Synopsis of the thesis

## **CHAPTER 1**

## Synthesis of Deoxyaminosugars from Vinyl Sulfone-Modified Carbohydrates

Section 1A: Synthesis of 2-amino-2,3-dideoxypentofuranosides and 2-amino-2,3-dideoxyhexofuranosides from vinyl sulfone-modified pent-2-enoand hex-2-enofuranosides

Section 1B: A diastereoselective and general route to 5-amino-5-deoxysugars from hex-5-enofuranosides

## **CHAPTER 2**

## Branched-Chain and Cyclopropanated Sugars from Vinyl Sulfone-Modified Carbohydrates

Section 2A: Diastereoselective C-C bond formation at C-5 of vinyl sulfone-modified hex-5-enofuranosides

Section 2B: A diastereoselective and general route to cyclopropanated carbohydrates from vinyl sulfone-modified pent-2-enofuranosides