Aqua Group Acidity in Complexes of the Type *trans*-$[Pt(NH_3)_2(L)(H_2O)]^{2+}$ (with L = Substituted Pyridines). Linear, yet Weak Dependence of pK_a of the Aqua Ligand from L Basicity

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The pK_a of the aqua ligand in complexes of the type *trans*-$[Pt(NH_3)_2(L)(H_2O)]^{n+}$ depends on the nature of the ligand *trans* to H_2O, as expected. With L = NH_3 or NH_2R and n = 2, the pK_a is around 6.0 – 6.4. With L = *N*-heterocyclic ligands generally higher acidities of the aqua ligands are observed, with pK_a values being in the range of 4.7 – 5.4. These values are between those for L = H_2O, n = 2 (4.4) and L = Cl^-, n = 1 (5.7). For differently substituted pyridine ligands L a linear relationship exists between the pK_a of the H_2O ligand and the basicity of the heterocyclic ligand L, which is relatively weak, however.

Key words: Transplatin, Pyridine Ligands, Aqua Ligand Acidity, *trans* Influence