

Process for the polymerization of cyclic olefins and a photopolymerizable composition

Abstract

Process for the photocatalytic polymerization of a cyclic olefin or at least two different cyclic olefins in the presence of a metal compound as catalyst, which comprises carrying out a photochemical ring-opening metathesis polymerization in the presence of a catalytic amount of at least one heat-stable niobium(V) or tantalum(V) compound which contains at least two methyl groups or two monosubstituted methyl groups bound to the metal, the substituent containing no hydrogen atom in the α -position.

The process can also be carried out by first performing the irradiation and completing the polymerization by heating. The process is suitable, for example, for the preparation of thermoplastic moulding materials, coatings and relief images.