

The invention can be used for the preparation of optically active organic substances used as additives to liquid-crystal materials, physiologically active compounds, as well as preproducts of organic synthesis, in particular at preparation of (-)-2-arylidene-4-bromo-n-menthene-3-ones. A process for the preparation of (-)-2-arylidene-4-bromo-n-terpane-3-ones involves interaction of initial (-)-2-arylidene-n-terpane-3-one with N-bromosuccinimide in the inert solvent in the presence of catalyst followed by isolation of the desired product. The reaction is carried out in the presence of catalytic amounts of HClO_4 and H_2SO_4 at temperature of 20 - 45°C up to termination of the reaction.