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# Synthesis and characterization of azo dyes ligand complexes with some metal ions.

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**Abstract** : Azo ligand 10-(2-methyl-5-oxo-1-phenyl-4,5-dihydro-1H-imidazol-4-ylazo)-6-oxo-5,6-dihydro-benzo[4,5] imidazo[1,2-c]quinazoline-9-carboxylic acid was prepared by combination the diazonium salt of amine with 2-methyl-3-phenyl-3,5-dihydro-imidazol-4-one. The structure of azo dye was identified on the basis of elemental analysis, FT-IR and UV-Vis spectroscopic methods. Transition metal complexes with azo dye have been synthesized and characterized by flame atomic absorption, elemental analysis, FT-IR and UV-Vis spectroscopic process as well as conductivity measurements. Analytical data revealed that all produce complexes exhibited 1:2 and 1:3 metal:ligand ratios due to octahedral geometry.

**Keywords** : spectral studies, azo dyes, biological activity, dyeing.

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