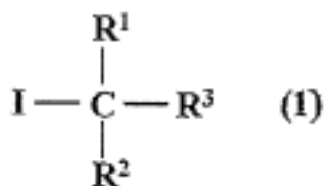


MOLECULAR WEIGHT CONTROLLING AGENT FOR RADICAL
POLYMERIZATION, METHOD FOR PRODUCING POLYMER USING SAME,
AND POLYMER

ABSTRACT OF THE DISCLOSURE

The purpose of the present invention is to provide: a molecular-weight controlling agent for radical polymerization which enables controlled radical polymerization of a water-soluble monomer in an aqueous medium; a method for producing a polymer of a water-soluble vinyl monomer using the same; and a water-soluble vinyl monomer polymer. The present invention provides a molecular-weight controlling agent for radical polymerization characterized in that the agent comprises, as its active ingredient, an iodine compound represented by formula (1) and in that the solubility of the active ingredient in water is 0.5 weight % or more at 20 °C.



In the formula, R¹ is -COOX, -CONR⁴R⁵, an aromatic group or a cyano group, X is a hydrogen atom, an aliphatic group, an alkali metal, an alkaline earth metal, an organic ammonium or an ammonium, and R², R³, R⁴ and R⁵ are each independently a hydrogen atom, an aromatic group or an aliphatic group.

FIG 1