

Abstract

The aim of this work was to synthesize and study acid–base and coordination properties of ligands bearing a neutral or negative charge on their pendant arms. Acid–base properties of two ligands and thermodynamic stability of their complexes with gallium, copper, and zinc ions were studied using potentiometry, UV–Vis and NMR. Solid state structure of one of the ligands and its complex with copper ion was studied using RTG structural analysis. Structure of complexes in solution was studied using methods of computational chemistry.