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D E C I S I O N
of 3 July 2001

Case Number: T 1063/98 - 3.3.3

Application Number: 91301168.0

Publication Number: 0442725

IPC: C08F 10/00

Language of the proceedings: EN

Title of invention:
Olefin polymerization solid catalysts and process for the polymerization of olefins

Patentee:
Mitsui Chemicals, Inc.

Opponent:
Basell Polyolefine GmbH

Headword:
-

Relevant legal provisions:
EPC Art. 108, 54, 114(2)

Keyword:
"Form of appeal - grounds - substantiation (yes)"
"Novelty - main request (no) - first auxiliary request (no) - second auxiliary request (yes)"
"Late submitted material - documents admitted (yes)"

Decisions cited:
T 0117/86, T 0416/87, T 0101/87, T 0951/91, T 1002/92

Catchword:
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Beschwerdekammern | Boards of Appeal | Chambres de recours

Case Number: T 1063/98 - 3.3.3

D E C I S I O N
of the Technical Board of Appeal 3.3.3
of 3 July 2001

Appellant: (Opponent)
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Respondent: (Proprietor of the patent)
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Decision under appeal: **Interlocutory decision of the Opposition Division of the European Patent Office posted 15 September 1998 concerning maintenance of European patent No. 0 442 725 in amended form.**

Composition of the Board:

Chairman: R. J. Young
Members: B. L. ter Laan
J. C. M. De Preter

Summary of Facts and Submissions

I. Mention of the grant of European patent No. 0 442 725 in respect of European patent application No. 91 301 168.0, filed on 13 February 1991, claiming priority from an earlier application in Japan (32091/90 of 13 February 1990), was published on 4 October 1995 (Bulletin 95/40) on the basis of a set of four claims for the contracting states AT, BE, CH, LI, DE, DK, FR, GB, GR, IT, LU, NL and SE and a set of nine claims for ES.

Claim 1 of the former set read:

"An olefin polymerisation 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, and [B] a transition metal compound of formula MLx wherein M is a transition metal, L is a ligand coordinating to the transition metal, at least one L is a ligand having a cycloalkadienyl skeleton, and when two or more ligands have a cycloalkadienyl skeleton at least two ligands having a cycloalkadienyl skeleton may be linked together via an alkylene, substituted alkylene, silylene or substituted silylene group, any other L is a hydrocarbon group of 1-12 carbon atoms, an alkoxy group of 1-12 carbon atoms, aryloxy, silyloxy, halogen or hydrogen, and x is the valence of the transition metal."

Claim 2 referred to a preferred embodiment of the

catalyst according to Claim 1. Claim 3 was directed to a process for the preparation of an olefin polymer comprising polymerizing at least one olefin in the presence of a catalyst as claimed in Claim 1 or 2. Claim 4 referred to a preferred embodiment of the process according to Claim 3.

The first four claims of the set of claims for ES were (apart from the spelling of "polymerisation" in Claim 1, line 1) identical to those for the other contracting states; independent Claim 5 read:

"A process for producing an olefin polymerization catalyst which process comprises 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, and [B] a transition metal compound of formula MLx wherein M is a transition metal, L is a ligand coordinating to the transition metal, at least one L is a ligand having a cycloalkadienyl skeleton, and when two or more ligands have a cycloalkadienyl skeleton at least two ligands having a cycloalkadienyl skeleton may be linked together via alkylene, substituted alkylene, silylene or substituted silylene group, any other L is a hydrocarbon group of 1-12 carbon atoms, an alkoxy group of 1-12 carbon atoms, aryloxy, silyloxy, halogen or hydrogen, and x is the valence of the transition metal."

Claim 6 referred to a preferred embodiment of the process according to Claim 5.

Independent Claim 7 read:

"A process for the preparation of an olefin polymer which comprises

(a) 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, and [B] a transition metal compound of formula MLx wherein M is a transition metal, L is a ligand coordinating to the transition metal, at least one L is a ligand having a cycloalkadienyl skeleton, and when two or more ligands have a cycloalkadienyl skeleton at least two ligands having a cycloalkadienyl skeleton may be linked together via an alkylene, substituted alkylene, silylene or substituted silylene group, any other L is a hydrocarbon group of 1-12 carbon atoms, an alkoxy group of 1-12 carbon atoms, aryloxy, silyloxy, halogen or hydrogen, and x is the valence of the transition metal to produce a catalyst, and

(b) polymerizing at least one olefin in the presence of the catalyst.

Claims 8 and 9 were directed to preferred embodiments of the process of Claim 7.

II. On 4 July 1996 a Notice of Opposition against the granted patent was filed, in which the revocation of the patent in its entirety was requested on the grounds

of lack of novelty and inventive step as set out in Article 100(a) EPC.

The opposition was supported by the following documents:

D1: EP-A-0 336 593; and

D2: EP-A-0 170 059.

III. By a decision issued in writing on 15 September 1998, the Opposition Division held that the grounds for opposition did not prejudice the maintenance of the patent in an amended form, the catalyst of granted Claim 1 containing the additional requirement of the presence, in the suspension, of "[C] an organoaluminum compound.", which had been the subject-matter of Claim 2 as granted. The other claims were renumbered accordingly. In the set of claims for ES, Claims 5 and 7 as granted were also amended accordingly and the claims were likewise renumbered.

The Opposition Division held that

(a) The requirements pursuant to Articles 84, 123(2) and 123(3) EPC were fulfilled.

(b) The claimed subject-matter was novel since neither of the two cited documents mentioned a prepolymerization step nor the addition of a further organo-aluminium compound before that prepolymerization step, as required by the patent in suit.

(c) The problem to be solved was to provide an

improved catalyst for olefin polymerization, which problem had been effectively solved. Since neither of the two cited documents suggested any advantages of the above-mentioned prepolymerization and addition, the claimed combination of features was considered inventive.

IV. On 7 November 1998 the Appellant (Opponent) lodged an appeal against the above decision and the prescribed fee was paid simultaneously. The Statement of Grounds of Appeal was filed on 15 January 1999. It referred to two documents which had not been mentioned in the proceedings before:

D3: EP-A-0 294 942; and

D4: EP-A-0 279 863.

In a letter filed on 3 May 2001, further arguments were submitted.

The Appellant's written arguments in essence amounted to the following:

(a) The disclosure of D4 was novelty destroying for the subject-matter of Claim 1.

(b) The solution offered by the patent in suit to solve the problem of providing an improved olefin polymerization catalyst that was also simpler to prepare was obvious over D1 and D2, supported by general knowledge. Also D3 rendered the claimed features obvious in the light of D1 and/or D2.

In reply to the appeal, the Respondent (Proprietor)

argued, in written submissions dated 26 January 2001 and 25 June 2001, respectively, essentially as follows:

(a) The late filed documents D3 and D4 should not be admitted to the proceedings since the Appellant had been aware of them at the time that the opposition against the patent in suit was started. Not only did this constitute an abuse of procedure, but also it had to be concluded that the Appellant itself at the time of the opposition did not consider D3 and D4 to be sufficiently relevant to mention.

(b) The claimed subject-matter was novel over D4. Nor did D3 contain any specific teaching relevant to the claimed subject-matter. Therefore, neither D3 nor D4 was sufficiently relevant to be admitted into the proceedings.

In the submission of 25 June 2001 new claims were filed as an auxiliary request: a set of three claims for all designated states except ES and a set of six claims for ES, Claims 1 to 3 of each set having identical wording (except for the spelling of the word "polymerisation" in Claim 1 for ES, line 1).

Claim 1 for all designated states differed from Claim 1 as maintained by the Opposition Division in that the amount of water in component [A] was specified. The claim read as follows:

"An olefin polymerisation 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 $5x10^{-4}$ to 10^{-1} mole water per 1 g of particulate carrier into contact with one another, [B] a transition metal compound of formula MLx wherein M is a transition metal, L is a ligand coordinating to the transition metal, at least one L is a ligand having a cycloalkadienyl skeleton, and when two or more ligands have a cycloalkadienyl skeleton at least two ligands having a cycloalkadienyl skeleton may be linked together via an alkylene, substituted alkylene, silylene or substituted silylene group, any other L is a hydrocarbon group of 1-12 carbon atoms, an alkoxy group of 1-12 carbon atoms, aryloxy, silyloxy, halogen or hydrogen, and x is the valence of the transition metal, and [C] an organoaluminum compound."

Claims 2 and 3 for all designated states remained unchanged from the version maintained by the Opposition Division (section III, above). Of the claims for ES, Claims 4 and 5 had been amended to incorporate a limitation (the amount of water in component [A]) corresponding to that already introduced into Claim 1, but were otherwise identical with Claim 1 to 6 for ES as maintained by the Opposition Division (section III, above).

V. During the oral proceedings held on 3 July 2001, not only the relevance of D3 and D4, but also the admissibility of the appeal were discussed, the latter issue being raised by the Respondent for the first time during oral proceedings. Furthermore, the relevance, for novelty, of D1 and D2, which documents had been in the proceedings as from the beginning and upon which the initial opposition arguments had been based, was

discussed.

(a) Regarding the admissibility of the appeal, the Respondent argued that the only grounds given for the appeal were based upon D3 and D4. If D3 and D4 were not to be admitted into the proceedings, no grounds for the appeal were left, so that the appeal was then inadmissible. In support, the Respondent cited a number of decisions of the Board of Appeal.

The Appellant maintained that D3 and D4 were so relevant that they should be admitted; however, even if they were not admitted, the grounds for the appeal also contained references to D1 and D2, so that the appeal was admissible anyway.

(b) Regarding D1 and D2, The Appellant argued that these documents disclosed all the elements of the claimed subject-matter, so that the latter was not novel, or at least not inventive. In particular, the organoaluminium compound which was reacted with water, was not entirely consumed during that reaction, so that some of it remained in its original form. Also, the amount of polymer formed fell within the scope of the prepolymerization now claimed.

The Respondent replied that neither D1 nor D2 disclosed the concept of prepolymerization; any such interpretation was based upon hindsight. Also, no further organoaluminium compound was added. Nevertheless, two further sets of claims were filed: a set of Claims 1 and 2 as second auxiliary request and a single claim as third

auxiliary request. In these sets, no separate claims for ES were present.

Claim 1 of the second auxiliary request reads:

"A process for the preparation of an olefin polymer, which comprises polymerizing at least one olefin in the presence of a 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 $5x10^{-4}$ to 10^{-1} mole water per 1 g of particulate carrier into contact with one another,

[B] a transition metal compound of formula MLx wherein M is a transition metal, L is a ligand coordinating to the transition metal, at least one L is a ligand having a cycloalkadienyl skeleton, and when two or more ligands have a cycloalkadienyl skeleton at least two ligands having a cycloalkadienyl skeleton may be linked together via an alkylene, substituted alkylene, silylene or substituted silylene group, any other L is a hydrocarbon group of 1-12 carbon atoms, an alkoxy group of 1-12 carbon atoms, aryloxy, silyloxy, halogen or hydrogen, and x is the valence of the transition metal, and further organoaluminum compound."

Claim 2 reads as follows:

"A process for the preparation of an olefin polymer, which comprises polymerizing at least one olefin in the presence of a catalyst as claimed in Claim 1 and an organoaluminum compound."

The single claim of the third auxiliary request reads:

"A process for the preparation of an olefin polymer, which comprises

producing a component [A] by bringing a particulate carrier, an organoaluminum compound [A-a] and $5x10^{-4}$ to 10^{-1} mole water per 1 g of particulate carrier into contact with one another, and prepolymerizing an olefin in a suspension comprising component [A],[B] a transition metal compound of formula MLx wherein M is a transition metal, L is a ligand coordinating to the transition metal, at least one L is a ligand having a cycloalkadienyl skeleton, and when two or more ligands have a cycloalkadienyl skeleton at least two ligands having a cycloalkadienyl skeleton may be linked together via an alkylene, substituted alkylene, silylene or substituted silylene group, any other L is a hydrocarbon group of 1-12 carbon atoms, an alkoxy group of 1-12 carbon atoms, aryloxy, silyloxy, halogen or hydrogen, and x is the valence of the transition metal and organoaluminum compound, separating the thus-formed prepolymerized catalyst and polymerizing at least one olefin in the presence of the prepolymerized catalyst further organoaluminum compound."

VI. The Appellant (Opponent) requested

- that the decision under appeal be set aside and that the European patent No. 0 442 725 as claimed in the main request corresponding to the form as maintained by the Opposition Division be revoked,

- that the auxiliary requests of the respondent be rejected as late filed or, in the alternative,

- that the case be remitted to the first instance.

The Respondent (Proprietor) requested

- not to admit documents D3 and D4 and to reject the appeal as inadmissible, in the alternative,

- to dismiss the appeal or

- to maintain the patent on the basis of the first auxiliary request, filed with letter of 25 June 2001, or

- on the basis of the second or third auxiliary request filed during the oral proceedings, or in the alternative,

- to remit the case to the first instance for further prosecution.

Reasons for the Decision

Admissibility

1. The appeal complies with Articles 106 and 107 EPC as well as with the first and second sentences of Article 108 EPC and with Rule 64 EPC. Its admissibility therefore depends solely on the contents of the letter received 15 January 1999, which contains a heading "Beschwerdebegründung" and which, according to the Respondent, did not set out the grounds for the Appeal

in the sense of Article 108 EPC, third sentence.

1.1 In the present case, the original grounds for the opposition were lack of novelty over either of D1 and D2 and lack of inventive step over D1 and D2 taken alone or in combination (Notice of Opposition received on 4 July 1996). The Statement of Grounds of Appeal filed on 15 January 1999 starts by mentioning the documents, D1 to D4. D3 and D4 were mentioned for the first time in this statement. The arguments regarding novelty were solely based upon D4. Inventive step was denied in the light of D3 as well as D1 and D2 (page 4, fourth, fifth and sixth complete paragraphs).

1.2 As the grounds for appeal therefore remained within the legal framework of the original opposition, the appeal is admissible (Case Law of the Boards of Appeal of the European Patent Office 3rd edition, VII, D, 7.5.2(b)). In that respect, it has to be stressed that the decisions cited by the Respondent during the oral proceedings (T 117/86, T 416/87, T 101/87, T 951/91 and T 1002/92) dealt only with the admissibility of late filed documents, not with the admissibility of the appeal as such.

1.3 Moreover, irrespective of the admissibility into the proceedings of D3 and D4, the appeal was also not based entirely upon these new documents. For that reason, even if D3 and D4 were not to be admitted to the proceedings, the appeal would still have a basis in grounds and documents which had been present in the opposition as from the beginning.

2. Nor does the Board see an abuse in the late filing of D3 and D4. The *ratio decidendi* of the Opposition

Division was, that neither D1 nor D2 disclosed a prepolymerization step. The introduction of D3 and D4, which do describe such a prepolymerization step, can be seen as a reaction to that decision.

3. In the light of the above, the Board concludes that the appeal is admissible.

Main request

Amendments

4. No objections against the amendments have been raised pursuant to Articles 123(2), 123(3) and 84 EPC and the Board sees no reason to deviate from that point of view, since (i) the basis for the additional requirement [C] can be found in Claim 2 and the description, on page 13, line 13 to page 16, line 8 of the application as originally filed, (ii) the claim is limited by the additional requirement compared with the version as granted and also (iii) it is clear.

Novelty

5. One of the objections upon which the opposition was based was an alleged lack of novelty over either of D1 and D2. Although the allegation was not pursued specifically in relation to these documents in the Statement of Grounds of Appeal, it nevertheless forms part of the factual and legal framework of the original opposition (section i., above). Hence it is permissible, and indeed necessary for the Board to address this issue in the present appeal proceedings.

5.1 D1 discloses a process for preparing a supported

metallocene aluminoxane catalyst for polymerization of olefins, comprising the steps of (a) adding a water-impregnated catalyst support to a stirred solution of an aluminium trialkyl in an amount sufficient to provide a mole ratio of aluminium trialkyl to water of from 10:1 to 1:1 and allowing the mixture to react; and (b) adding a metallocene to the reacted mixture in an amount sufficient to provide a mole ratio of aluminium to transition metal of from 1000:1 to 1:1 (Claim 1). The catalyst thus obtained is used for the polymerization of olefins. The absorbed water content of the catalyst support, a water-impregnated silica gel, is 10 to 50 wt.%, preferably 20 to 40 and most preferably 35 wt.% (page 5, lines 57 to 58). In Example 1, silica gel is treated with water and then air-dried so as to arrive at a water content of 37 wt.%. 130 mg of that product is added to a triethylaluminium/heptane solution in a reactor under nitrogen and allowed to react. Then a zirconium based metallocene is added to form the catalyst *in situ*. The reactor is pressurised with ethylene and butene-1 is injected, resulting in 39 mg of resin. Hence, the amount of polyolefin resulting from the polymerization is about 476 gram per gram of the particulate carrier.

5.2 D2 describes a process for the (co)polymerization of ethylene in the presence of a mixed catalyst consisting of a transition metal component A and an organoaluminium component B, which is prepared by reacting water with a trialkyl aluminium compound in a mole ratio of trialkylaluminium to water of from 4:1 to 0.25:1 in the presence of a particulate compound based on silicon oxide and/or aluminium oxide in a weight ratio of water to particulate compound of from 3:1 to 1:3 at a temperature of -20°C to 1000°C, component A

being a transition metal compound of the formula $(cyclopentadienyl)_2MeRHal$, in which R is cyclopentadienyl, a C_1- to C_6-alkyl or halogen, Hal is halogen and Me is titanium or zirconium (Claim). For obtaining broad molecular weight polymers, polymerization can be carried out in two or more steps, each with different polymerization conditions (page 4, lines 29 to 33). In Example 1, 500 mg SiO_2 and 0.29 cm^3 water are introduced in a reaction vessel. After stirring, triethylaluminium is added. After further stirring and raising the temperature, $(cyclopentadienyl)_2ZrCl_2$ is introduced, after which ethylene is added and polymerization is started. 150 g polyethylene is produced, amounting to 300 g polymer per g SiO_2.

5.3 Claim 1 of the main request is a product-by-process claim, which has to be interpreted in an absolute sense, i.e. independently of the process (cf. Case Law by the Boards of Appeal of the European Patent Office, 3rd. edition, II.B.6). In that light, the meaning of the requirements of prepolymerization and the presence of component C, an organoaluminium compound, which are, according to the Respondent, the two distinguishing features over D1 or D2, has to be appraised.

5.3.1 The patent in suit does not give a definition of what exactly is to be understood under "pre-polymerization". As can be seen from the examples and patent specification, pre-polymerization is, in principle, a normal polymerization carried out in such a manner that it results in a relatively high catalyst: polymer ratio. According to the patent in suit page 7, lines 21 to 22, the amount, based on 1 g of the particulate carrier, of the polymer resulting from the pre-

polymerization of olefin is generally 0.1 to 500 g, preferably 0.3 to 300 g, and especially 1 to 100 g.

Since the catalyst: polymer ratio described in the Examples 1 of both D1 and D2, (with 476 and 300 g polymer per g carrier, respectively) as well as in some of the other examples given in those documents, falls within the scope of the pre-polymerized product of the patent in suit, the pre-polymerization described in the latter cannot be distinguished from the polymerizations described in D1 and D2.

Furthermore, component [A] of the claimed catalyst is obtained by bringing a particulate carrier, an organoaluminium compound [A-a] and water into contact with one another. No amounts are indicated, so that excess water or excess organoaluminium may be present, resulting in the presence of unreacted water or organoaluminium. The organoaluminium compound [C], which is not further defined and, as a consequence, may be the same as that of component [A] (patent specification page 5, lines 38 to page 6, line 36 compared with page 3, lines 50 to 58), can thus be present as a remainder of the latter. Since the reactions described in the relevant examples of D1 and D2 will result in unreacted organoaluminium being present, the additional requirement of the presence of Component [C] can also not serve as a distinguishing feature of present Claim 1 over D1 or D2.

5.3.2 In view of the above, the polymerization product according to D1 or D2 cannot be distinguished from the pre-polymerization product of the patent in suit.

5.4 Therefore, the subject-matter of Claim 1 of the main

request lacks novelty over either of D1 or D2.

6. Consequently, the main request has to be refused.

First auxiliary request

Amendments

7. No objections against the amendments have been raised pursuant to Articles 123(2), 123(3) and 84 and the Board sees no reason to deviate from that point of view since (i) the basis for the additional requirement of the amount of water in relation to the particulate carrier can be found in the description of the application as originally filed, on page 16, lines 16 to 20, (ii) the claim is limited by the additional requirement compared with the version as granted and also (iii) it is clear.

Novelty

8. Claim 1 of the first auxiliary request differs from Claim 1 of the main request in that the amount of water present in relation to the particulate carrier is required to be $5x10^{-4}$ to 10^{-1} mole water per gram of carrier, which corresponds to a weight ratio of water to carrier from 0.009 to 1.8. As can be seen from the above analyses of D1 and D2, such amounts are, however, known from those documents, so that this added feature cannot serve to establish novelty over D1 or D2.

Therefore, Claim 1 of the first auxiliary request also lacks novelty over either of D1 or D2.

9. Consequently, the first auxiliary request has to be

refused.

Second auxiliary request

Amendments

10. Claim 1 of the second auxiliary request concerns a polymerization process in the presence of a catalyst obtainable as defined in claim 1 of the first auxiliary request, with the additional requirement of the presence, in the suspension, of **further** organoaluminium compound (emphasis added).

10.1 The basis for the polymerization process can be found in Claim 3 as originally filed.

The basis for the presence of a further organoaluminium compound can be found in Claim 2 as originally filed, which requires that the suspension "... further comprises [C] an organoaluminium compound.", indicating that component [C] should be additional to the organoaluminium compound necessary to prepare component [A]. This is supported by all of the examples, in which component [A] is prepared with trimethylaluminium, after which triisobutylaluminium is added as a further component before (pre-)polymerization is started. Therefore, the requirements of Article 123(2) EPC are met.

10.2 Since the amendments are directly based upon original Claim 3, corresponding to Claim 3 as granted, and concern two further requirements that amount to restrictions, the requirements of Article 123(3) EPC are also satisfied.

10.3 The meaning of a "further organoaluminium compound" being present is clear in that that compound should be additional to that necessary to prepare component [A]. The other amendments also do not give rise to any unclarities (Article 84 EPC).

10.4 In view of the above, the Board, like the Appellant, who did not raise any objections in this respect, considers the amendments to be admissible.

Novelty

11. Whilst D1 and D2 each discloses a reaction which terminates with the presence of a species falling within the definition of the pre-polymerized catalyst according to Claim 1 of the main and first auxiliary request (section 5 above), neither of them discloses a process in which such a product is then applied as a catalyst in a further olefin polymerization process. In other words, whilst D1 and D2 exemplify a polymerization step which may be regarded either as a full polymerization terminated at a rather early stage, or as a pre-polymerization step, it cannot be regarded as being both. Thus the concept of a polymerization process employing the pre-polymerized catalyst cannot be said to be disclosed in D1 or D2. Hence, the subject-matter of claim 1 is novel.

Late filed documents

12. Since the main and first auxiliary requests were not novel over documents on file as from the beginning of the opposition proceedings, it was not necessary, in relation to these requests, to take the late filed documents D3 and D4 into account and to consider

whether they were sufficiently relevant to be admitted to the procedure. The case is different, however, for the second auxiliary request, which has been found novel over D1 and D2.

12.1 Whilst neither D1 nor D2 discloses a process involving both a pre-polymerization step and the use of the resulting product in an olefin polymerization (section 11, above), in the examples of both D3 and D4 aluminoxane is prepared separately and added to a suspension of a carrier with an organoaluminium compound, to which a metallocene compound is then added. Then, preliminary polymerization is carried out and the pre-polymerized catalyst thus obtained is separated and used further for olefin polymerization.

12.2 Therefore, both D3 and D4 not only describe the separation of the catalyst after preliminary polymerization, but also the use of an organoaluminium compound additional to the aluminoxane component.

Since from D1 (page 4, lines 16 to 21) and D2 (page 2, line 1 to page 4, line 5) it is known that the reaction of the support, water and organoaluminium compound gives rise to a support containing aluminoxane adsorbed onto its surface and Claim 1 of the second auxiliary request concerns a process carried out "in the presence of a catalyst obtainable by ...", which therefore leaves open the possibility of a catalyst obtained by another method, the question arises of whether and, if so, to what extent D3 and/or D4, possibly in combination with D1 and/or D2, lead in an obvious way to the subject-matter now being claimed.

12.3 In view of the above, the Board considers the two late

filed documents D3 and D4 sufficiently relevant for them to be admitted to the proceedings (Article 114(1) EPC).

13. Since, furthermore, and as a consequence of the admission of D3 and D4, the case against the patent in suit takes on a new aspect, and in order not to deprive any of the parties of the possibility to be heard by two instances, the Board has decided, in accordance with the relevant requests of the parties, to make use of its power under Article 111(1) EPC to refer the case back to the Opposition Division for further prosecution.

14. In view of the above, it was not necessary for the Board further to consider the third auxiliary request of the Respondent.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. Documents D3 and D4 are admitted in the proceedings.

3. The main request and first auxiliary request (filed on 25 June 2001) of the Respondent are refused.

4. The case is remitted to the Opposition Division for further prosecution on the basis of the second auxiliary request filed during the oral proceedings.

The Registrar: The Chairman:

E. Görgmaier R. Young