

Abstract

The aim of this work is preparation and characterization of a ligand for a selective complexation of gallium (III). The ligand is a derivative of macrocycle NOTA with bis(phosphinic) pendant arm. Protonation constants and stability constants with copper (II), nickel (II), zinc (II) and gallium (III) cations were determined by potentiometric titrations. The ligand was also used for studying complexation kinetics with gallium (III) ions and might serve as a potential contrast agent for ^{68}Ga -PET.