

Title (en)  
METHOD OF PRODUCING CARBON MONOXIDE COPOLYMERS IN AN AQUEOUS MEDIUM USING WATER-SOLUBLE METAL COMPLEXES AND SOLUBILIZERS

Title (de)  
VERFAHREN ZUR HERSTELLUNG VON KOHLENMONOXIDCOPOLYMEREN IN WÄSSRIGEM MEDIUM UNTER VERWENDUNG WASSERLÖSLICHER METALLKOMPLEXE UND LÖSUNGSVERMITTLERN

Title (fr)  
PROCEDE DE PREPARATION DE COPOLYMERES DE MONOXYDE DE CARBONE DANS UN MILIEU AQUEUX A L'AIDE DE COMPLEXES METALLIQUES ET D'AGENTS DE SOLUBILISATION HYDROSOLUBLES

Publication  
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Application  
**EP 00917073 A 20000411**

Priority  
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Abstract (en)  
[origin: DE19917920A1] A process for the production of linear alternating copolymers of carbon monoxide and an olefin comprises copolymerization using a metal complex, a dissolution aid and a hydroxy compound. A process for the production of linear alternating copolymers of carbon monoxide and at least one 3-20 C olefinically unsaturated compound comprises copolymerization in the presence of (A1) a metal complex of formula (1), (B) a dissolution aid and (C) a hydroxy compound. G = 5-7 membered carbocyclic ring, optionally containing heteroatoms,  $-(CRb_2)r<->$ ,  $(CRb_2)s-Si(Ra)_2-(CRb_2)t-$ ,  $-A-O-B$  or  $-A-Z(R<5>)-B$ ;  $R<5> = H$ , a functional group containing atoms of Group IVA, VA, VIA or VIIA, substituted 1-28C alkyl, 3-14C cycloalkyl, 6-15C aryl, or an alkyl aryl with 1-20C alkyl and 6-15C aryl,  $N(Rb)_2$ ,  $-Si(Rc)_3$  or formula (2);  $q = 0-20$ ; A, B =  $-(CRb_2)r'$ ,  $-(CRb_2)s-Si(Ra)_2-(CRb_2)t-$ ,  $-N(Rb)-$ , a corresponding ring system or together with Z forms a heterocycle; Ra = 1-20C alkyl, 3-10C cycloalkyl, 6-15C aryl or an alkylaryl having 1-10C alkyl and 6-15C aryl, optionally substituted; Rb = as Ra, H or  $Si(Rc)_3$ ; Rc = 1-20C alkyl, 3-10C cycloalkyl, 6-15C aryl or an alkylaryl having 1-10C alkyl and 6-15C aryl, optionally substituted  $r = 1-4$ ;  $r' = 1$  or 2; s, t = 0-2;  $s+t = 1-3$ ; Z,  $E<1>$ ,  $E<2> =$  Group VA element; M = Group VIII B, IB or IIB element;  $R<1>-R<4> = 2-28C$  alkyl, 3-14C cycloalkyl, 6-15C aryl or an alkylaryl having 1-28C alkyl and 6-15C aryl, provided at least one of  $R<1>-R<4>$  contains an OH, amine, or ionic group;  $L<1>$ ,  $L<2> =$  charged or neutral ligand; X = mono- or multivalent anion; p, m, n = 0-4; and  $p = m \cdot n$ . An Independent claim is also included for a process for the production of the copolymer in the presence of (A1.1) a metal M in salt or complex salt form (A1.2) a chelate ligand of formula (3), (B) a dissolution aid and (C) a hydroxy compound.  $(R<1>)(R<2>)E<1>-G-E<2>(R<3>)(R<3>)(R<4>)$  (3)

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