

Explain the experimental facts that cannot be explained by the simple model of Werner's theory

Like all the major theories, Werner's Theory was not free from limitations. The common limitations of the theory are:

It does not explain the colour, the magnetic and optical properties shown by coordination compounds. It could not explain the inability of all elements to form coordination compounds.

The Werner's theory could not explain the directional properties of bonds in various coordination compounds.

Crystal field theory is one of the simplest models for explaining the structures and properties of transition metal complexes. The theory is based on the electrostatics of the metal-ligand interaction, and so its results are only approximate in cases where the metal-ligand bond is substantially covalent. But because the model makes effective use of molecular symmetry, it can be surprisingly accurate in describing the magnetism, colors, structure, and relative stability of metal complexes.

More information on the web-site:

https://en.m.wikibooks.org/wiki/Introduction_to_Inorganic_Chemistry/Coordination_Chemistry_and_Crystal_Field_Theory

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