

Public Abstract

First Name:Peter

Middle Name:

Last Name:Chen

Adviser's First Name:Susan Z.

Adviser's Last Name:Lever

Co-Adviser's First Name:

Co-Adviser's Last Name:

Graduation Term:FS 2009

Department:Chemistry

Degree:MS

Title:SYNTHESIS OF RHENIUM COMPLEXES AS MODELS FOR NEW SIGMA RECEPTOR IMAGING AGENTS

The sigma receptor has been biologically found to play roles in central nervous system (CNS) disorders and cancer cell proliferation. Lead sigma receptor binding ligands have been identified. Tc-99m is routinely used in nuclear medicine and new sigma receptor imaging agents were designed to include Tc-99m. Since Tc-99m cannot be handled under normal laboratory conditions, rhenium was used. Rhenium complexes has been found to be excellent models of their Tc-99m counterparts and hence provide a good model for the target Tc-99m imaging agents. The current study successfully synthesized the rhenium complexes toward the goal of developing new imaging agents for the sigma receptor.