

212001 – BIOINORGANIC

CREDITS: 04 (four) – 60 hours/class

CONTENT:

The use of metallic complexes in medicine. Use of coordination compounds in cancer chemotherapy, as antiparasitic agents and in the treatment of arthritis. New perspectives about the use of metallic complexes in medicine. Metal ions constituents of proteins, enzymes and others biomolecules.

SYLLABUS:

1. The use of possible metals in medicine.
2. Cancer ancillary compounds: structure, mechanism of action and effect of cisplatin, carboplatin and other compounds of platinum, ruthenium and rhodium.
3. Chain compounds used as antiparasitics: the structure and structure-activity of platinum, ruthenium and other metals complexes.
4. Coordination compounds used on arthritis treatment: auranofin and solganol, golden complexes.
5. Coordination compounds used in other medicine areas, for example imaging agents.
6. Perspectives on the use of metadicos in medicine.
7. Metal ions constituents of proteins, enzymes and other biomolecules: structures and function of the biomolecules metallic constituents.
8. Data methods on the structural structure of bioinorganic compounds.

BIBLIOGRAPHY:

1. FARREL, Nicholas. Transition metal complexes as drugs and chemotherapeutic agents. Kluwer Academic Publisher, England, 1989.
2. LIPPARD, Stephen J.; BERG, Jeremy M. Principles of bioinorganic chemistry. University Science Books, USA, 1994.