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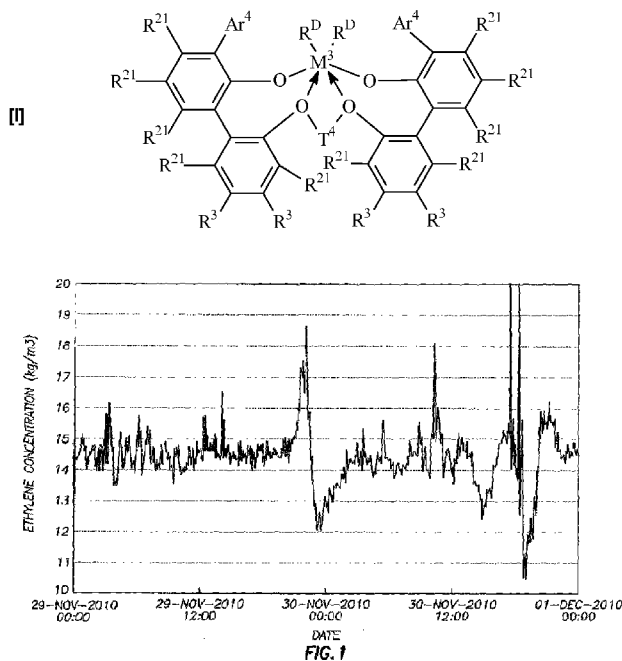
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(54) Title: POLYOLEFIN POLYMERIZATION PROCESS, SEMI-CRYSTALLINE ETHYLENE-BASED POLYMER MADE THEREFROM, AND ARTICLES MADE FROM THE POLYMER

(57) Abstract: A polymerization process comprising (A) polymerizing ethylene and optionally one or more α -olefins in the presence of a catalyst to form a semi-crystalline ethylene-based polymer in at least one reactor; the catalyst comprising an organometallic catalyst thereby forming an ethylene-based polymer composition in the at least one reactor, wherein the catalyst is a metal complex of a polyvalent aryloxyether corresponding to the formula: [Formula I] where M^3 is Ti, Hf or Zr, preferably Zr; Ar^4 is independently in each occurrence a substituted C_{9-20} aryl group, wherein the substituents, independently in each occurrence, are selected from the group consisting of alkyl; cycloalkyl; and aryl groups; and halo-, trihydrocarbysilyl- and halohydrocarbyl- substituted derivatives thereof, with the proviso that at least one substituent lacks co-planarity with the aryl group to which it is attached; T^4 is independently in each occurrence a C_{2-20} alkylene, cycloalkylene or cycloalkenylene group, or an inertly substituted derivative thereof; R^{21} is independently in each occurrence hydrogen, halo, hydrocarbyl, trihydrocarbysilyl, trihydrocarbysilylhydrocarbyl, alkoxy or di(hydrocarbyl)amino group of up to 50 atoms not counting hydrogen; R^3 is independently in each occurrence hydrogen, halo, hydrocarbyl, trihydrocarbysilyl, trihydrocarbysilylhydrocarbyl, alkoxy or amino group of up to 50 atoms not counting hydrogen, or two R^3 groups on the same arylene ring together or an R^3 and an

R^{21} group on the same or different arylene ring together form a divalent ligand group attached to the arylene group in two positions or join two different arylene rings together; and R^D is independently in each occurrence halo or a hydrocarbyl or trihydrocarbysilyl group of up to 20 atoms not counting hydrogen, or 2 R^D groups together are a hydrocarbylene, hydrocarbadiyl, diene, or poly(hydrocarbyl)silylene group; wherein step (A) is conducted in the presence of from 5 to 20 mmol/ m^3 triethylaluminum; and wherein step (A) is conducted in the presence of one or both of the following conditions: (i) from greater than 0:1 to 65:1 molar ratio of triethylaluminum to the catalyst; and (ii) from 0.1:0 to 5:1 molar ratio of triethylaluminum to modified methylalumoxane is provided.