

# Photophysical properties and *in vitro* cytotoxicity studies of new Ru(II) carbonyl complexes and mixed geometrical Ru(II)-Ni(II) complex in HS-DNA/BSA protein and human lung (A549) and liver (HepG2) cells

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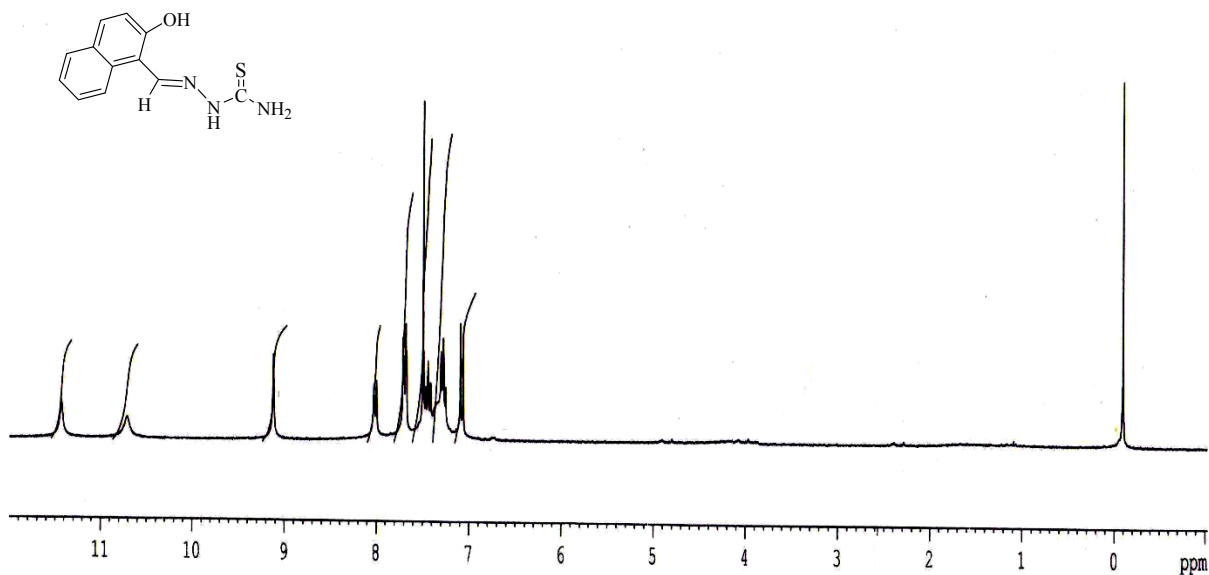


Fig. S1 <sup>1</sup>H-NMR spectrum of [H<sub>2</sub>-(Nap-tsc)]

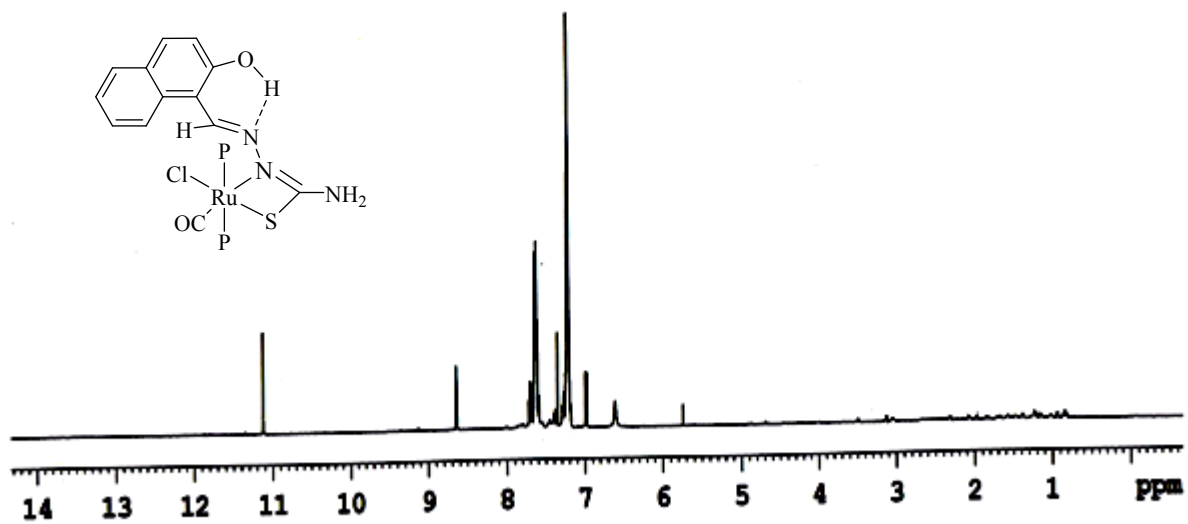


Fig. S2 <sup>1</sup>H-NMR spectrum of complex 1

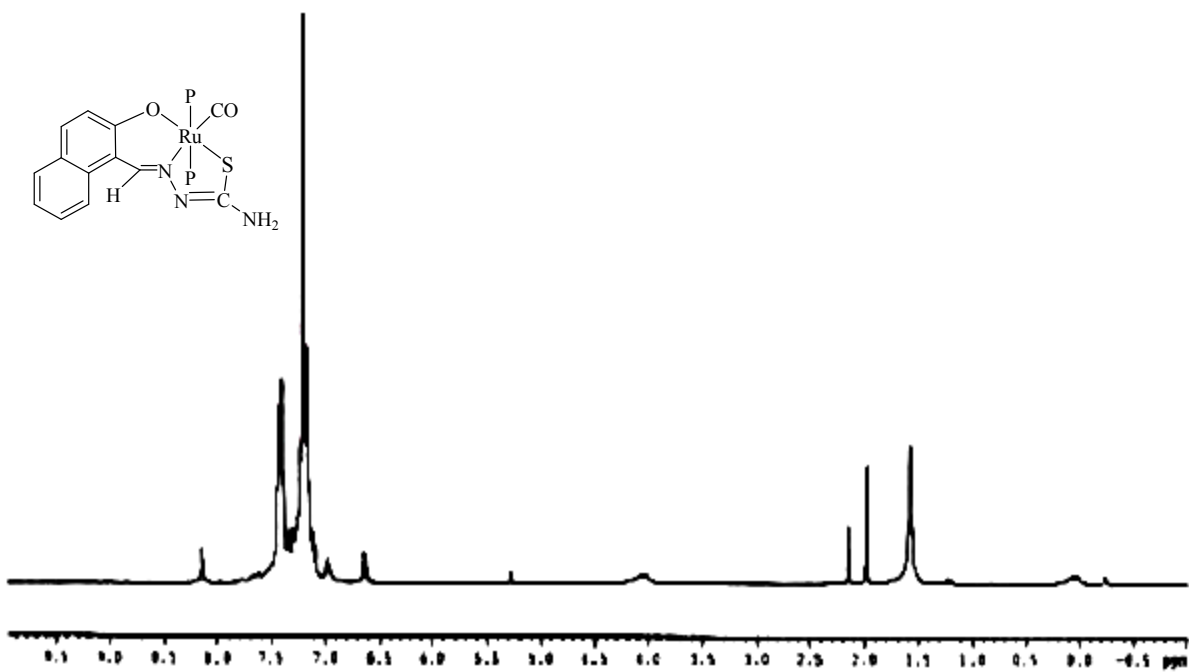


Fig. S3 <sup>1</sup>H-NMR spectrum of complex 2

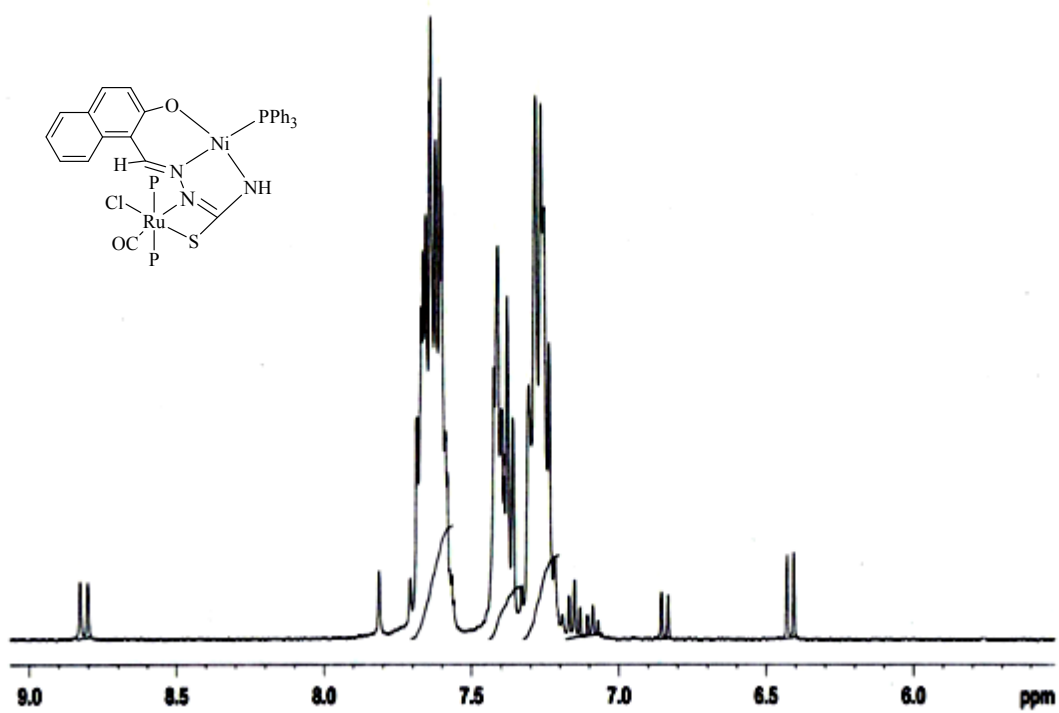


Fig. S4  $^1\text{H-NMR}$  spectrum of complex 3

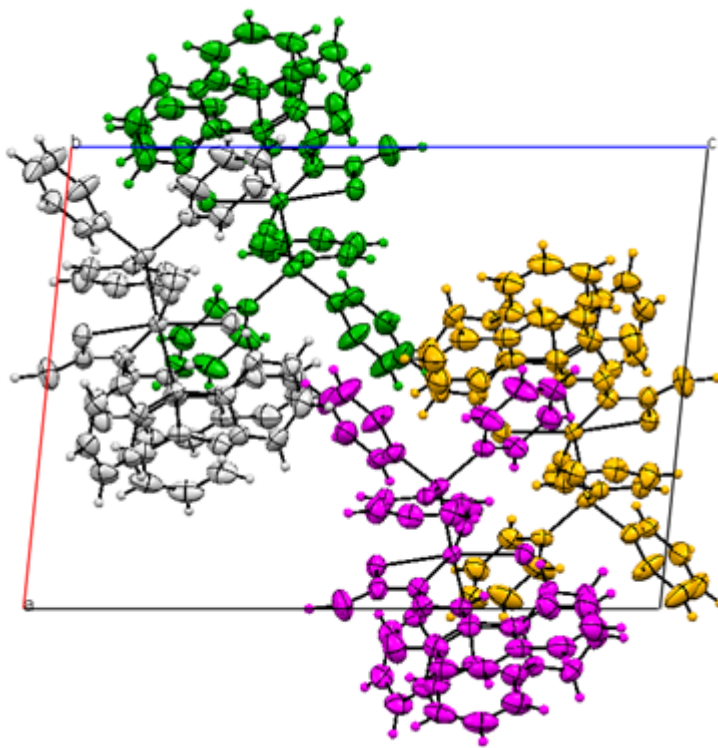


Fig. S5 Molecular packing diagram of 1a (view along the b axis)

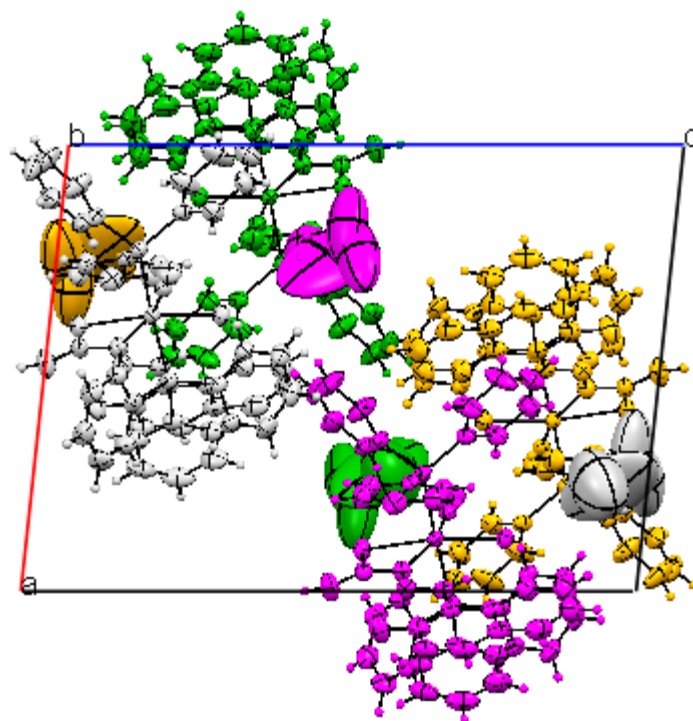


Fig. S6 Molecular packing diagram of 1b (view along the b axis)

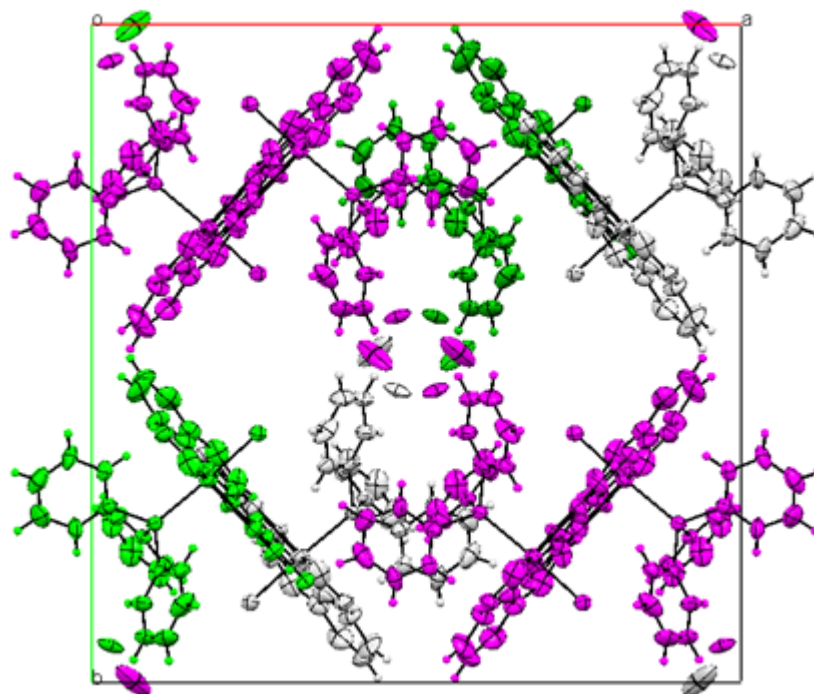


Fig. S7 molecular packing diagram of 3 (view along the c axis)

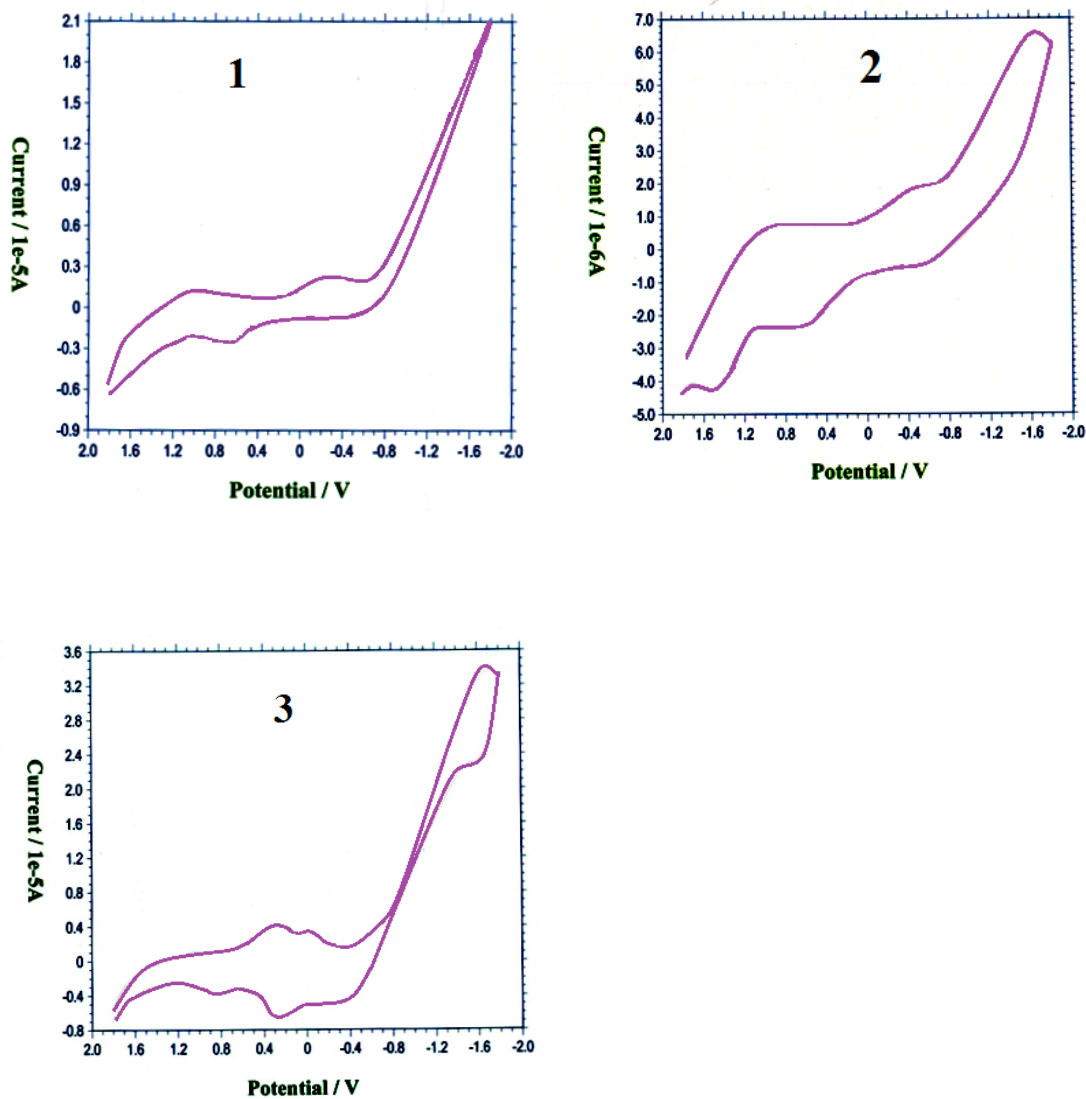


Figure S8. Cyclic voltammogram of the complexes 1-3

Table S1. Hydrogen bonds for 1a and 1b [ $\text{\AA}$  and  $^\circ$ ]

D-H...A	d(D-H)	d(H...A)	d(D...A)	$\angle$ (DHA)
O(2)-H(2)...N(1)	1.099	1.507	2.536	152.99
O(2)-H(2)...N(1)	0.957	1.657	2.546	152.85

Symmetry operation: (x, y, z)