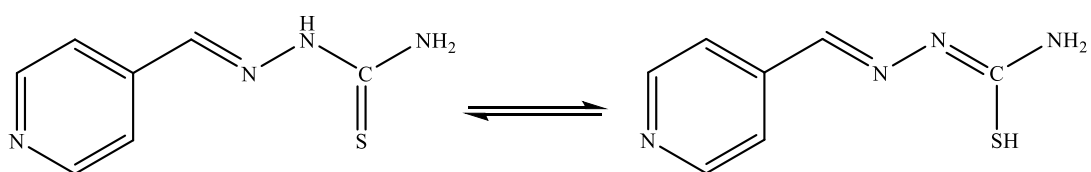
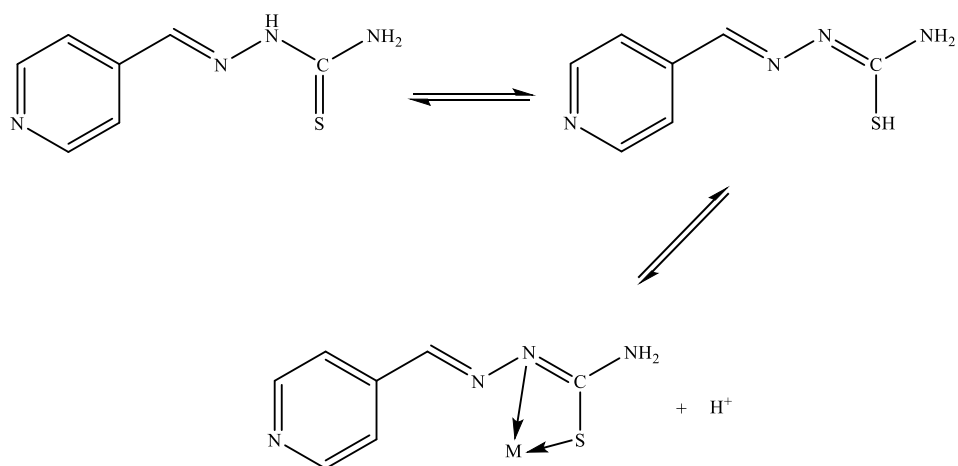


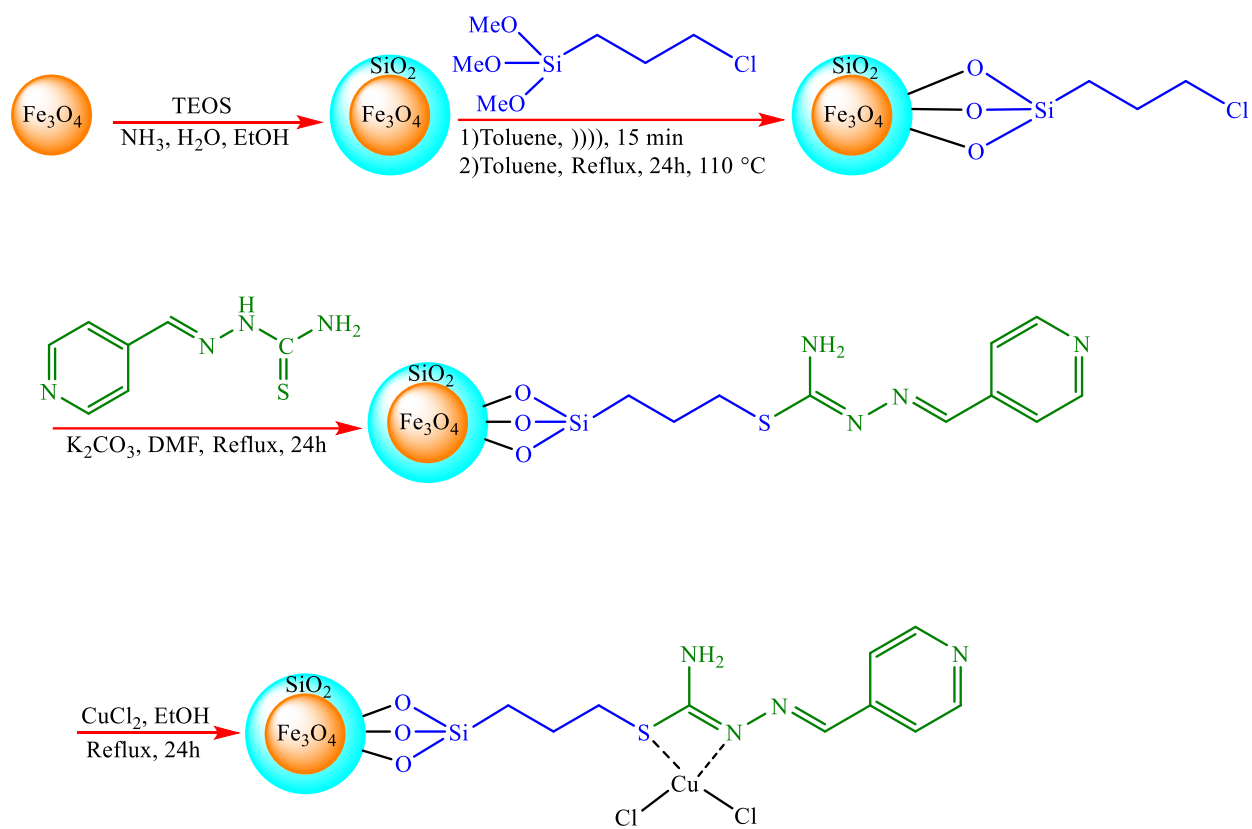
Scheme 1. Molecular structure of L ligand.



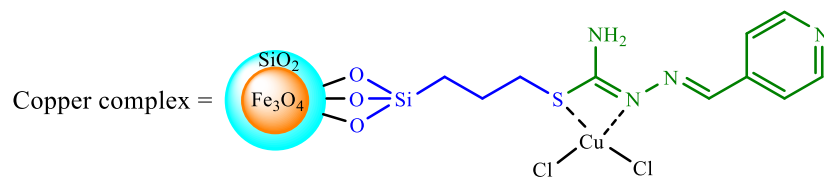
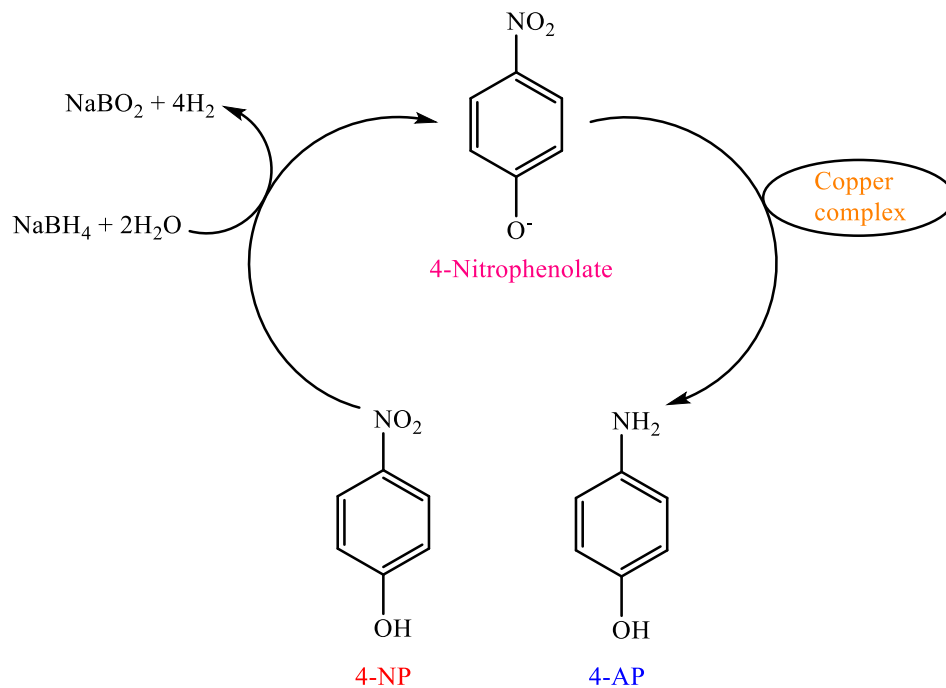
Scheme 2. Enol-ketone tautomerization of Schiff base L ligand.



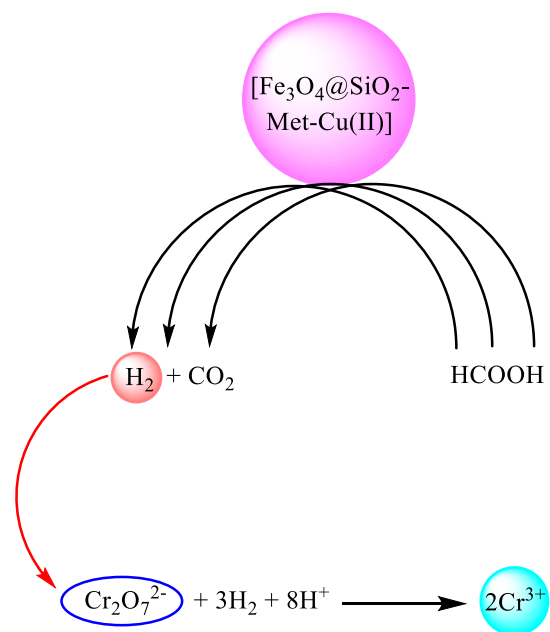
Scheme 3. The coordination of the L Schiff base ligand.



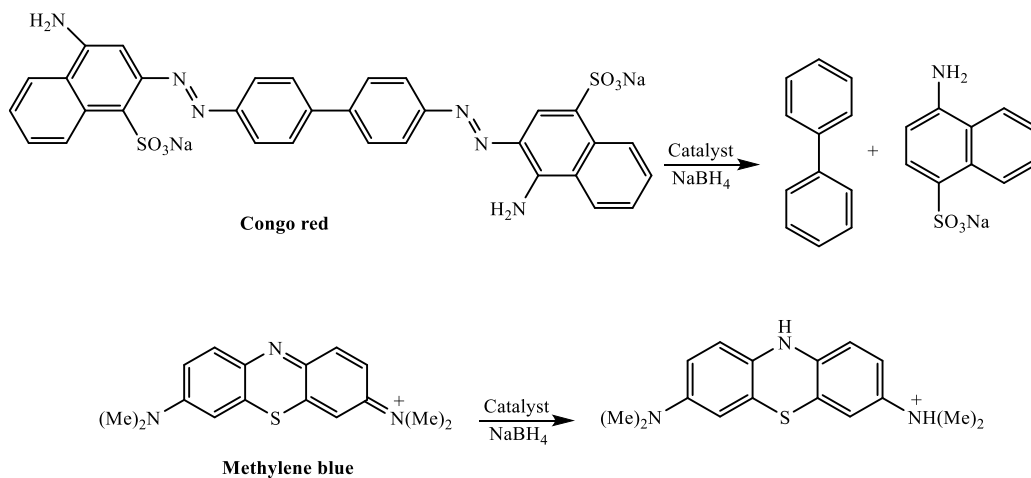
Scheme 4. Preparing the $[\text{Fe}_3\text{O}_4@\text{SiO}_2\text{-L-Cu(II)}]$.



Scheme 5. The 4-Nitrophenol reduction to 4-Aminophenol applying $[\text{Fe}_3\text{O}_4@\text{SiO}_2\text{-L-Cu(II)}]$.



Scheme 6. The schematic reduction of chromium(VI) to chromium(III) utilizing magnetic nanocatalyst



Scheme 7. The schematic degradation of Methylene Blue and Congo Red utilizing magnetic nanocatalyst