The Microbial Oxidation of (−)-β-Pinene by Botrytis cinerea

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Z. Naturforsch. 57c, 686–690 (2002); received March 19, 2002

Microbial Transformation, (−)-β-Pinene, Botrytis cinerea

(−)-β-pinene, a flavor and fragrance monoterpene is an important constituent of essential oils of many aromatic plants. It was oxidized by a plant-pathogenic fungus, Botrytis cinerea to afford four metabolites characterized as (−)-6α-hydroxy-β-pinene, (−)-4β,5β-dihydroxy-β-pinene, (−)-2β,3β-dihydroxypinane, and (−)-4β-hydroxy-β-pinene-6-one by detailed spectroscopic studies along with other known metabolites.