

## Abstract

Essential oils are volatile compounds from plants with a wide range of effects. Many of them exhibit antifungal activity. As the resistance of pathogenic fungi to antimycotics is increasing, finding new antifungal agents for the treatment of fungal infections is highly desirable. In order to use essential oils for the production of new drugs, it is necessary to know the exact mechanism of their action. Although it is known a lot about the effects of essential oils on fungi, the particular target in a cell is not always described. In this thesis I summarize the present knowledge about the mechanisms of actions on fungi. I gradually deal with effects of essential oils on cell wall, plasma membrane, mitochondrion, nucleus, quorum sensing, virulence factors, mycotoxin production and fungal development. Generally essential oils do not act on one structure but affect multiple structures and processes at the same time. In the last chapter I mention possible directions for further research of these substances.

**Key words:** essential oils, fungi, antifungal activity, mechanism of action, mode of action