

Isolation, structure elucidation and synthesis of biological active secondary metabolites from micromycetes of the class fungi imperfecti

Within the scope of the BMBF/BASF-project " Isolation of natural products" micromycetes has been analysed as a source of secondary metabolites. The secondary metabolites are isolated by different chromatographic methods, like MPLC and HPLC.

For the structure elucidation UV-, FT-IR-spectroscopy and massspectrometry as well as NMR spectroscopy was used. The most interesting result was a metabolite with a oxaadamantane structure, up to now complete unknown for fungal metabolites.

Another isolated natural product was the Elsinochrome A. By now, no total synthesis of this metabolite existed. Therefore a new pathway to this molecule was tried out. The starting molecule should be the monomer of the elsinochrom. It should be built up by a copper catalysed Michael reaction of a Grignard reagent with 6-methylpyran-2-one.