Microbial Transformation of (−)-Carvone

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The cyclic monoterpene ketone (−)-carvone was metabolized by the plant pathogenic fungus Absidia glauca. After 4 days of incubation, the diol 10-hydroxy-(+)-neodihydrocarveol was formed. The absolute configuration and structure of the crystalline substance was identified by means of X-ray diffraction and by spectroscopic techniques (MS, IR and NMR). The antimicrobial activity of the substrate and metabolite was assayed with human pathogenic microorganisms.

Key words: (−)-Carvone, Microbial Transformation, Antimicrobial Activity