

## Abstract

This thesis titled 'isolation and structure-elucidation of secondary metabolites from endophytic fungi and experiments on the synthesis of Pseudoanguilosporin A' contains the description of the isolation and structure-elucidation of 31 substances from nine endophytic fungi. Of this 31 substances 14 proved to be previously unknown. The relative configuration from 11 of the unknown substances could be determined. Likewise of 6 of these substances the absolute configuration followed from comparison with known substances or from calculation of the cd-spectra. The synthetic part contains the work on the synthesis of Pseudoanguilosporin A, which was previously isolated and proved to be bioactive. The substitution pattern of the aromatic ring of the Pseudoanguilosporin A could be synthesized by Diels-Alder-Reaction between a ketene acetal and an allene. But the construction of the nonaromatic ring failed.