Materials of Conferences

RESEARCH OF DIMERIC COMLEXES OF PLATINUM(II) WITH AMINOASIDS

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After Rosenberg discovered cytostatic activity cys- $[Pt(NH_3)_2Cl_2]$ (cys-DDP) in 1965, a great interest to complex platinum and palladium compositions arose. Up to day, cys-DDP is one of antitumoral preparations that are used in medicine. However, a number of disadvantages of it, one of which is the medicine's high toxicity. Stimulates the search for new less toxic and more effective preparations based on platinum(II) and palladium(II) complexes. It seems perspective to use platinum and palladium complexes in combination with biological ligands, natural solutions that are present in human organism and involved in metabolism. An example of such ligands are amino-acids, components of

protein molecules. Because of the presence of two donor groups within an amino-acid, there is a possibility to synthesize dimeric platinum complexes, where bioligand will connect two central platinum atoms and be the bridge to connect them.

We have studied an interaction of cys-diamminodivalionoplatinum (II) with cys-diamminodiaquaplatinum(II) in order to obtain cys-tetraaminodivalinodiplatinum (II). This complex was synthesized and studied by us via methods of element analysis, cryoscopy, conductometry, IR- and UVstereoscopy, and NMR. It has been found that an amino-acid that is linked to two platinum atoms via aminogroup nitrogen atom and ionized carboxile group oxygen atom is the bridge to connect them.

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