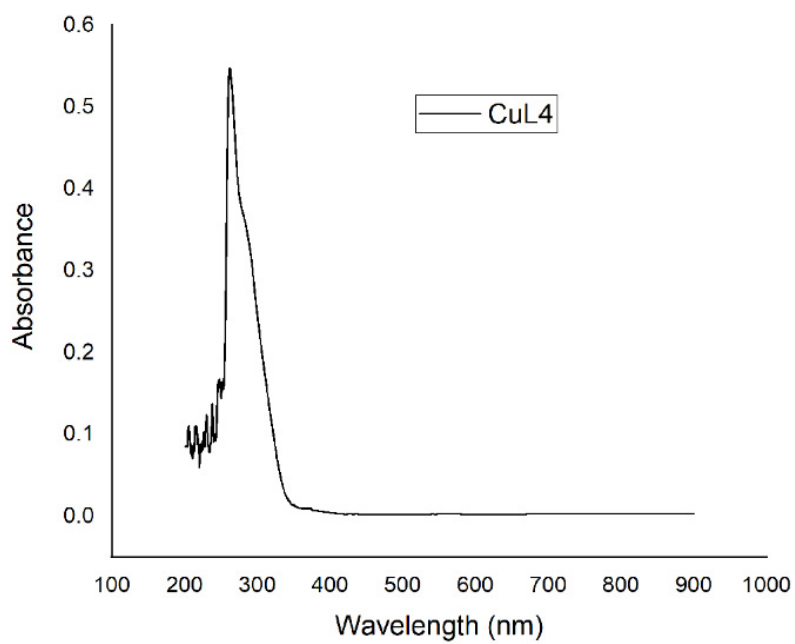
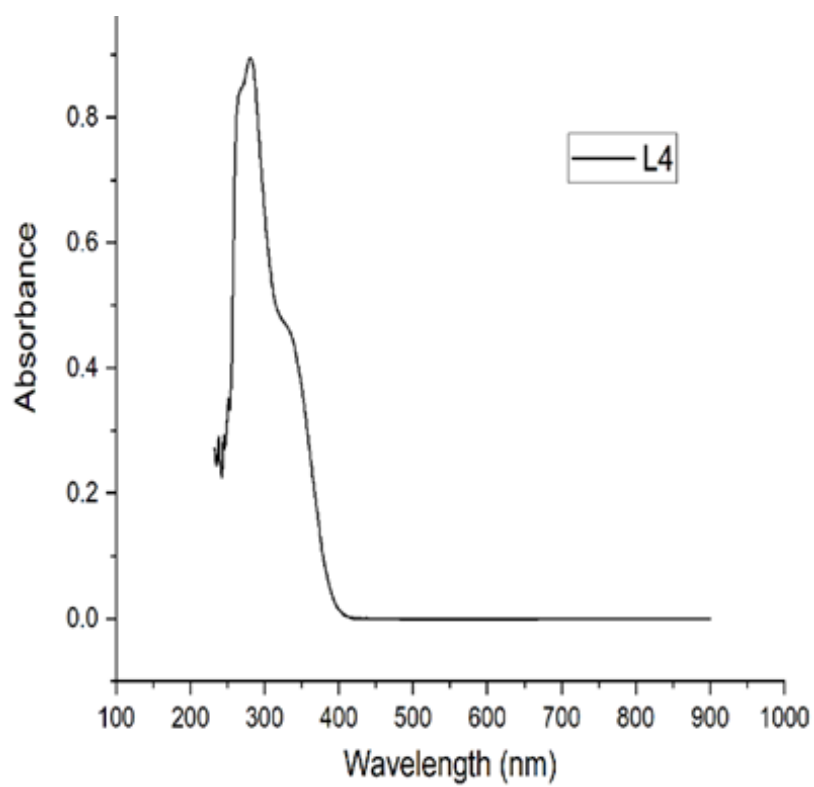


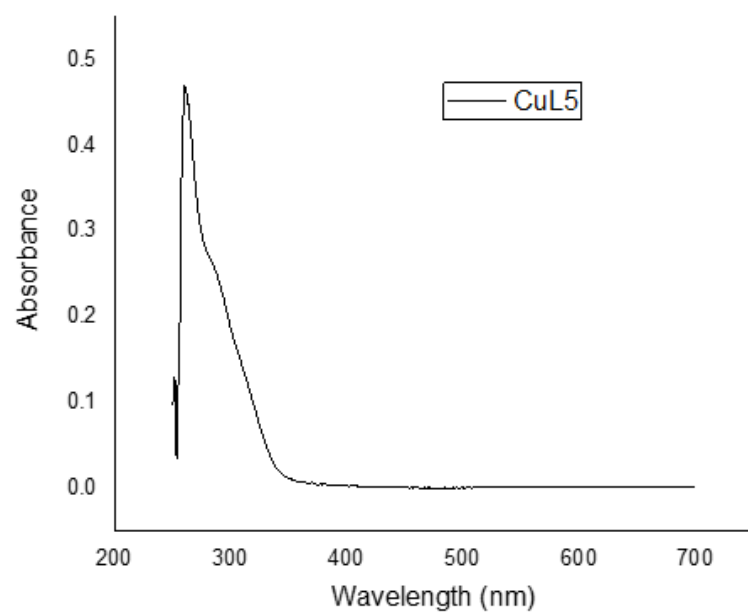
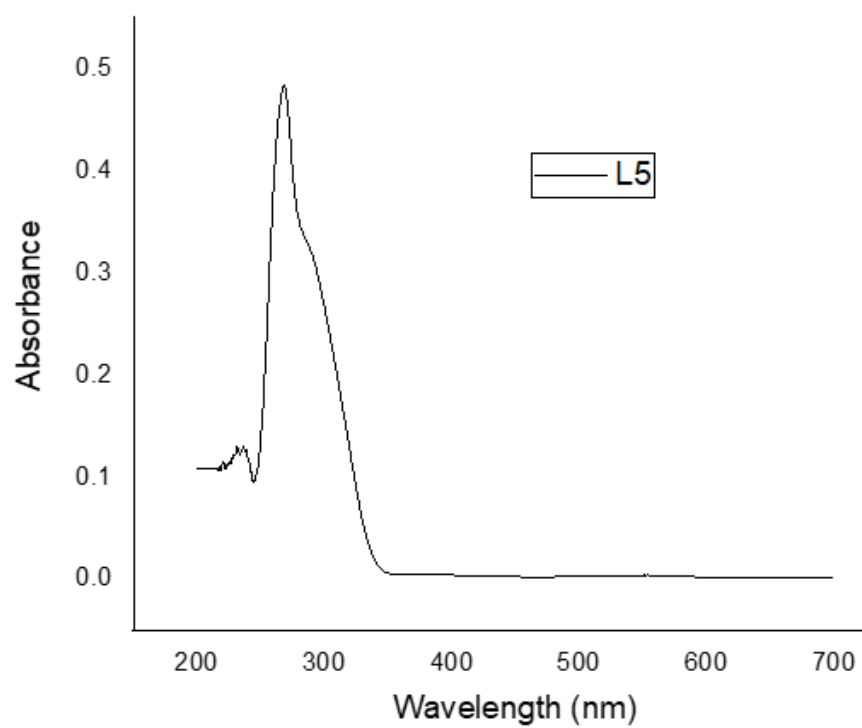
### UV-vis Spectra of organic compounds and copper complexes

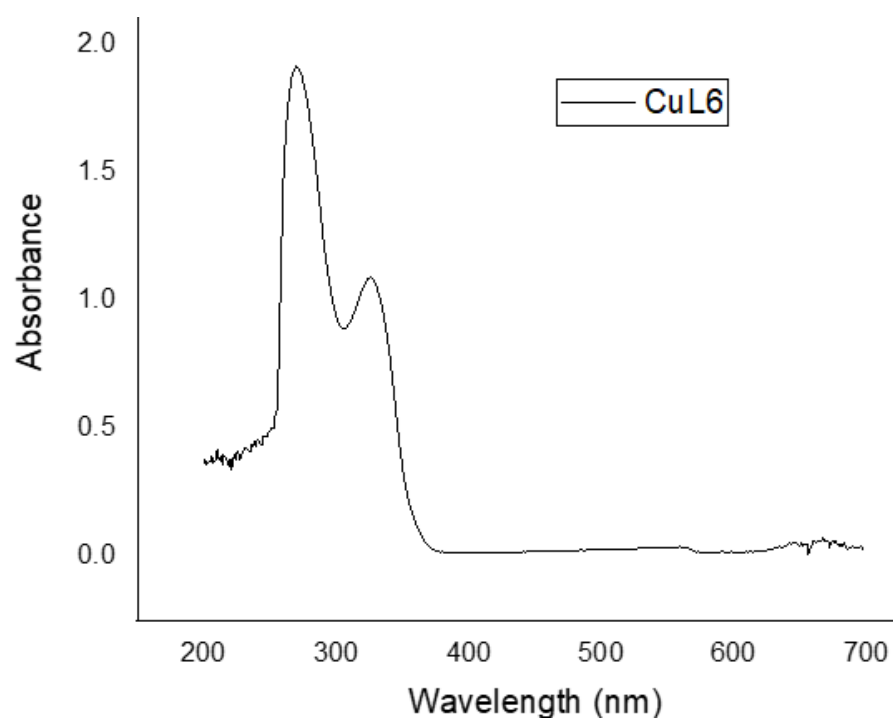
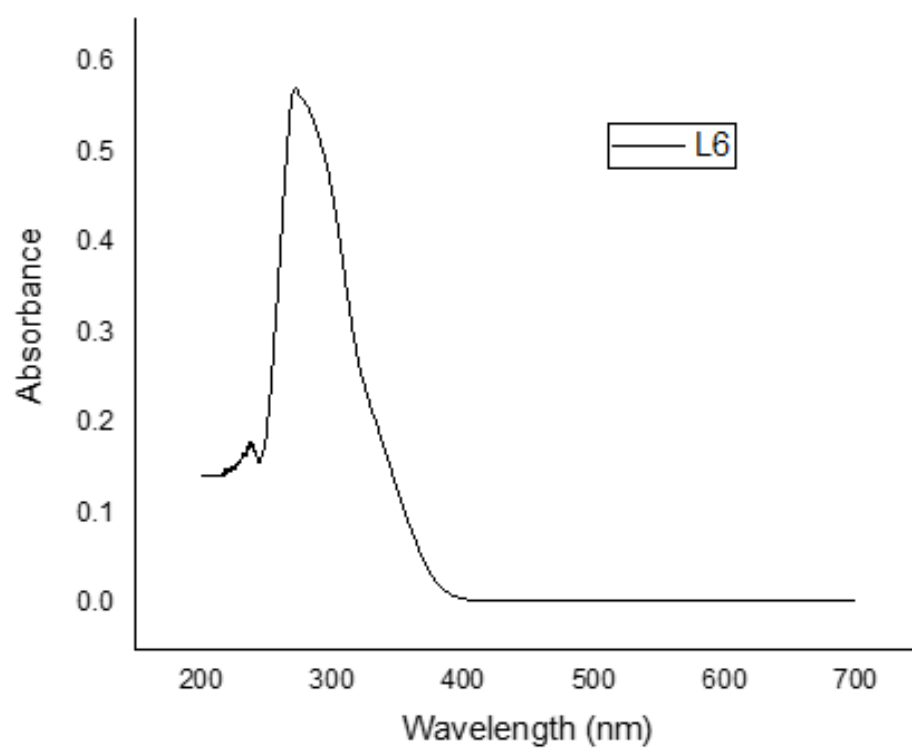




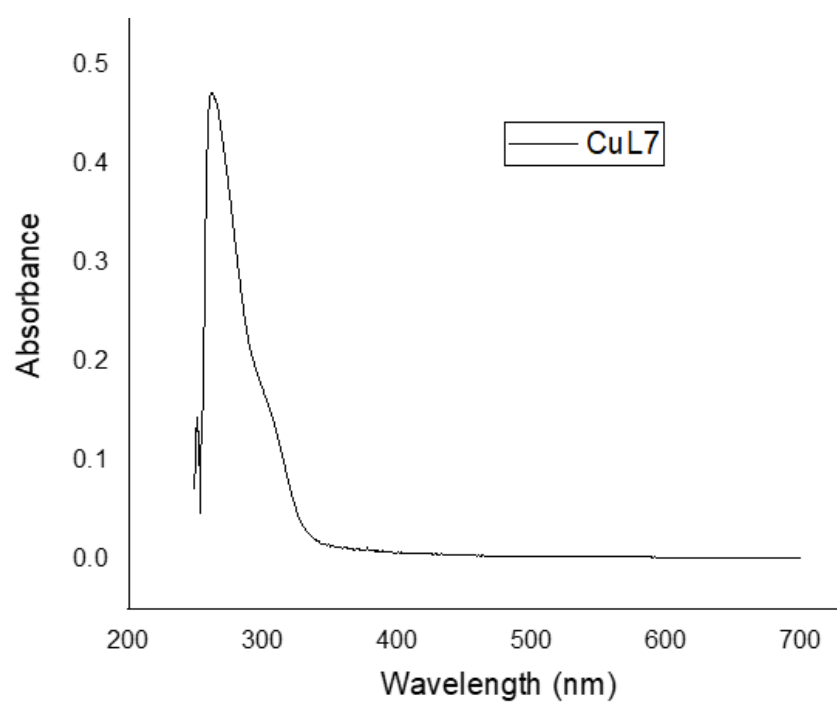
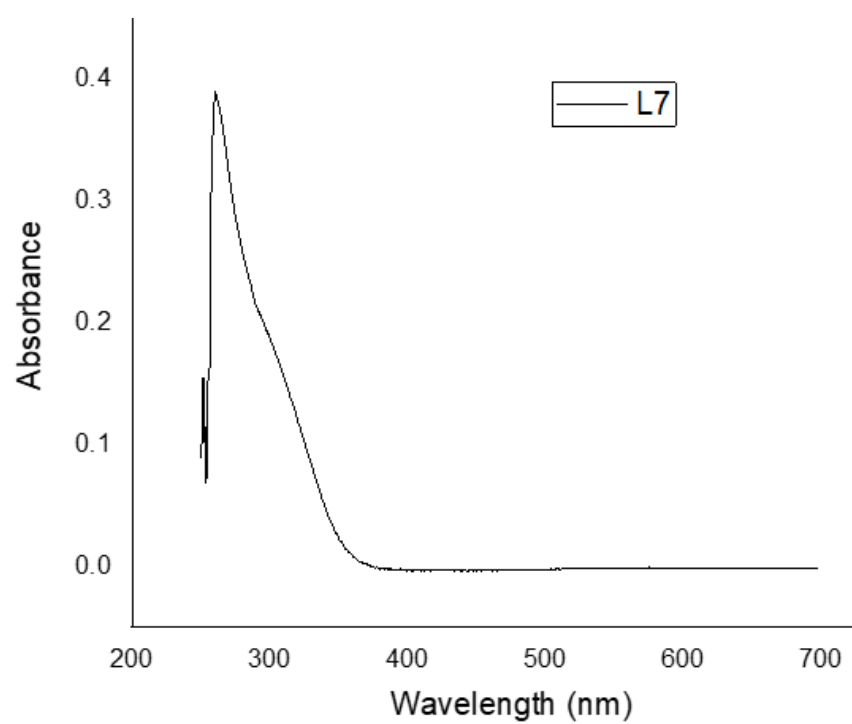


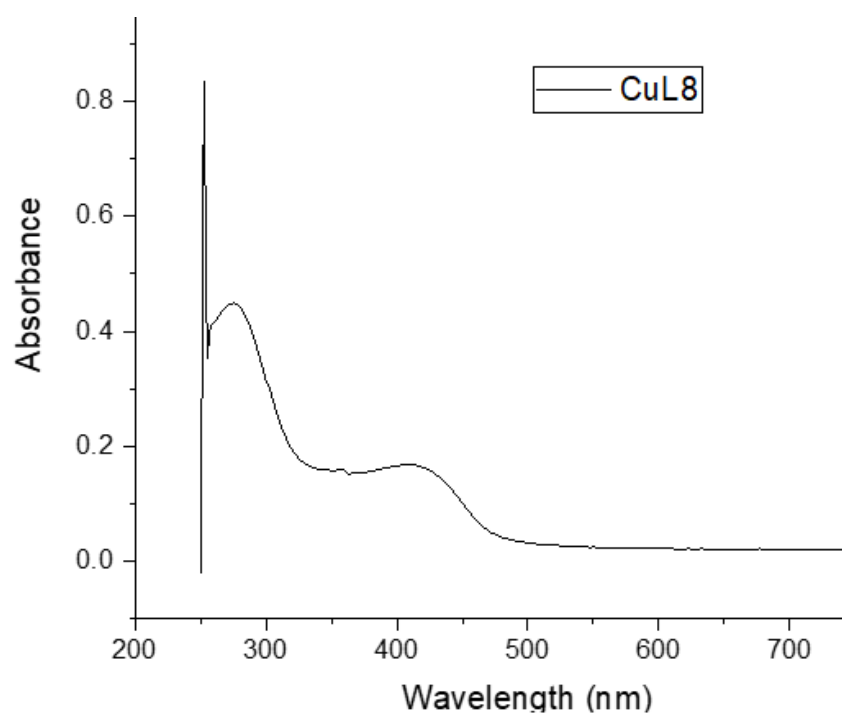
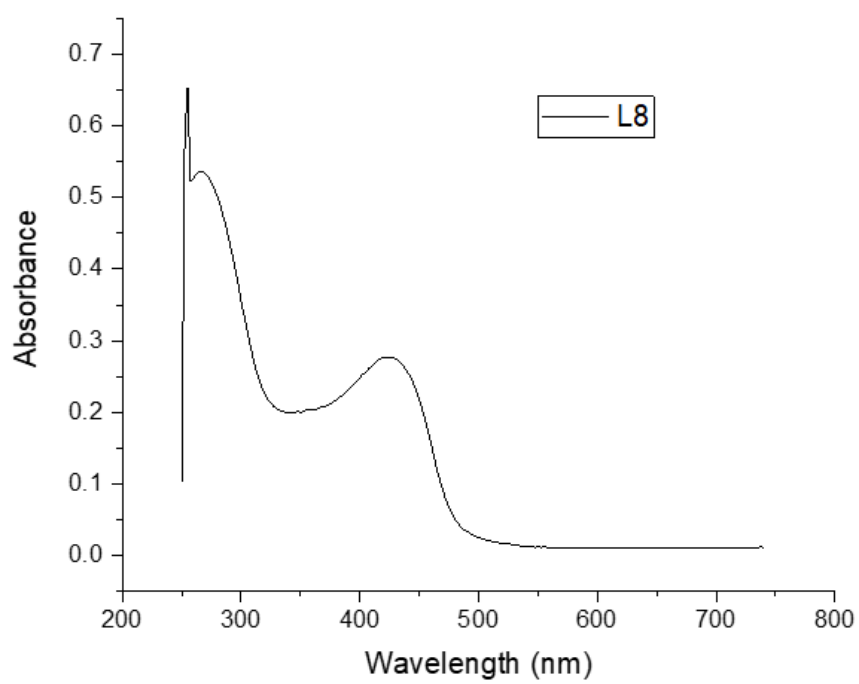


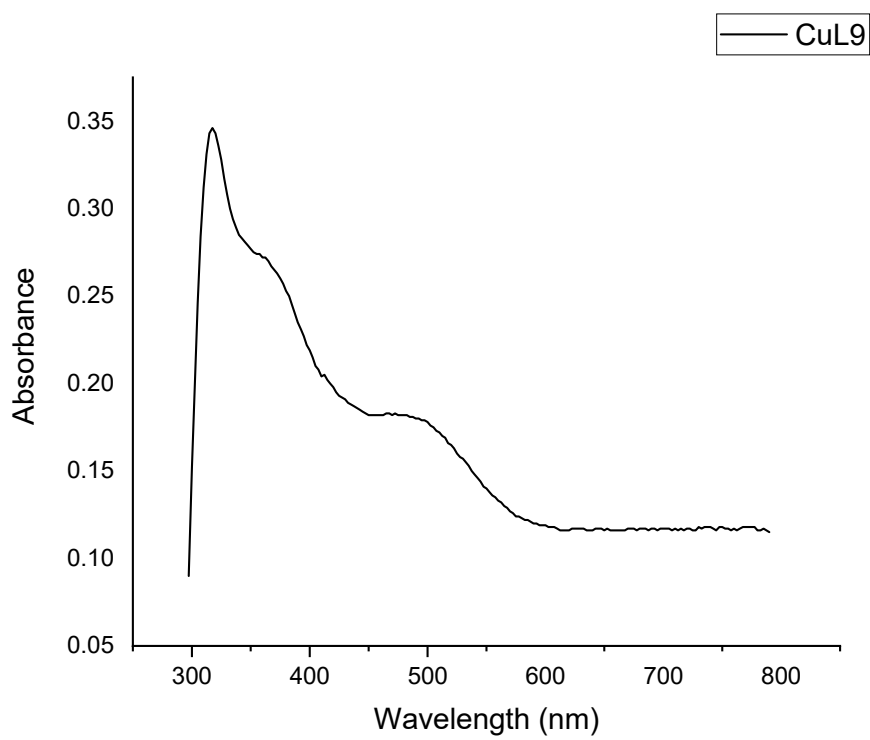
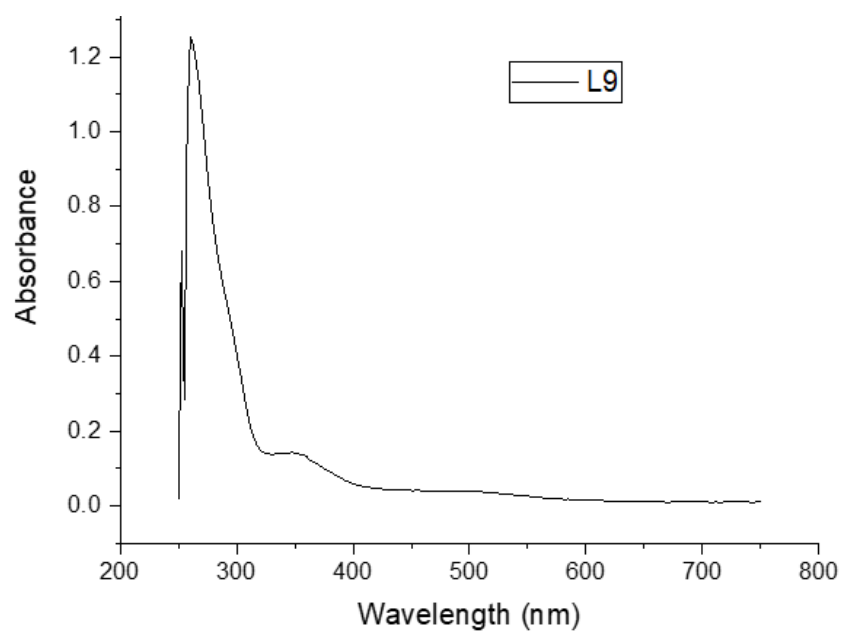




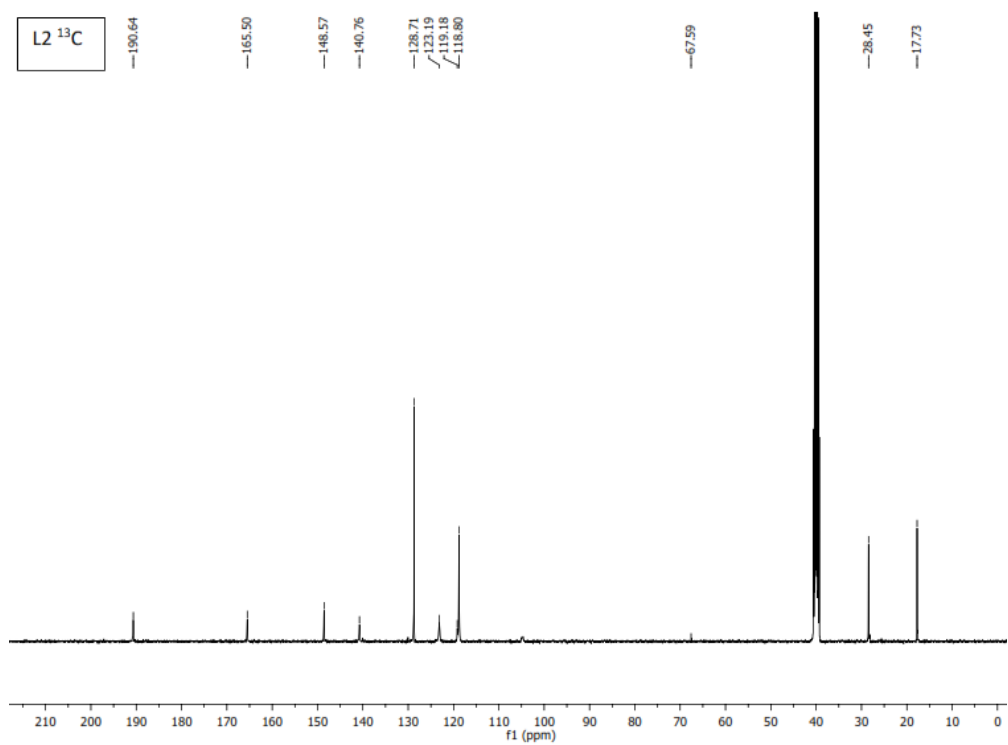
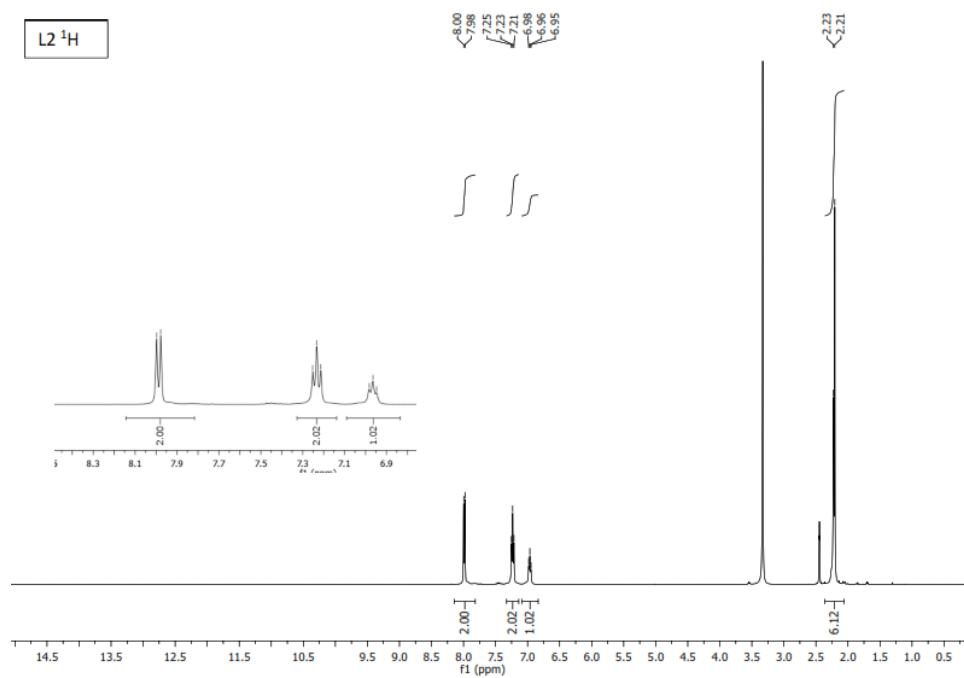


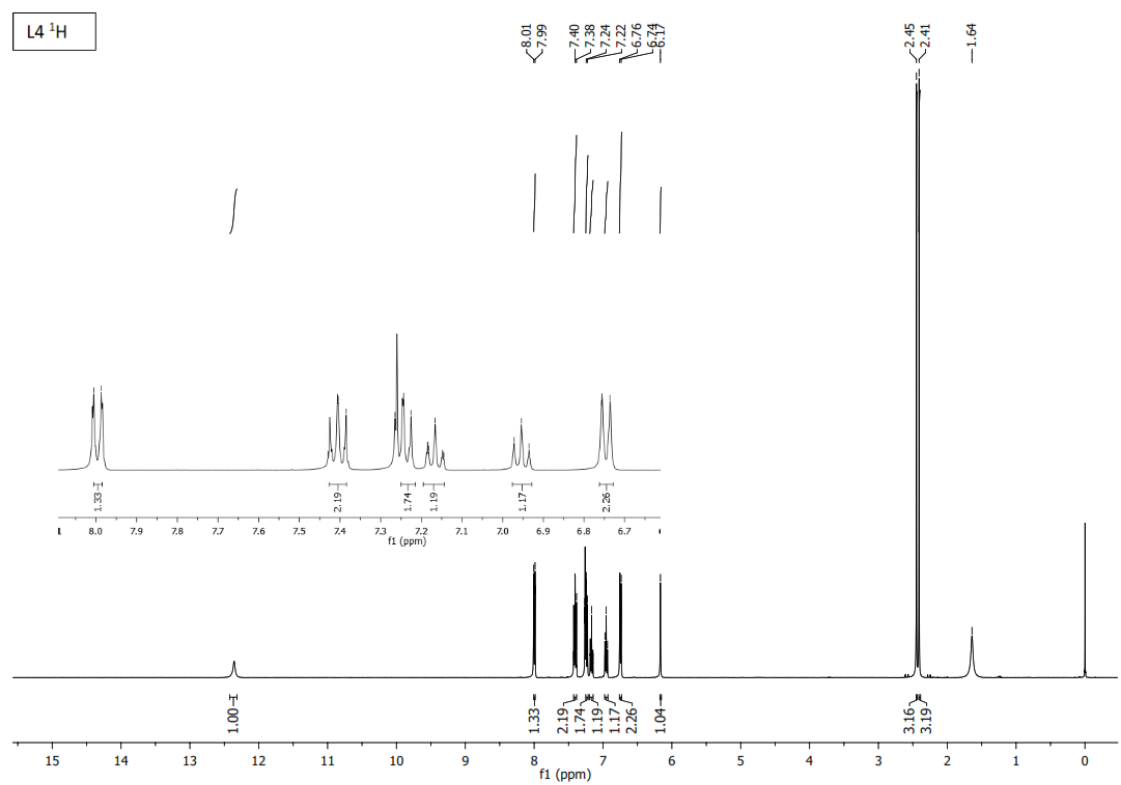
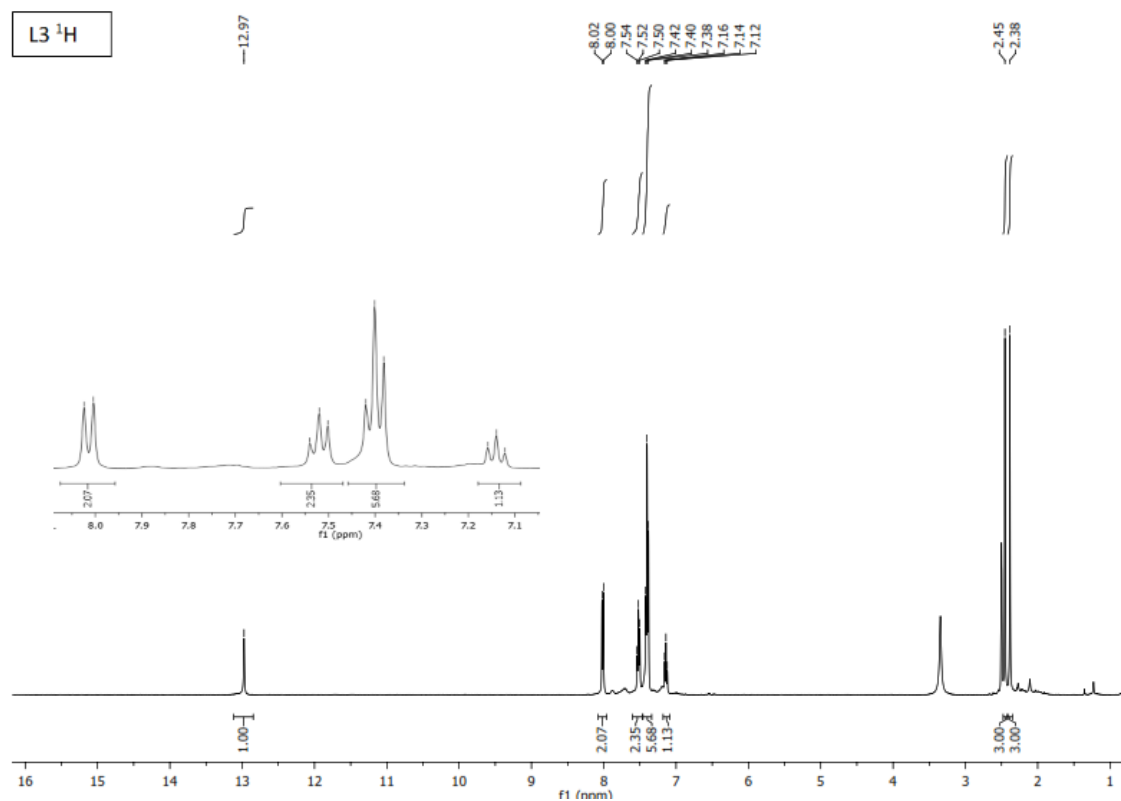


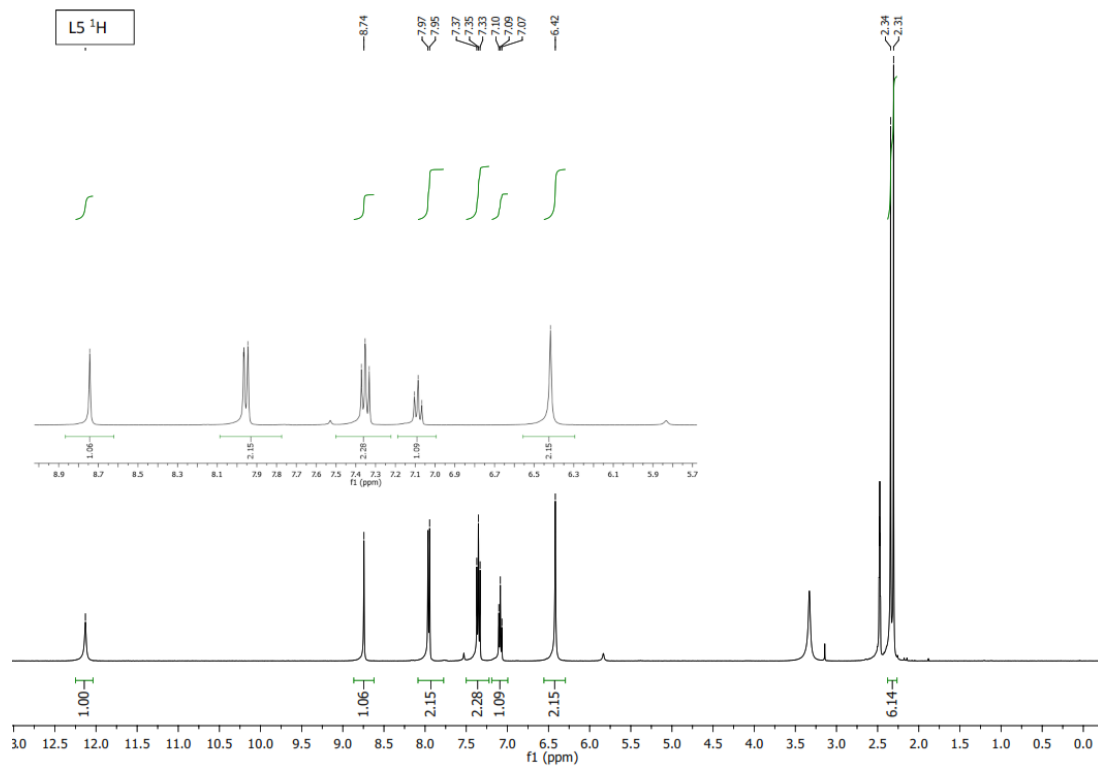
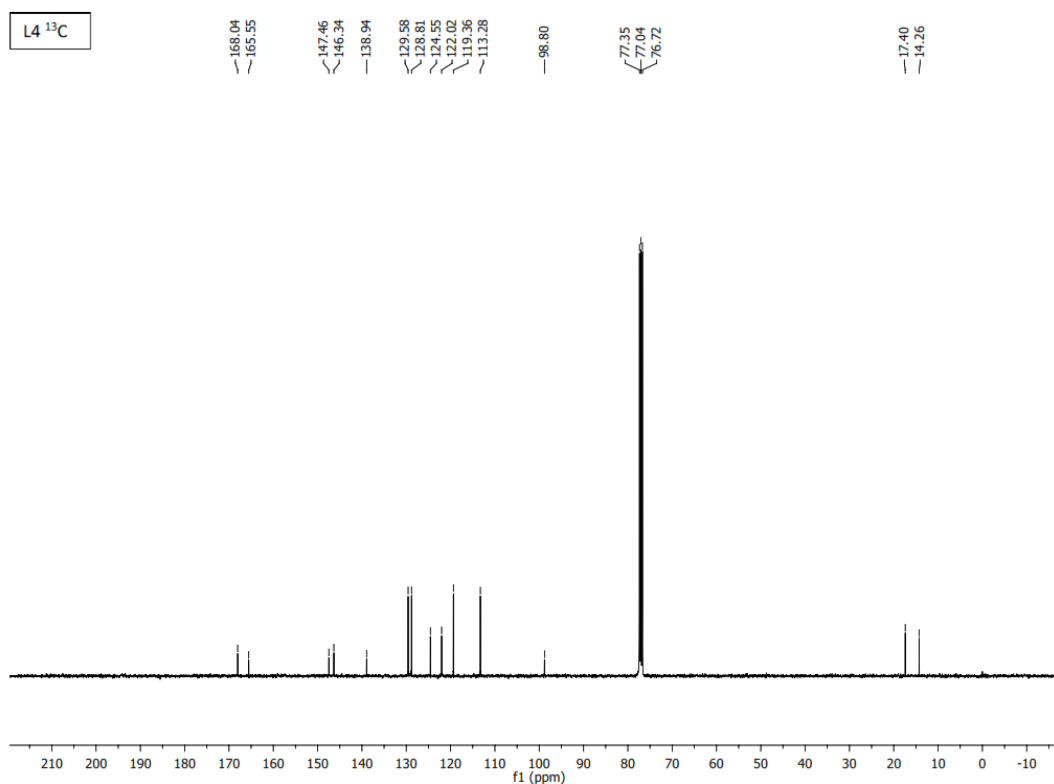


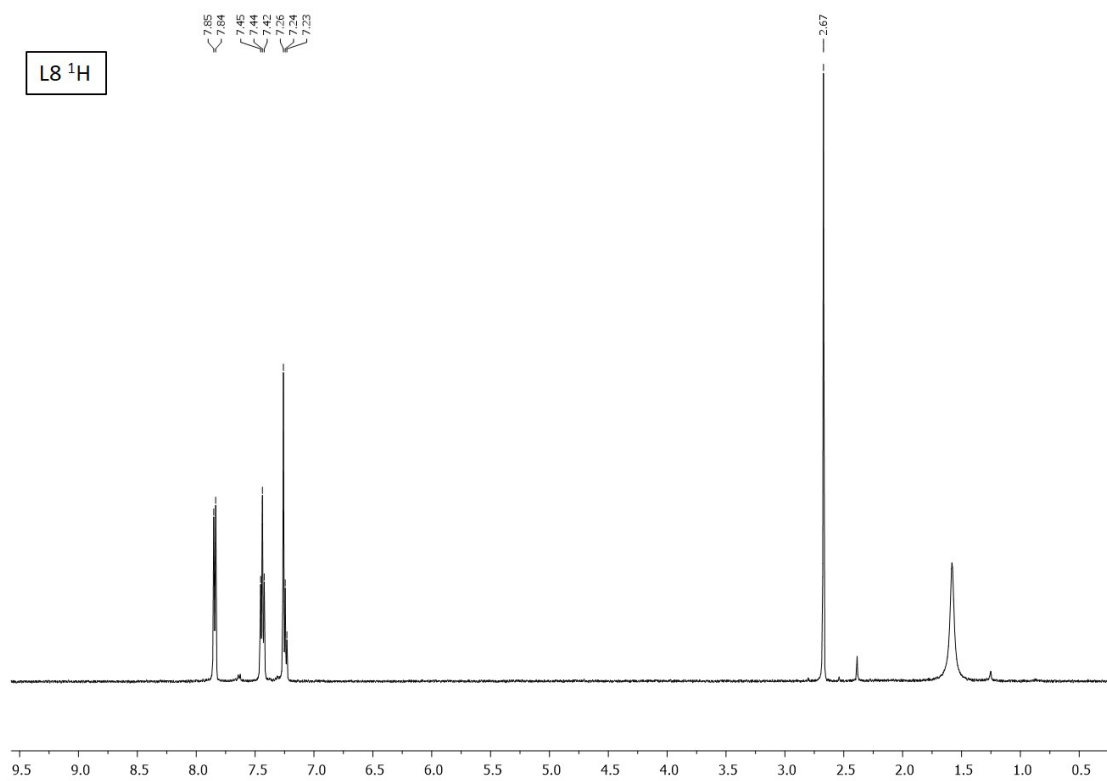
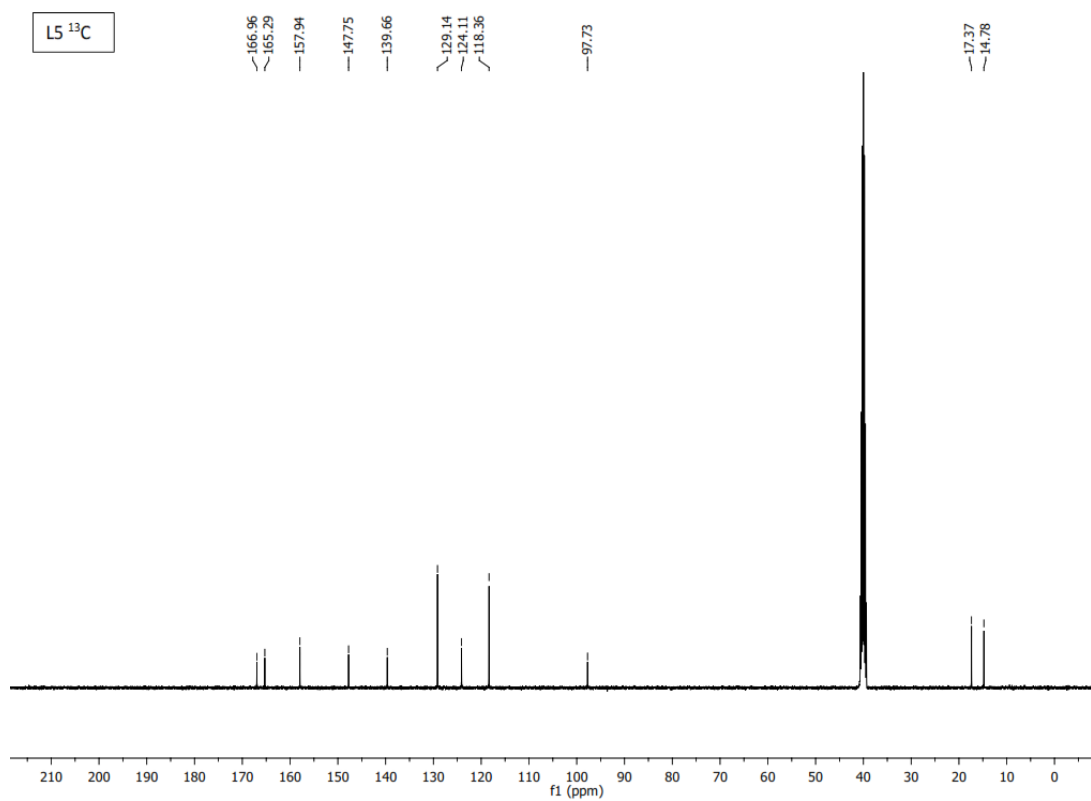


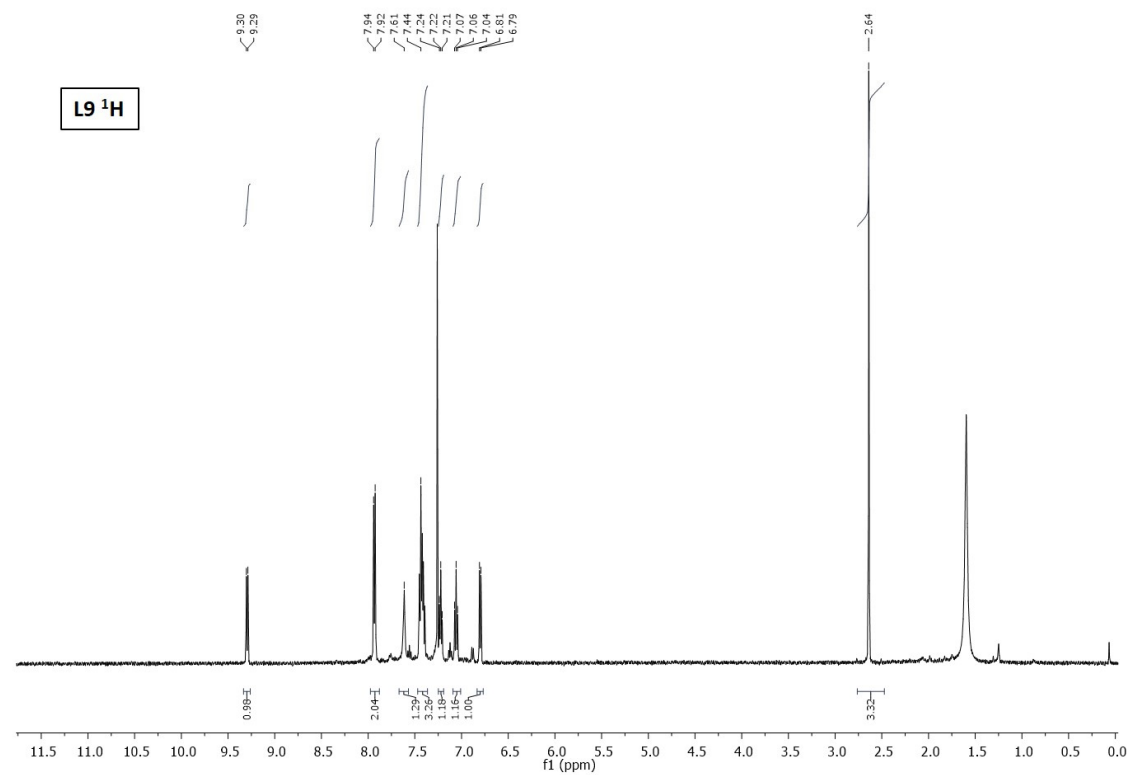
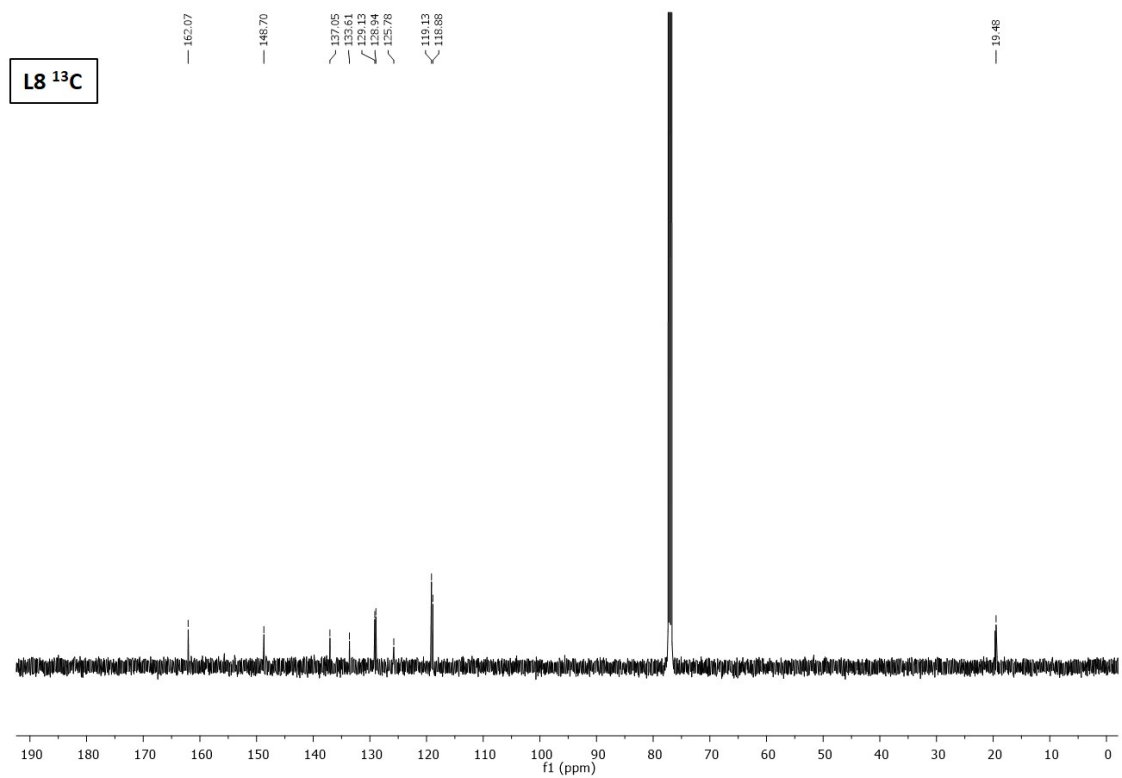
# $^1\text{H}$ & $^{13}\text{C}$ NMR spectra of organic compounds



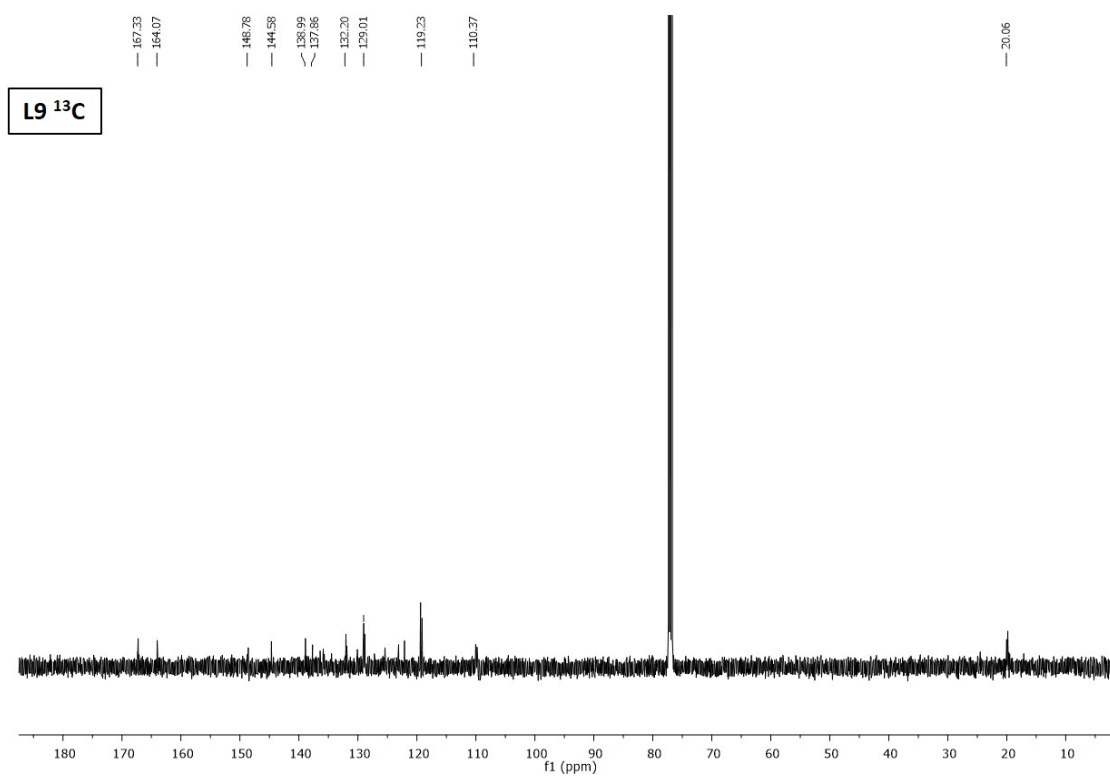




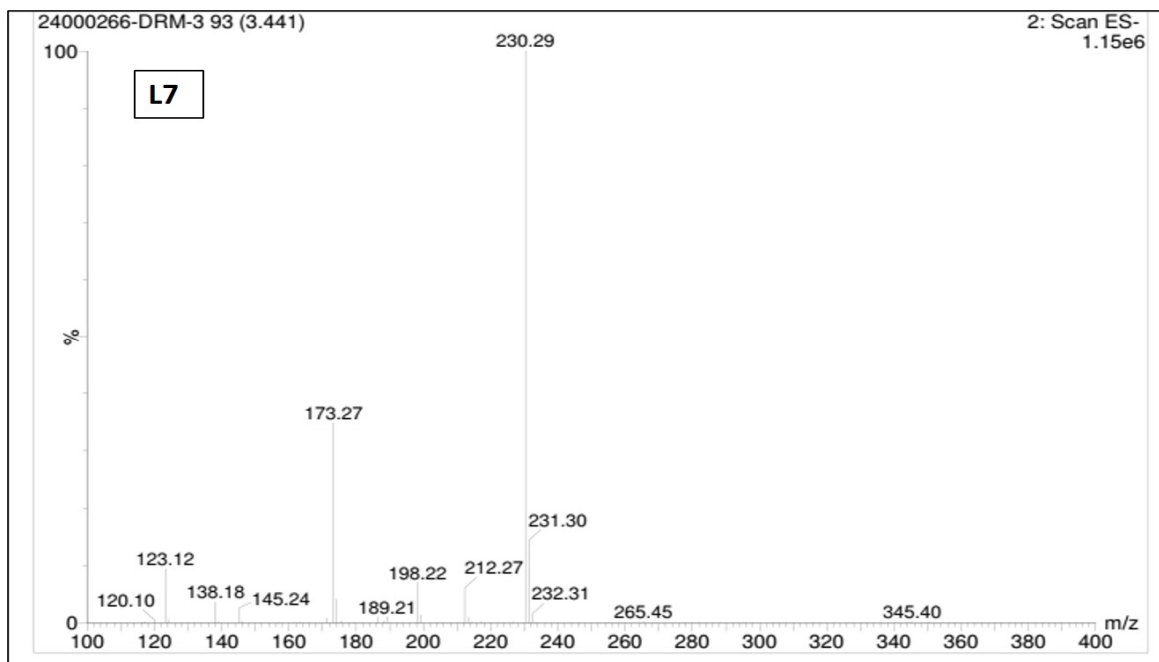
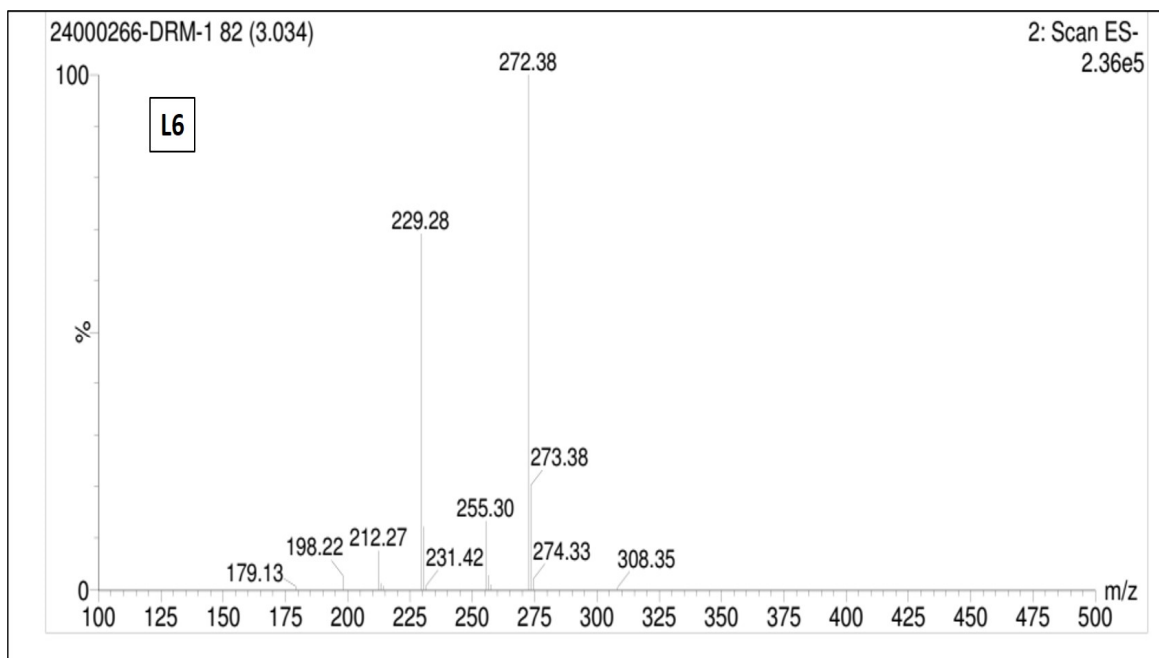








### Mass spectra of the organic compounds



**Table S1.** Antioxidant activity results (HPSA, DPPH, ABTS) of edaravone derivatives (L1-L9) and their Cu(II)-complexes (C1-C9). Results are presented as  $IC_{50} \pm SD/\mu g.mL^{-1}$ .

Compound	$IC_{50} \pm SD/\mu g.mL^{-1}$		
	HPSA	DPPH	ABTS
L1	100.56 $\pm$ 10.51	14.94 $\pm$ 0.31	51.88 $\pm$ 0.54
L2	115.67 $\pm$ 5.01	104.91 $\pm$ 1.59	270.26 $\pm$ 15.26
L3	73.52 $\pm$ 1.74	159.9 $\pm$ 1.20	483.78 $\pm$ 6.50
L4	73.29 $\pm$ 7.12	5.84 $\pm$ 0.20	42.26 $\pm$ 2.74
L5	75.37 $\pm$ 2.57	114.55 $\pm$ 1.04	283.72 $\pm$ 9.47
L6	7.61 $\pm$ 0.31	2.94 $\pm$ 0.04	38.70 $\pm$ 1.63
L7	122.59 $\pm$ 1.75	4.77 $\pm$ 0.07	45.53 $\pm$ 1.25
L8	21.61 $\pm$ 0.86	26.83 $\pm$ 0.86	110.11 $\pm$ 1.70
L9	86.03 $\pm$ 1.55	90.60 $\pm$ 0.63	101.16 $\pm$ 2.25
C1	178.73 $\pm$ 5.08	62.38 $\pm$ 1.11	86.62 $\pm$ 4.90
C2	232.10 $\pm$ 12.07	75.47 $\pm$ 0.73	157.34 $\pm$ 1.81
C3	108.98 $\pm$ 6.65	40.82 $\pm$ 0.79	59.11 $\pm$ 0.54
C4	152.87 $\pm$ 8.27	66.65 $\pm$ 0.76	122.33 $\pm$ 1.18
C5	231.86 $\pm$ 16.18	89.99 $\pm$ 1.50	131.59 $\pm$ 2.27
C6	188.77 $\pm$ 13.61	36.35 $\pm$ 0.86	41.27 $\pm$ 2.18
C7	207.52 $\pm$ 13.48	14.15 $\pm$ 0.50	18.23 $\pm$ 0.78
C8	166.79 $\pm$ 9.95	22.55 $\pm$ 0.92	40.55 $\pm$ 1.31
C9	122.96 $\pm$ 7.62	41.21 $\pm$ 0.93	34.12 $\pm$ 2.49