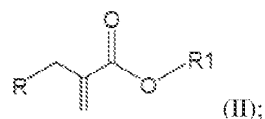


Claims:

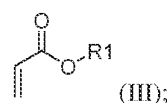
1. A process for preparing an olefin-acrylate diblock copolymer, the process comprising:
 - a) performing nitroxide-mediated polymerization (NMP) by combining NMP materials comprising an acrylate monomer and a nitroxide initiator, thereby forming a nitroxide macroinitiator; and
 - b) combining end-capping-reaction materials comprising the alpha-substituted acrylate and the nitroxide macroinitiator, thereby forming the olefin-acrylate diblock copolymer.

2. The process of claim 1, wherein:

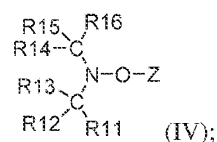
the alpha-substituted acrylate has the formula (II):



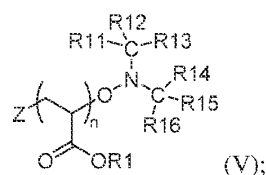
the acrylate monomer has the formula (III):



the nitroxide initiator has the formula (IV):



the nitroxide macroinitiator has the formula (V):



the olefin-acrylate diblock copolymer has the formula (VI):



each R1 independently is a C1-C30 hydrocarbyl group;

each R independently is a C1-C26 hydrocarbyl group or a polyolefinyl group;

each Z independently represents a group having at least one carbon atom and is such that the free radical Z $\cdot$ derived from Z is capable of initiating polymerization of the acrylate monomer of the formula (III) by free radical polymerization and the radical functionality resides in a carbon atom;

each R16, R15, R12, and R11 represent the same or different straight chain or branched substituted or unsubstituted alkyl groups of a chain length sufficient to provide steric hindrance and weakening of the O—Z bond of the compound of the formula (IV);

each R14 and R13 represent the same or different straight chain or branched substituted alkyl groups or R14CNCR13 may be part of a cyclic structure which may have fused with it another saturated or aromatic ring, the cyclic structure or aromatic ring being optionally substituted; and

n is from 2 to 500.

3. The process of claim 1 or 2, wherein each R independently is a C1-C26 hydrocarbyl group.
4. The process of claim 1 or 2, wherein each R independently is a polyolefinyl group.
5. The process of claim 4, wherein the polyolefinyl group is an ethylene-based polymeryl group.
6. The process of claim 4, wherein the polyolefinyl group is a propylene-based polymeryl group.
7. The process of any of claims 4-6, wherein the polyolefinyl group can be defined by properties of R-H, and wherein R-H has a number average molecular weight of greater than 365 g/mol.
8. The process of any of the previous embodiments, wherein each of steps a) and b) is performed at a temperature from 100°C to 150°C.