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Datasheet for the decision of 17 October 2007

Case Number: T 1103/05 - 3.3.03

Application Number: 93306210.1

Publication Number: 0582480

IPC: C08F 4/602

Language of the proceedings: EN

Title of invention:
Olefin polymerization catalyst and method for the polymerization of olefin using said polymerization catalyst

Patentee:
Mitsui Chemicals, Inc.

Opponent:
Basell Polyolefine GmbH

Headword:
-

Relevant legal provisions:
EPC Art. 54(1)(2), 54(3)(4), 111(1)

Keyword:
"Novelty - main request (yes)"
"Remittal"

Decisions cited:
T 0205/83, T 0572/88, T 0355/99

Catchword:
-

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Case Number: T 1103/05 - 3.3.03

D E C I S I O N
of the Technical Board of Appeal 3.3.03
of 17 October 2007

Appellant: (Patent Proprietor)
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Decision under appeal:
Decision of the Opposition Division of the European Patent Office dated 26 April 2005 and posted 7 July 2005 revoking European patent No. 0582480 pursuant to Article 102(1) EPC.

Composition of the Board:

Chairman: R. Young
Members: C. Idez
C. Heath

Summary of Facts and Submissions

I. The grant of the European patent No. 0 582 480 in the name of Mitsui Chemicals, Inc. in respect of European patent application No. 93 306 210.1 filed on 5 August 1993 and claiming Japanese priorities of 6 August 1992 (JP 21040892) and of 17 June 1993 (JP 17125693) was announced on 14 November 2001 (Bulletin 2001/46) on the basis of 5 claims.

Claims 1 to 5 read as follows:

"1. A solid olefin polymerization catalyst comprising
(A) an organoaluminum oxy-compound,
(B) a group IVB transition metal compound containing a ligand or ligands having a cyclopentadienyl structure,
(C) a hydrogenated organoaluminum compound, and
(D) a particulate silica,
wherein the catalyst is obtainable by bringing (D) into contact with (A) and then bringing the resulting product into contact with (B) and (C), in either order.

2. A catalyst comprising
(I) a solid catalyst as claimed in claim 1, and
(II) (E) an organoaluminum compound.

3. A catalyst according to claim 1 which additionally comprises prepolymerized olefin.

4. A catalyst comprising
(I) a catalyst comprising prepolymerized olefin as claimed in claim 3, and
(II) (E) an organoaluminum compound.

5. A method for polymerizing or copolymerizing olefin, which comprises polymerizing or copolymerizing olefin in the presence of a catalyst as claimed in any one of the preceding claims."

II. Notice of Opposition against the patent was filed by Basell Polyolefine GmbH (Opponent) on 14 August 2002.

The Opponent requested the revocation of the patent in its entirety on the grounds of lack of novelty and lack of inventive step (Article 100(a) EPC).

The opposition was supported *inter alia* by the following documents:

Dl: EP-A-0 287 666;
D2: EP-A-0 442 725; and
D3: EP-A-0 516 458.

III. By a decision of the Opposition Division announced orally on 26 April 2005 and issued in writing on 7 July 2005, the Opposition Division revoked the patent.
The decision of the Opposition Division was based on granted Claims 1 to 5 as main request, on auxiliary requests 1 to 3 as submitted with letter of 4 February 2005, and on auxiliary request 4 as submitted at the oral proceedings of 24 April 2005.

According to the decision, the subject-matter of Claims 1, 3 and 5 of the main request lacked novelty over documents D2 and D3, auxiliary requests 1 and 3 were not allowable under Rule 57(a) EPC, and auxiliary requests 2 and 4 infringed Article 123(2) EPC.

IV. A Notice of Appeal was filed on 11 August 2005 by the Appellant (Patent Proprietor) with simultaneous payment of the prescribed fee.

With the Statement of Grounds of Appeal filed on 15 November 2005, the Appellant submitted two auxiliary requests.

It also argued essentially as follows:

(i) Concerning novelty of the subject-matter of the Claims 1, 3 and 5 as granted:

(i.1) It was accepted that D2 and D3 both referred to hydrogenated organoaluminum compounds (cf. D2, page 3, line 58 and page 5, line 58; cf. D3, page 5, line 50 and page 11, line 48).

(i.2) According to the Opponent the hydrogenated organoaluminum compounds in D2 and D3 were each disclosed as alternatives to trialkyl aluminum compounds.

(i.3) Since examples of D2 and examples of D3 used triisobutylaluminum components, and since hydrogenated organoaluminum compounds were alternatives thereof, the Opponent had considered that D2 and D3 each therefore disclosed the use of hydrogenated organoaluminum in

combination with all the other features of these examples.

(i.4) This analysis was, however, not correct, because in order to arrive from the Examples of D2 or D3 at something falling within the scope of the claims, selection was required at several levels.

(i.5) In particular one would have needed to choose that it was an organoaluminum component that was to be altered, secondly to choose which of the organoaluminum components was to be altered and finally to choose what was to replace that organoaluminum component.

(i.6) Furthermore, while it might be possible in D2 to replace the trimethyl aluminum component of the Examples with a dialkyl aluminum hydride as an alternative ingredient [A-a] for the production of the organoaluminum oxy compound [A], there was no clear disclosure that an alkyl aluminum hydride should be used to replace the organoaluminum compound [C] used in the pre-polymerisation.

Reference was made in that respect to page 5, lines 43 to 47 (definition of Component [C]), to line 48 on page 5, and to the passages from page 5, line 49 to page 6, line 31.

(i.7) Consequently there was no clear and unambiguous disclosure in D2 of a solid catalyst according to Claim 1 of the patent in suit even if the arguments concerning selection at several levels could not be accepted.

(i.8) In D3, the reference to hydrogenated organoaluminum at page 5, line 50 was in the context only of the organoaluminum compound used in preparing the aluminoxane component (see line 42).

(i.9) The only other reference in D3 to hydrogenated organoaluminum was at page 11, line 48. That was in connection with organoaluminum compounds [C-1) and [C-2], which were, however, both optional.

(i.10) Thus, the subject-matter of granted Claims 1, 3 and 5 was novel over D2 and D3.

(ii) Concerning inventive step of the subject-matter of Claims 1, 3 and 5 as granted:

The Opposition Division had not considered the question of inventive step in relation to claims 1, 3 and 5. If such an issue were to be considered before the Board, remittal of the case to the Opposition Division would appear appropriate.

V. In its letter dated 6 June 2006, the Respondent (Opponent) argued essentially as follows concerning the novelty of the subject-matter of 1, 3 and 5 as granted:

(i) The Appellant had argued that, starting from Examples of D2 and D3, there were different possibilities to replace a component of the catalyst disclosed therein.

(ii) As submitted in the letter dated 25 February 2004, starting from the general description of D2 and D3,

there was merely the need to choose the component [C] from one list in order to come to granted Claim 1.

(iii) The argument of the Appellant that the organoaluminum compounds mentioned on page 5, starting from line 48 referred to component [A-a] could not be accepted, since it could be deduced, in view of the preceding paragraphs that the passage from page 5, line 47 to page 6, line 31 related to the organoaluminum component [C].

(iv) Thus, the subject-matter of Claims 1, 3 and 5 was not novel over D2 and D3.

VI. With its letter dated 17 September 2007, the Appellant submitted a new second auxiliary request and a third auxiliary request.

VII. Oral proceedings took place before the Board on 17 October 2007.

At the oral proceedings the discussion was focussed on the novelty of the main request (claims as granted) over documents D2 and D3.

While essentially relying on the arguments presented in the written phase of the appeal, the Parties made additional submissions which may be summarized as follows:

(i) By the Respondent:

(i.1) D2 disclosed the in situ formation of an aluminoxane component (page 6, lines 36 to 43).

(i.2) D2 hence also disclosed the step of contacting the particulate support with an oxyaluminum compound.

(i.3) The use of silica as particulate carrier was disclosed in D2 (page 3, lines 45 to 48). There was a clear preference in D2 for silica as carrier since it was the carrier used in all the examples of D2.

(i.4) Group IVB transition metal compounds were disclosed at page 4, lines 16 to 17 of D2. As indicated in D2 representative transition metal compounds were zirconium compounds as enumerated from page 4, line 36 to page 5, line 34.

(i.5) The use of a hydrogenated aluminum compound was mentioned at page 5, lines 58 of D2.

(i.6) The catalyst composition of Example 1 of D2 differed from the claimed catalyst composition according to the patent in suit only in that triisobutylaluminum was used instead of a hydrogenated aluminum compound.

(i.7) In view of the teaching of D2, it was clear for the skilled person that triisobutylaluminum could be replaced by a hydrogenated organoaluminum compound in the catalyst composition according Example 1 of D2.

(i.8) Document D3 disclosed a catalyst composition comprising a particulate support, an organoaluminum oxy compound and a group IV transition metal compound (page 4, lines 14 to 20).

(i.9) This catalyst composition also comprised an organoaluminum compound such as a hydrogenated aluminum compound (page 4, lines 21 to 25; page 11, line 48).

(i.10) The catalyst compositions disclosed in Examples 18 and 19 differed from the catalyst composition according to Claim 1 of the patent in suit only in that triisobutylaluminum was used as organoaluminum compound instead of a hydrogenated organoaluminum compound.

(i.11) In view of the teaching of D3, it was clear for the skilled person that triisobutylaluminum could be replaced by a hydrogenated organoaluminum compound in the catalyst composition according Examples 18 and 19 of D3.

(ii) By the Appellant:

(ii.1) D2 disclosed a list of particulate supports (page 3, lines 45 to 47).

(ii.2) D2 also disclosed a list of organoaluminum compounds [C] (page 5, line 43 to page 6, line 31).

(ii.3) Hence a combination from two lists had to be made in order to come to the claimed subject-matter.

(ii.4) Furthermore D2 did not disclose the step of contacting the oxyaluminum compound with the particulate silica. Claim 1 of the patent in suit should be interpreted as excluding the in situ formation of the oxyaluminum compound.

(ii.5) Concerning the combination of Example 1 and the general disclosure of D2, the following steps had to be considered:

(a) To select to modify or not to modify the composition of this example,

(b) To select the component to be modified in the composition,

(c) To select the compound which would replace the component to be modified.

(ii.6) Even if a modification of the catalyst composition according of Example 1 would be considered, it would be questionable whether it would be the triisobutylaluminum component which should be replaced since it belonged to the preferred organoaluminum compounds in D2 (page 6, lines 29 to 31).

(ii.7) D3 disclosed a list of particulate supports (page 4, lines 55 to page 5, line 1).

(ii.8) D3 also disclosed a list of organoaluminum compounds (page 11, line 30 to page 12, line 12).

(ii.9) Hence, a combination from two lists had to be made in order to come to the claimed subject-matter.

(ii.10) Concerning Examples 18 and 19, the same considerations as for Example 1 of D2 would apply (cf. also D3, page 12, lines 10 to 12).

(iii) The Board after deliberation having informed the Parties that the novelty of the claimed subject-matter was considered as given over D2 and D3, both Parties requested that the case be remitted to the Opposition Division for assessment of the inventive step of the subject-matter of the main request.

VIII. The Appellant requested that the decision under appeal be set aside and the patent be maintained as granted, or on the basis of the first auxiliary request as submitted with the letter dated 15 November 2005, or on the basis of second or of the third auxiliary request both submitted with the letter dated 17 September 2007, or in the alternative that the case be remitted to the Opposition Division for consideration of inventive step on the basis of the main request.

The Respondent requested that the appeal be dismissed, or in the alternative that the case be referred back to the Opposition Division for consideration of inventive step on the basis of the main request.

Reasons for the Decision

1. The appeal is admissible.

Main request

2. *Novelty*

2.1 In its decision, the Opposition Division had considered that Claim 1 as granted lacked novelty in view of the disclosure of documents D2 and D3. While the Appellant

had contested the findings of the Opposition Division in that respect, the Respondent had maintained the view that D2 and D3 were novelty destroying documents for the subject-matter of granted Claim 1.

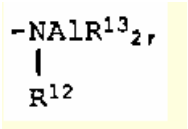
2.2 Document D2 relates to an olefin polymerization solid catalyst obtainable by prepolymerizing an olefin in a suspension comprising:
[A] a component obtainable by bringing a particulate carrier, an organoaluminum compound [A-a] and water into contact with one another,
[B] a transition metal compound containing a ligand having a cycloalkadienyl skeleton
and [C] an organoaluminum compound (Claims 1 and 2).

2.3 According to D2, the particulate carrier includes particulate inorganic or organic carriers having an average particle diameter of usually 1-300 μm. The particulate inorganic carrier used includes preferably oxides, such as SiO_2, Al_2O_3, MgO, ZrO_2, TiO_2 or mixtures thereof and the particulate organic carrier used includes particulate organic polymers, such as polystyrene or particulate polymers of olefins (e.g. polyethylene, polypropylene, poly-1-butene and poly-4-methyl-1-pentene) (page 3, lines 45 to 52). The organoaluminum compounds [A-a] used in the preparation of component [A] comprise compounds such as trialkylaluminum compounds, dialkylaluminum halides, dialkylaluminum hydrides, dialkylaluminum alkoxides, dialkylaluminum aryloxides and isoproprenylaluminum compounds (page 3, line 53 to page 4, line 6).

2.4 According to D2, the transition metal compound [B] is represented by the formula MLx wherein M is a

transition metal, L is a ligand coordinating to the transition metal, at least one of L is a ligand having a cycloalkadienyl skeleton, and when at least two or more ligands having a cycloalkadienyl skeleton are contained, at least two ligands having a cycloalkadienyl skeleton may be linked together via alkylene, substituted alkylene, silylene or substituted silylene, L other than the ligand having a cycloalkadienyl skeleton is hydrocarbon group of 1-12 carbon atoms, alkoxy of 1-12 carbon atoms, aryloxy, silyloxy, halogen or hydrogen, and x is a valence of the transition metal. M which is a transition metal includes zirconium, titanium, hafnium, chromium or vanadium by preference (page 4, lines 9 to 17).

2.5 As disclosed in D2 the organoaluminum compounds [C] may be compounds having the formula $R^6_nAlX_{3-n}$ wherein R^6 is hydrocarbon of 1-12 carbon atoms, X is halogen and n is 1-3, alkylaluminum sesquihalides, alkylaluminum hydrides, or compounds represented by the formula $R^6_nAlY_{3-n}$ wherein R^6 is as defined previously, Y is $-OR^7$, $-OSiR^8_3$, $-OAlR^9_2$, $-NR^{10}_2$, $-SiR^{11}_3$ or



n is 1-2, R^7, R^8, R^9 and R^{13} are each methyl, ethyl, isopropyl, isobutyl, cyclohexyl or phenyl, R^{10} is hydrogen, methyl, ethyl, isopropyl, phenyl or trimethylsilyl, R^{11} and R^{12} are each methyl or ethyl (page 5, line 43 to page 6, line 11).

2.6 More specifically, D2 discloses in its Examples 1 to 3, the preparation of a catalyst according to Claims 1 and 2 thereof in which the particulate carrier used in the

preparation of component [A] is silica, the component [C] is triisobutylaluminum, and the transition metal catalyst is a zirconium compound with cyclopentadienyl ligands (bis(methylcyclopentadienyl) zirconium dichloride in Ex.1, bis(methylcyclopentadienyl) zirconium methoxy monochloride in Ex.2, and ethylenebis(indenyl)zirconium dichloride in Ex.3).

2.7 Document D3 deals with an olefin polymerization solid catalyst obtainable by prepolymerizing at least one olefin in the presence of:
[A-2] a solid catalyst component comprising (a-1) a particulate carrier which is (i) composed of an oxide of at least one element belonging to Group II, III or IV of the Periodic Table, (ii) contains less than 1.0% by weight of water and (iii) comprises at least 1.0% by weight of surface hydroxyl groups, and supported on the particulate carrier (a-1);
(a-2) an organoaluminum oxy compound
[B] a catalyst component which is a compound of at least one transition metal belonging to Group IVB of the Periodic Table containing a ligand having a cyclopentadienyl skeleton; and, optionally,
[C-1] a catalyst component which is an organoaluminum compound.
The catalyst might further comprise a component [C-2] which is an organoaluminum compound (Claims 7 and 10).

2.8 According to D3, the particulate carrier (a-1) includes particulate inorganic compounds comprising an oxide of at least one element selected from among those belonging to the groups II, III and IV of the Periodic Table, and is preferably selected from porous oxides such as SiO_2, Al_2O_3, MgO, ZrO_2, TiO_2, B_2O_3, CaO, ZnO, BaO,

ThO_2 or mixtures of porous oxides (page 4, lines 52 to 56).

2.9 The organoaluminum compounds [C-1] and [C-2] are compounds represented by the formula $R^5_nAlX_{3-n}$ wherein R^5 is hydrocarbon of 1-12 carbon atoms, X is halogen or hydrogen and n is 1-3 (e.g. trialkylaluminum, dialkylaluminum halides, alkylaluminum dihalides, and alkylaluminum hydrides), alkylaluminum sesquihalides or compounds represented by the formula $R^5_nAlY_{3-n}$ wherein R^5 is as defined previously, Y is $-OR^6$, $-OSiR^7_3$, $-OAlR^8_2$, $-NR^9_2$, $-SiR^{10}_3$ or $N(R^{11})AlR^{12}_2$, n is 1-2, R^6, R^7, R^8, and R^{12} are each methyl, ethyl, isopropyl, isobutyl, cyclohexyl or phenyl, R^9 is hydrogen, methyl, ethyl, isopropyl, phenyl or trimethylsilyl, R^{10} and R^{11} are each methyl or ethyl (page 11, lines 30 to 54).

2.10 More precisely, D3 discloses in its Examples 1 to 9, 11 to 31, catalyst compositions comprising a silica as particulate carrier, a zirconium compound having cyclopentadienyl ligands as transition metal compound, and triisobutylaluminum either as component C-1 (Examples 1 to 3, 9, 11 to 12, 14 to 15, 30) or as component C-1 and component C-2 (Examples 4 to 8, 13, 16 to 29, 31 to 33). In the catalyst composition according to Example 10, neither a component C1 nor a component C-2 is present.

2.11 In this connection the Board however observes that Claim 1 of the patent in suit requires explicitly that the solid catalyst composition must comprise
(i) an organoaluminum oxy-compound (A),

(ii) a group IVB transition metal compound containing a ligand or ligands having a cyclopentadienyl structure (B),

(iii) a hydrogenated organoaluminum compound (C), and

(iv) a particulate silica (D).

2.12 These compositional features (i),(ii), (iii) and (iv) are further associated in Claim 1 with process features (v) according to which the catalyst is obtainable by bringing (D) into contact with (A) and then bringing the resulting product into contact with (B) and (C), in either order.

2.13 Independently of the fact that process features can only contribute to the novelty of a product claim insofar as they give rise to "other" products (cf. decision T 205/83, (OJ EPO 1985, 363; Reasons 3.2.1), the Board observes that in document D2 an oxy organoaluminum compound is formed in situ by reaction of the organoaluminum compound [A-a] with water in presence of the particulate support, and hence inevitably brought into contact with this particulate carrier before being mixed with the other components of the catalyst (i.e. transition metal compound and organoaluminum compounds). The Board further observes that in document D3 the component [A-2] is composed of an oxy organoaluminum compound supported on a particulate carrier (i.e. brought into contact with the particulate carrier) and mixed with the further components of the catalyst (i.e. the group IV transition metal catalyst and the components C-1 and/or C-2 when present). It thus follows that process feature

(v) according to granted Claim 1 does not constitute a distinguishing feature over documents D2 and D3.

2.14 Consequently, it remains to be decided whether the combination of compositional features (i), (ii), (iii) and (iv) set out in paragraph 2.11 above provides a distinction over D3 and D2.

2.15 According to the decision T 355/99 of 30 July 2002 (not published in OJ EPO),July 2002 (not published in OJ EPO), it is not sufficient for a finding of lack of novelty that the claimed features could have been derived from a prior art document, there must have been a clear and unmistakable teaching of the claimed features (Reasons, point 2.2.4).

2.16 Thus, the question boils down as to whether there is in D2 and D3 a clear and unmistakable teaching of the combination of features mentioned above in paragraph 2.11.

2.17 In this connection, the Board observes that, while the reaction of the organoaluminum compound [A-a] with water according to document D2 would indisputably result in the formation of an oxy organoaluminum compound falling under the definition of component [A] according to Claim 1 of the patent in suit, it still remains that the particulate carrier in D2 can be chosen among a list of inorganic and organic particulate carriers including silica as one of its members, that the transition metal [B] in D2 containing a ligand having a cycloalkadienyl skeleton can be chosen among a list of transition metal compounds including Group IV B transition metals, and that the

organoaluminum compound [C] of D2 can be chosen among a list including hydrogenated organoaluminum compounds as members (cf. paragraphs 2.3, 2.4 and 2.5 above).

2.18 Thus, in order to come to a catalyst composition falling under the scope of Claim 1 as granted, it is necessary to select silica from a list of particulate carriers, to select Group IVB transition metal catalyst among the transition metal compounds, and to select hydrogenated organoaluminum among the organoaluminum compounds.

2.19 The Board can only state that there is no explicit disclosure of such combination in D2, either in the general part of the description or in the examples.

2.20 Nor could this combination be considered as implicitly disclosed in D2 in view of the Examples of D2 and the teaching on page 5, line 58 of D2 according to which alkyl aluminum hydrides could be used as organoaluminum compound [C].

2.20.1 This is principally because considerations as to whether the replacement of triisobutyl aluminum by a hydrogenated organoaluminum compound in the catalyst compositions disclosed in Examples 1 to 3 of D2 could have been suggested to the skilled person by the passage on page 5 would amount, in the Board's view, to inventive step considerations which must be avoided when assessing novelty (cf. decision T 572/88 of 27 February 1991; not published in OJ EPO).

2.20.2 Even if, however, a modification of the catalyst composition of Examples 1 to 3 would have been

contemplated by the person skilled in the art, he would have been confronted with several possibilities of modifications such as the ratio of the different components, modification of the particulate carrier, modification of the transition metal compound such as done in Example 2 in respect to the composition of Example 1, or modification of the organoaluminum compound, so that it could not be ascertained that the skilled person would have inevitably replaced the triisobutylaluminum compound by a hydrogenated organoaluminum compound in the compositions of Examples 1 to 3 of D2.

2.20.3 In addition to these several possibilities of modifications, the skilled reader of D2 should furthermore have perceived from the outset that the contemplated modification would inevitably result in an equivalent catalyst composition to the one disclosed in the examples of D2. This is, however, in the present case highly questionable, since triisobutyl aluminum, in contrast to hydrogenated organoaluminum components belongs to preferred organoaluminum components in D2 (cf. page 6, lines 29 to 31).

2.21 Consequently, since there is in D2, either explicitly or implicitly, no clear and unmistakable teaching of the combination of features mentioned above in paragraph 2.11, the subject-matter of granted Claim 1 must be regarded as novel over D2 (Article 54(1)(2) EPC. The same conclusion evidently applies to the subject-matter of Claims 2 to 5.

2.22 Concerning document D3, while it is clear that the organoaluminum oxy compound [a-2], and the component [B]

of the catalyst composition according to Claim 7 of D3 fall, respectively, under the definition of component (A) and (B) of the catalyst composition according to granted Claim 1, it still remains that the particulate carrier (a-1) in D3 can be chosen among a list of inorganic particulate carriers including silica as one of its member, and that the optional organoaluminum compounds [C1] and [C2] of the catalyst composition according to Claim 7 of D3 can be chosen, if used, among a list among a list including hydrogenated organoaluminum compounds as members (cf. paragraphs 2.8 and 2.9 above).

2.23 Thus, in order to come to a catalyst composition falling under the scope of Claim 1 as granted, it is necessary to select silica from a list of particulate carriers, to choose to use a component [C1] and/or [C2], and, if so, to further select hydrogenated organoaluminum among the organoaluminum compounds as components [C1] and/or [C2].

2.24 The Board can only state that there is no explicit disclosure of such combination either in the general part of the description or in the examples of D3.

2.25 Nor could the specific combination of features required by granted Claim 1 be considered as implicitly disclosed in D3 in view of the examples of D3 referred above in paragraph 2.10 and of the teaching at page 11, lines 30 to 33, and 48 of D3, according to which alkyl aluminum hydrides could be used as organoaluminum compounds [C1] and or [C2].

2.25.1 While it is true the catalyst compositions disclosed in the Examples 1 to 9, and 11 to 33 differ from the claimed catalyst compositions according to granted Claim 1 only in that triisobutylaluminum is used as organoaluminum compound (i.e. either as component [C1] in Examples 1-3, 9, 11, 12, 14, 15 and 30, or as components [C1] and [C2] in Examples 4 to 8, 13, 16-29, 31 and 33), this is firstly because the same considerations as made above in paragraphs 2.20.1 would equally apply to document D3 when assessing novelty of the subject-matter of Claim 1.

2.25.2 Even if, however, a modification of the catalyst composition of Examples 1 to 9, 11 to 33 would have been contemplated by the person skilled in the art, he would, as in the case of D2, have been confronted with several possibilities of modifications such as the ratio of the different components, modification of the carrier, modification of the transition metal compound, or modification of the organoaluminum compound [C1] and/or [C2] or no use of them as done in Example 10 of D3, so that it could not be ascertained that the skilled person would have inevitably replaced the triisobutylaluminum compound used in these Examples 1 to 9 and 11 to 33, by a hydrogenated organoaluminum compound, taking further into account that, as in the case of D2 (cf. paragraph 2.20.3), triisobutyl aluminum in contrast to hydrogenated organoaluminum components belongs to preferred organoaluminum components in D3 (cf. page 12, lines 10 to 12).

2.26 Consequently, the subject-matter of granted Claim 1 must be regarded as novel over D3 (Article 54(3)(4)) EPC. The same conclusion evidently applies to the subject-matter of granted Claims 2 to 5.

3. *Remittal*

3.1 As indicated above in Section IV, the Opposition Division rejected the main request for lack of novelty of granted Claims 1, 3 and 5, and as a consequence did not express its opinion regarding the ground of lack of inventive step of the subject-matter of granted Claim 1.

3.2 Having regard to the requests of both Parties for remittal to the first instance and in order not to deprive them of the possibility to be heard by two instances, the Board considers it appropriate to make use of its discretionary power under Article 111(1) EPC and to remit the case to the first instance for further prosecution.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The case is remitted back to the first instance for further prosecution on the basis of the Main Request (patent as granted).

The Registrar: The Chairman:

E. Görgmaier R. Young