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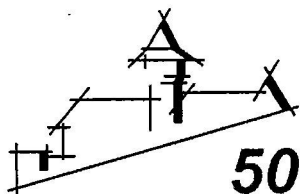
**XXV. INTERNATIONAL CONFERENCE
ON COORDINATION AND BIOINORGANIC CHEMISTRY**

**Advancing Coordination, Bioinorganic and Applied
Inorganic Chemistry**

The 50th Anniversary of ICCBIC

*May 31 – June 5, 2015
Smolenice, Slovakia*

BOOK OF ABSTRACTS



PROGRAM

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14.30 – 17.30	Young Session
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**Complexes of Rh(III)(η^5 -Cp⁺) with (N,O)- and (N,N)-donor bidentate ligands:
Solution equilibrium and interaction with human serum albumin**

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Recently, the interest in metal based anticancer research shows a pronounced shift towards compounds possessing mode of actions different from Pt based compounds. Complexes of the neighbouring transition metals such as Ru, Os, Ir and Rh can be attractive alternatives, since intra- or extracellular proteins are their presumed biological targets besides DNA. Simple Rh(III) salts showed antitumor activity, but their kinetic inertness and tendency to hydrolyze hindered their further application. Rh(III)(η^5 -arenyl) complexes can overcome these disadvantages. Here we present the solution equilibrium aspects of complexes formed between [Rh(III)(η^5 -Cp⁺)]²⁺ fragment and (N,O)-donor (picolinic acid, (iso)quinaldic acid, 6-methylpicolinic acid) or (N,N)-donor (2,2'-bipyridine, ethylenediammine) ligands in pure aqueous solution. Complexation processes were studied by pH-potentiometry, UV-Vis and ¹H NMR spectroscopy. Our investigations are also focused on the interaction of these Rh(III) complexes with human serum albumin to reveal their distribution in blood serum studied by means of ¹H NMR spectroscopy, ultrafiltration and spectrofluorometry.

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