Abstract

This master thesis is dedicated to the preparation of fluorinated derivatives of carbocyclic nucleosides, that may serve as flaviviral replication inhibitors. Preparation of both monofluorinated as well as *gem*-difluorinated analogs of *ribo* and 2′-deoxyribonucleoside was attempted. While a suitable and reliable route for the preparation of monofluorinated compounds way found, synthesis of *gem*-difluorinated turned out to be rather challenging. Although most of the presented work dealt with compounds bearing adenine as a nucleobase, the universal applicability of the developed procedures, demonstrated on the preparation of a guanosine-type molecule, suggests that after slight optimization larger series of this type of compounds could be prepared.