

INORGANIC CHEMISTRY (BS-ADP 6th Semester)

Module Code:	Chem-323
Module title:	f-block elements
Name of Scheme:	BS-ADP 6th Semester
Department:	School of Chemistry
Faculty:	Science
Module Type:	Compulsory
Module Rating:	2 credits

OBJECTIVES

This course will familiarize to students about lanthanides and actinides chemistry. The students will get knowledge about their discovery, extraction, separation, electronic configuration and their applications

SYLLABUS OUTLINE:

1. Chemistry of Lanthanides

Types and shapes of 'f'-orbitals, Nomenclature, Position in periodic table, occurrence, Separation, and electronic configuration, oxidation States, Ionic radius, Complex Formation, Comparison of Lanthanides and Actinides, applications of Lanthanides.(Nuclear and Non Nuclear).

2. Chemistry of Actinides

Nomenclature, Position in periodic table, occurrence, Separation, and electronic configuration, oxidation States, Ionic radius, Complex Formation, Synthesis of transuranic elements, extraction of Uranium and Thorium, applications of Actinides (Nuclear and Non Nuclear).

RECOMMENDED BOOKS:

1. Inorganic Chemistry by James E. Huheey 1983 Harper International London.
2. Advanced Inorganic Chemistry by F.A. Cotton and G. Wilkineon 1972, Interscience, Publishers, London.
3. Selected topics of Inorganic Chemistry by G.D Tuli.
4. Haq Nawaz Bhatti and Rabia Rehman, Advanced Inorganic Chemistry”, Carvan Book House Lahore.
5. J.D.Lee, Concise Inorganic Chemistry, 5th Edition.