

INORGANIC CHEMISTRY (BS-ADP 5th Semester)

Module Code:	Chem-304
Module title:	Pi- Acceptor Ligands
Name of Scheme:	BS-ADP 5th Semester
Department:	School of Chemistry
Faculty:	Science
Module Type:	Compulsory
Module Rating:	2 credits

OBJECTIVES

This course will help in understanding basic principles of Pi-Acceptor Ligands, Chemical Bonding and Coordination Compounds. This will assist students in understanding the chemistry of Pi-Acceptor Ligands.

SYLLABUS OUTLINE:

1. Metal carbonyls:

Transition metal carbonyls (Mononuclear, Binuclear, Polynuclear), Effective atomic number rule or the 18 electron rule, Synthesis and bonding situation based on spectroscopic evidences; Theoretical rationalization of molecular structures, Synthesis. Characteristics and reactivity of derivatives of metal carbonyls (carbonylate anions, carbonyl hydrides and carbonyl halides).

2. Metal nitrosyls

Transition metal nitrosyls including halonitrosyl and their derivatives, chemistry of nitroso ferrous sulphate, sodium nitroprusside, Applications of carbonyls and nitrosyls in industry and synthetic chemistry.

RECOMMENDED BOOKS:

1. Inorganic Chemistry by James E. Huheey 1983 Harper International London.
2. Pi-Acceptor Ligands by Zafar Iqbal 1982 U.G.C. Islamabad.
3. Coordination Compounds by S.F.A. Kettle, 1971, Nelson, (Nairobi Kenya).
4. Haq Nawaz Bhatti and Rabia Rehman, "Advanced Inorganic Chemistry", Carvan Book House Lahore.