Title (en)

ACYLATION AND SULFONATION OF SILYLKETENE ACETALS.

Title (de)

ACYLIERUNG UND SULFONIERUNG VON SILYLKETEN-ACETALEN.

Title (fr)

ACYLATION ET SULFONATION D'ACETALES DE SILYLCETENE.

Publication

EP 0272285 A4 19900410 (EN)

Application

EP 87903641 A 19870521

Priority

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- US 4895887 A 19870519
- US 86808386 A 19860529

Abstract (en)

[origin: WO8707265A1] Process for the preparation of beta-ketoesters or beta-sulfonylesters wherein silylketene acetals, including "living" (meth)acrylic polymers prepared by Group Transfer Polymerization (GTP), are reacted with an acyl compound, such as diphenyl terephthalate, or a sulfonyl compound such as benzene bis-sulfonyl fluoride, in the presence of a GTP-effective (oxy)anion catalyst such as bifluoride or m-chlorobenzoate. The keto- or sulfonylester products include capped "living" polymers, telechelic polymers, such as alpha, omega-dihydroxy polymethyl (meth)acrylate, chain-extended polymers, and branched or block copolymers. Telechelic polymers are useful for preparing cross-linked or block polymers by reaction of the functional end groups. AB block polymers, for example from methyl methacrylate and n-butyl acrylate, can also be prepared by coupling different polymeric silylketene acetals prepared by GTP with a diacyl compound such as diphenyl terephthalate. ABA block copolymers can be prepared by first preparing an AB block polymeric silylketene acetal by GTP, then coupling with a diacyl compound as just described. Especially useful ABA block copolymers have end segments (A) which are oxirane-containing (meth)acrylic moieties such as glycidyl methacrylate, separated by a central segment (B) which is a (meth)acrylic moiety without oxirane groups, such as methyl methacrylate. AB block copolymers containing hard and soft segments provide tough, flexible materials for adhesives and coatings. An ABA block copolymer having epoxy groups at the ends of the polymer chain provides enhanced toughness, and the triblock structure imparts improved outdoor durability in the use of these polymers as surface coatings, adhesives, castings, laminates and encapsulants for electronic parts.

IPC 1-7

C07C 69/716; C07C 69/738; C07C 147/02; C07C 147/06; C08G 2/24; C08G 2/38

IPC 8 full level

C07C 69/738 (2006.01); **C07C 67/00** (2006.01); **C07C 69/716** (2006.01); **C07C 313/00** (2006.01); **C07F 7/00** (2006.01); **C08F 293/00** (2006.01); **C08F 297/02** (2006.01)

IPC 8 main group level

C08F (2006.01)

CPC (source: EP)

C08F 293/005 (2013.01)

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- No further relevant documents have been disclosed.
- See references of WO 8707265A1

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