

Abstract

The aim of this thesis was to prepare monoamide of macrocycle NOTA, which was successfully prepared and fully characterized. Acid-base properties were investigated by potentiometric titration and four protonation constants were found, which are lower than pK_a 's of NOTA ligand. Coordination properties with selected ions from the first row of transition metals were investigated. Stability constants of studied complexes are also lower than the same complexes with NOTA ligand.

Key words: macrocyclic complexes, positron emission tomography, thermodynamic stability, formation kinetic, radiopharmaceuticals