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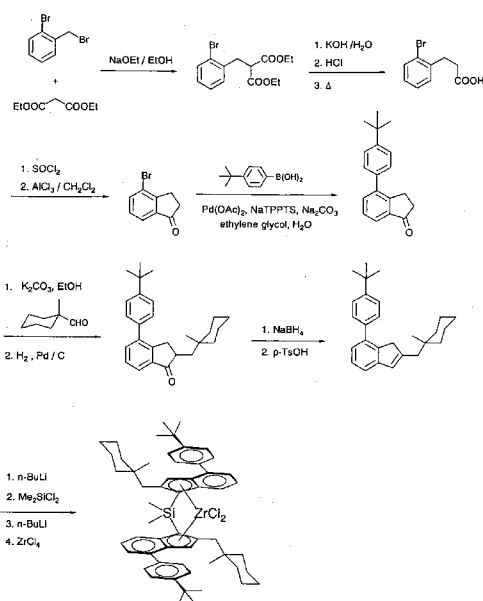
(54) Title: NEW METALLOCENE COMPOUNDS, CATALYSTS COMPRISING THEM, PROCESS FOR PRODUCING AN
OLEFIN POLYMER BY USE OF THE CATALYSTS, AND OLEFIN HOMO- AND COPOLYMERS

Fig. 1

(57) Abstract: Certain metallocene compounds are provided that, when
used as a component in a supported polymerization catalyst under indus-
trially relevant polymerization conditions, afford high molar mass homo
polymers or copolymers like polypropylene or propylene/ethylene copoly-
mers without the need for any α -branched substituent in either of the two
available 2- positions of the indenyl ligands. The substituent in the 2-posi-
tion of one indenyl ligand can be any radical comprising hydrogen,
methyl, or any other C₂-C₄₀ hydrocarbon which is not branched in the α -
position, and the substituent in the 2-position of the other indenyl ligand
can be any C₅-C₄₀ hydrocarbon radical with the proviso that this hydrocar-
bon radical is branched in the β -position and that the β -carbon atom is a
quaternary carbon atom and part of a mono-cyclic hydrocarbon system.
This metallocene topology affords high melting point, very high molar
mass homo polypropylene and very high molar mass propylene-based
copolymers. Furthermore, the activity/productivity levels of catalysts com-
prising the metallocenes of the present invention are exceptionally high.