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Biological study of some first series transition metal complexes with adenine ligand

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Adenine complexes were prepared with some of the first series transition metals in a stoichiometric ratio of 1:2 (Mn⁺: L), where Mn⁺ = Mn²⁺, Fe³⁺, Co²⁺, Ni²⁺, Cu²⁺, Zn²⁺, and Cd²⁺ ions. The complexes were characterized by the physicochemical and spectroscopic techniques as electric conductivity, metal contents, IR, UV-visible, and molar conductance techniques. The stoichiometric ratios of the synthesized complexes were confirmed by using molar ratio method. The dissociation constant of adenine ligand was determined spectrophotometrically. Solvent effect on the electronic spectra of the adenine ligand was examined using solvents with different polarities. The biological activity of adenine ligand and its metal complexes were tested *in vitro* against some selected species of fungi and bacteria. The results showed a satisfactory spectrum against the tested organisms.

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