

Abstract

The most widely used emitter in positron emission tomography is the fluorine isotope ^{18}F , which can bind to a number of atoms, and thus allows the formation of imaging agents for positron emission tomography. This work will summarize methods for labeling complexes containing aluminum or gallium as a central cation, which can serve as stable carriers of the positron emitter in a human body. Both of these elements have unique physical and chemical properties suitable for molecular imaging. Therefore the development of complex labeling, their structure, coordination environment and some applications in nuclear medicine will be described here.