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**Datasheet for the decision  
of 7 May 2009**

**Case Number:** T 0008/07 - 3.3.03

**Application Number:** 92111785.9

**Publication Number:** 0522581

**IPC:** C08F 10/00

**Language of the proceedings:** EN

**Title of invention:**

Process for producing olefin based polymers and olefin  
polymerization catalyst

**Patentee:**

IDEMITSU KOSAN COMPANY LIMITED

**Opponent:**

Basell Polyolefine GmbH  
Univation Technologies, LLC

**Headword:**

Disclaimer too broad (see reasons 2)

**Relevant legal provisions:**

EPC Art. 84, 123(2)

**Keyword:**

"Main request - amendments - added subject-matter - yes -  
disclaimer too broad"

"First, second auxiliary requests - amendments - added  
subject-matter (yes)"

"First, second auxiliary requests - clarity - no"

"Third auxiliary request - added subject matter (no) - clarity  
(yes) - remittal for further prosecution"

**Decisions cited:**

G 0001/03, G 0002/03

**Catchword:**  
see reasons 2



Case Number: T 0008/07 - 3.3.03

**D E C I S I O N**  
**of the Technical Board of Appeal 3.3.03**  
**of 7 May 2009**

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**Decision under appeal:** **Decision of the Opposition Division of the  
European Patent Office dated 25 October 2006  
and posted 2 November 2006 revoking European  
patent No. 0522581 pursuant to Article 102(1)  
EPC 1973.**

**Composition of the Board:**

**Chairman:** R. Young  
**Members:** M. C. Gordon  
E. Dufresne

## Summary of Facts and Submissions

I. Mention of the grant of European Patent No. 0 522 581 with the title "Process for producing olefin based polymers and olefin polymerization catalyst" in the name of Idemitsu Kosan Company Limited in respect of European patent application No. 92111785.9, filed on 10 July 1992, published on 13 January 1993, and claiming priority dates of:

11 July 1991 from JP 197188/91 and  
8 January 1992 from JP 19558/92

was announced on 15 October 1997 (Bulletin 1997/42) on the basis of 9 claims.

Claim 1 read as follows:

1. A process for polymerizing an olefin which employs a catalyst comprising, as main components, the following compounds (A) and (B):

(A) a transition metal compound containing a transition metal selected from the IVB Group of the Periodic Table; and

(B) a compound capable of forming an ionic complex when reacted with a transition metal compound,

wherein both compounds (A) and (B) are carried on a carrier (C), characterized in that an organoaluminum compound (D) is used in addition to said compounds (A) and (B).

Claims 2 to 9 were dependent claims whereby claims 2 to 5 were directed to preferred embodiments of the process according to claim 1. Claim 6 was directed to a "An olefin polymerization catalyst according to claim 5" in which Compound (A) was specified in further detail. Claims 7 to 9 were directed to preferred embodiments of the catalyst of claim 6.

II. Notices of opposition against the patent were filed by:

- Elenac GmbH, later Basell Polyolefine GmbH ("OI")  
on 10 July 1998;

- Univation Technologies L.L.C. ("OII") on 15 July 1998.

Both opponents invoked the grounds pursuant to Art. 100(a) EPC (lack of novelty, lack of inventive step).

- (a) *Inter alia* the following document was cited by the opponents:

D1: EP-A-0 500 944, which document was comprised in the state of the art pursuant to Art. 54(3) EPC 1973.

- (b) During the course of the opposition procedure the patent proprietor submitted claims containing a disclaimer in order to take account of the disclosure of examples 6 and 13 of D1. Following the referral of cases G 1/03 and G 2/03 concerning the admissibility of disclaimers to the Enlarged Board of Appeal the proceedings were adjourned (communication of the opposition division dated 5 December 2003).

The procedure was restarted after issue of the two decisions (G 1/03 and G 2/03 both dated 8 April 2004 and published in the OJ EPO 2004, pages 413 and 448 respectively).

III. By a decision announced at the end of oral proceedings held before the opposition division on 25 October 2006 and issued in writing on 2 November 2006 the opposition division revoked the patent.

- (a) The oral proceedings were attended only by OI, the patent proprietor (letter of 18 August 2006) and

OII (letter of 6 February 2006) having informed the opposition division that they would not attend.

- (b) The decision was based on a main request (the claims of the patent as granted) and sets of claims forming a first to a tenth auxiliary requests, all submitted with a letter dated 21 December 2004.

In the first to eighth auxiliary requests the definition of the organoaluminium compound (D) had been amended to read:

"and wherein an organoaluminium compound (D) containing at least one branched alkyl group having at least three carbon atoms is used in addition to said compounds".

In the ninth and tenth auxiliary requests the corresponding feature read:

"and wherein triisobutyl aluminium is used during the polymerisation".

- (c) The respective claims 1 of the first, second, third, fourth and fifth auxiliary requests further incorporated various formulations of disclaimer to take account of the disclosure of D1, whereas claim 1 of the sixth to the tenth auxiliary request defined the respective subject matter thereof in terms of positive features.

- (i) The decision held that examples 6 and 13 of D1 disclosed all the features of claim 1 of the main request (patent as granted) with the consequence that this subject matter lacked novelty (Art. 54 EPC).

- (ii) The sets of claims according to the first to fourth auxiliary requests were held not to meet the requirements of Art. 84 EPC since the terms of the respective disclaimers were unclear. In particular, the meaning of the disclaimer could not be understood by a person skilled in the art. Further it was held that the definition of the organoaluminium compound (D) in the respective claims 1 of the these requests contravened the requirements of Art. 123(2) EPC.
  
- (iii) With respect to the fifth auxiliary request it was held that the limitation of the transition metal compound (A) of claim 1 thereof to not being a halogenated metallocene compound lacked support in the originally filed documents and was "much too broad" to be an allowable disclaimer in the sense of the decisions G 1/03 and G 2/03. Further an objection pursuant to Art. 123(2) EPC was raised with respect to the definition of organoaluminium compound (D) of claim 1.
  
- (iv) The sixth, seventh, eighth, ninth and tenth auxiliary requests were held not to meet the requirements of Art. 123(2) EPC due to the various defined combinations of compounds (B) and (D) which were not supported by the originally filed documents and further due to the definition of compound (D).

(d) Accordingly the patent was revoked.

IV. A notice of appeal against the decision was filed by the patent proprietor on 28 December 2006, the prescribed fee being paid on the same day.

V. The statement of grounds of appeal was filed on 12 March 2007, accompanied by twenty sets of claims forming a first to a 20th auxiliary request. The first to tenth auxiliary requests were identical with those filed with the aforementioned letter of 21 December 2004 and underlying the decision under appeal. According to the appellant, the claims of the 11th to 20th auxiliary requests were identical to the claims of the first to tenth auxiliary requests respectively except for the definition of component D, which was restricted to organoaluminium compounds of a specific formula and required *inter alia* the presence of at least one branched alkyl group having at least three carbon atoms.

The respective claims 1 of the first, second, third fourth and fifth auxiliary requests, and of the corresponding 11th-15th auxiliary requests employed claim formulations incorporating various forms of disclaimer, while the remaining requests, i.e. the sixth to tenth and 16th-20th auxiliary requests defined the subject matter in terms of positive features.

(a) As the main request, reimbursement of the appeal fee was requested, it being submitted that the decision suffered from a substantial procedural violation.



(b) Submissions were made with respect to the allowability of the auxiliary requests, in particular with respect to the formulation of the disclaimers present in the claims of the first, second, third, fourth, and fifth auxiliary and 11th-15th auxiliary requests.

(c) The respective claims 1 of the fifth and 15th auxiliary requests incorporated the following wording as a disclaimer in the definition of Compound (A):

"with the exception of a halogenated metallocene compound"

which disclaimer had been held by the opposition division to be "much too broad" (see section III.(c).(iii) above).

In respect of this request the appellant made submissions in view of the findings of the aforementioned G 1/03. In particular the wording of Headnotes II.2 and II.4 of G 1/03 was contrasted.

It was submitted that although Headnote II.2 stated:

*"A disclaimer should not remove more than is necessary either to restore novelty or to disclaim subject-matter excluded from patentability for non-technical reasons",*

it could be concluded from the different wording of Headnote II.4:

*"a claim containing a disclaimer must..."* (emphasis in both cases of the appellant)

that the stipulations of Headnote II.2 were not a "must-provision" but left it to the discretion of

the deciding instance whether the disclaimer was admissible or not.

It was submitted in particular that G 1/03 did not require that a disclaimer disclaim exactly the scope of the claims which would, according to the appellant, be unfeasible but that only one feature of the prior art needed to be disclaimed, which view was consistent with the wording of Headnote II.2.

It was further submitted that it followed from the second paragraph of part 3 of the reasons of G 1/03 that it was not even required that the disclaimer be directly and unambiguously derived from the anticipation - the essential point being whether the disclaimer fulfilled its function, i.e. to exclude a novelty-destroying disclosure:

*"However the only justification for the disclaimer is to exclude a novelty-destroying disclosure or subject-matter not eligible for patent protection."*

The appellant also noted that G 1/03 stated that: *"...the necessity for a disclaimer is not an opportunity for the applicant to reshape his claims arbitrarily."* and submitted in this respect that the function of the disclaimer in claim 1 of the fifth auxiliary request was not to reshape the claim arbitrarily but served only to exclude the disclosure of D1.

VI. The respondent OI made submissions in a letter dated 25 July 2007 in which objections pursuant to Art. 84 and 123(2) EPC were raised in respect of the claims of the first to fourth and 11th to 14th auxiliary requests, in particular in view of the disclaimers employed,

reference being made to the findings of G 1/03. In particular the respondent submitted that the disclaimer of claim 1 of the indicated requests was not admissible according to the aforementioned Headnote II.2 of G 1/03 as the disclaimer excluded more than was necessary to establish novelty with respect to the disclosure of D1. Further, objections pursuant to Art. 123(2) EPC were raised against the definition of Component (D) of the 11th to 20th auxiliary requests.

VII. On 25 February 2009 the Board issued a summons to attend oral proceedings.

The summons was accompanied by a communication setting out the preliminary, provisional view of the Board.

(a) With regard to the scope of the appeal proceedings, the Board stated that, in view of the decision under appeal and the submissions made by the parties, the appeal proceedings would initially be restricted to consideration of the formal allowability of the claims (Art. 84 and 123(2) EPC and R. 80 EPC 2000) and to consideration of the request for reimbursement of the appeal fee.

(b) With regard to the main request, i.e. the request for the refund of the appeal fee, the Board indicated that in its preliminary, provisional opinion the decision under appeal had been taken in a procedurally unexceptionable manner and hence that it was unlikely that the request for reimbursement of the appeal fee would be complied with. In particular, in connection with the findings of the decision with respect to the disclaimer in claim 1 of the first auxiliary

request the finding of the opposition division had been that the **claims** of this request violated the requirements of Art. 84 EPC. Clearly, therefore the comments made in relation to the disclaimer had to be understood as applying to the disclaimer in relation to the remainder of the claim.

- (c) With respect to the first auxiliary request the Board noted that due to the amended definition of the organoaluminium compound in the claims of the first-twentieth auxiliary requests (see sections III.(b) and V above), only example 13 of D1 remained relevant.

The Board however noted that the disclaimer present in claim 1 of the first auxiliary request was not directed to the subject matter of said example 13 of D1, held by the opposition division to anticipate the subject matter of claim 1 as granted (see section III.(c).(i) above), but employed the terms of claim 1 of D1.

- (i) Concerning the interpretation of G 1/03, the Board considered that the wording in particular of the final part of section 3, second paragraph of the reasons thereof:

*"The necessity for a disclaimer is not an opportunity for the applicant to reshape his claims arbitrarily. Therefore the disclaimer should not remove more than is necessary to restore novelty or to disclaim subject-matter excluded from patentability for non-technical reasons"*

clarified that a disclaimer was for the sole

purpose of excising subject-matter which could not be claimed. The consequence was that the disclaimer had to be formulated as precisely as possible with respect to such subject-matter.

Since the disclaimer in the first auxiliary request had not been formulated to take account of this requirement it did not meet the requirements of Art. 123(2) EPC.

- (ii) The Board also noted that according to G 1/03, part 3 of the reasons, the requirements of conciseness and clarity following from Art 84 EPC were also applicable to claims containing disclaimers. Accordingly a disclaimer would not be allowable if the necessary limitation could be expressed in simpler terms in positive, originally disclosed features in accordance with R. 29(1) EPC 1973, 1st sentence (R. 43 EPC 2000).
  
- (d) The considerations set out in section VII.(c).(i) applied also to claim 1 of the fifth auxiliary request.
  
- (e) Regarding the definition of the organoaluminium compound (D), held in the decision under appeal not to meet the requirements of Art. 123(2) EPC (see section III.(c).(ii)-(iv) above) the Board noted that the wording in question was to be found *verbatim* in claim 5 of the application as filed and of the patent as granted. Of the two alternatives explicitly disclosed in said original claim 5, one had now been excised (aluminoxanes).

It was thus held that the definition of compound (D) did not result in an extension of subject matter compared to the application as originally filed.

- (f) Observations were also made with respect to the second to tenth (and corresponding 12th to 20th) auxiliary requests, which observations are however not of relevance for this decision.

VIII. In a letter dated 30 March 2009 respondent OII announced that it did not intend to attend the oral proceedings.

IX. In a letter dated 7 April 2009 the appellant submitted sets of claims forming a main and first to 11th auxiliary requests, replacing all previous requests on file.

- (a) The former main request for reimbursement of the appeal fee was withdrawn.
- (b) The main request consisted of 5 claims, claims 1 and 4 of which were directed to a process for polymerising an olefin and an olefin polymerisation catalyst respectively. The appellant submitted that claim 1 of this request corresponded to claim 1 of the former first auxiliary request except for the formulation of the disclaimer. Claim 1 of the main request thus read as follows:

1. A process for polymerizing an olefin which employs a catalyst comprising as main components the following compounds (A) and (B):

(A) a transition metal compound containing a transition metal selected from the IVB Group of the Periodic Table

and

(B) a compound capable of forming an ionic complex when reacted with a transition metal compound (A),

wherein said compound (B) is a compound comprising a cation containing an element selected from the groups of IIIB, VB, VIB, VIIB, VIII, IA, IB, IIA, IIB, IVA and VIIA of the Periodic Table and an anion wherein a plurality of covalently coordinated groups are connected to an element selected from the groups of VB, VIB, VIIB, VIII, IB, IIB, IIIA, IVA and VA of the Periodic Table.

both compounds (A) and (B) being carried on a carrier (C),

and wherein an organoaluminium compound (D) containing at least one branched alkyl group having at least three carbon atoms is used in addition to said compounds.

with the exception of a method using a catalyst comprising:  
anhydrous magnesium chloride,  
triphenylmethanetetra(pentafluorophenyl)boron,  
isopropyl(cyclopentadienyl-1-fluorenyl)zirconium dichloride and  
triisobutylaluminum.

It was submitted that the wording of the disclaimer had been directed specifically to Example 13 of D1. This disclaimer was considered to be appropriate since it disclaimed the specific combination of components corresponding to features (A) to (D) in accordance with the claim which had been disclosed in example 13 of D1. With respect to G 1/03 it was submitted that the wording employed therein, (referred to in the statement of grounds of appeal - see section V.(c) above) that "*a disclaimer should not remove more than is necessary...*" did not give absolutely clear guidance on how a disclaimer was to be formulated

in a given situation. It was however submitted that the proposed disclaimer did not serve to "reshape claim 1 arbitrarily" (see section V.(c) above).

- (c) The first auxiliary request consisted of 7 claims and corresponded to the former sixth auxiliary request (see section III.(c) above). Claim 1 of this request was directed to a process for polymerising an olefin and defined the subject matter thereof in terms of positive features, in particular by reciting specific embodiments of compound (B) and read as follows:

1. A process for polymerizing an olefin which employs a catalyst comprising as main components the following compounds (A) and (B):

(A) a transition metal compound containing a transition metal selected from the IVB Group of the Periodic Table

and

(B) a compound capable of forming an ionic complex when reacted with a transition metal compound (A),

wherein said compound (B) is selected from the group consisting of:

Triethylammonium tetraphenylborate, Tri(n-butyl)ammonium tetraphenylborate, Trimethylammonium tetraphenylborate, Tetraethylammonium tetraphenylborate, Methyltri(n-butyl)ammonium tetraphenylborate, Benzyltri(n-butyl)ammonium tetraphenylborate, Dimethyldiphenylammonium tetraphenylborate, Methyltriphenylammonium tetraphenylborate, Trimethylanilinium tetraphenylborate, Methylpyridinium tetraphenylborate, Benzylpyridinium tetraphenylborate, Methyl(2-cyanopyridinium) tetraphenylborate, Trimethylsulfonium tetraphenylborate, Benzyltrimethylsulfonium tetraphenylborate, Triethylammonium tetrakis(pentafluorophenyl)borate, Tri(n-butyl)ammonium tetrakis(pentafluorophenyl)borate, Triphenylammonium tetrakis(pentafluorophenyl)borate, Tetrabutylammonium tetrakis(pentafluorophenyl)borate, Tetraethylammonium tetrakis(pentafluorophenyl)borate, Methyltri(n-butyl)ammonium tetrakis(pentafluorophenyl)borate.



Benzyltri(n-butyl)ammonium tetrakis(pentafluorophenyl)borate,  
Methyldiphenylammonium tetrakis(pentafluorophenyl)borate,  
Methyltriphenylammonium tetrakis(pentafluorophenyl)borate,  
Dimethyldiphenylammonium tetrakis(pentafluorophenyl)borate,  
Anilinium tetrakis(pentafluorophenyl)borate,  
Methylanilinium tetrakis(pentafluorophenyl)borate,  
Dimethylanilinium tetrakis(pentafluorophenyl)borate,  
Trimethylanilinium tetrakis(pentafluorophenyl)borate,  
Dimethyl(m-nitroanilinium) tetrakis(pentafluorophenyl)borate,  
Dimethyl(p-bromoanilinium) tetrakis(pentafluorophenyl)borate,  
Pyridinium tetrakis(pentafluorophenyl)borate,  
P-cyanopyridinium tetrakis(pentafluorophenyl)borate,  
N-methylpyridinium tetrakis(pentafluorophenyl)borate,  
N-benzylpyridinium tetrakis(pentafluorophenyl)borate,  
O-cyano-N-methylpyridinium tetrakis(pentafluorophenyl)borate,  
P-cyano-N-methylpyridinium tetrakis(pentafluorophenyl)borate,  
P-cyano-N-benzylpyridinium tetrakis(pentafluorophenyl)borate,  
Trimethylsulfonium tetrakis(pentafluorophenyl)borate,  
Benzyltrimethylsulfonium tetrakis(pentafluorophenyl)borate,  
Tetraphenylphosphonium tetrakis(pentafluorophenyl)borate,  
Triphenylphosphonium tetrakis(pentafluorophenyl)borate,  
Dimethylanilinium tetrakis(3,5-difluoromethylphenyl)borate,  
Hexafluoroarsenic acid triethylammonium,  
Ferrocenium tetraphenylborate, Silver tetraphenyl borate,  
Trityl tetraphenylborate, Tetraphenylporphyrin manganese  
tetraphenylborate, Ferrocenium tetrakis(pentafluorophenyl)borate,  
1,1'-Dimethylferrocenium tetrakis(pentafluorophenyl)borate,  
Decamethylferrocenium tetrakis(pentafluorophenyl)borate,  
Acetylferrocenium tetrakis(pentafluorophenyl)borate,  
Formylferrocenium tetrakis(pentafluorophenyl)borate,  
Cyanoferrocenium tetrakis(pentafluorophenyl)borate,  
Silver tetrakis(pentafluorophenyl)borate,

Lithium tetrakis(pentafluorophenyl)borate,  
Sodium tetrakis(pentafluorophenyl)borate,  
Tetraphenylporphyrin manganese tetra(pentafluorophenyl)borate,  
Tetrakis(pentafluorophenyl)boric acid (tetraphenylporphyrin iron  
chloride),  
Tetrakis(pentafluorophenyl)boric acid (tetraphenylporphyrin zinc),  
Tetrafluorosilver borate, Hexafluoroarsenical silver and Hexafluorosilver  
antimonite,

both compounds (A) and (B) being carried on a carrier (C),

and wherein an organoaluminium compound (D) containing at least  
one branched alkyl group having at least three carbon atoms is used  
in addition to said compounds.

Claims 2 and 3 of the first auxiliary request were

independent claims directed to processes for polymerising an olefin, whereby claim 2 read as follows:

2. A process for polymerizing an olefin which employs a catalyst comprising as main components the following compounds (A) and (B):

(A) a transition metal compound containing a transition metal selected from the IVB Group of the Periodic Table

and

(B) a compound capable of forming an ionic complex when reacted with a transition metal compound (A),

wherein said compound (B) is a compound comprising a cation containing an element selected from the groups of IIIB, VB, VIB, VIIB, VIII, IA, IB, IIA, IIB, IVA and VIIA of the Periodic Table and an anion wherein a plurality of covalently coordinated groups are connected to an element selected from the groups of VB, VIB, VIIB, VIII, IB, IIB, IIIA,

IVA and VA of the Periodic Table,

both compounds (A) and (B) being carried on a carrier (C),

and wherein triisobutyl aluminum is used during the polymerisation.

Claims 4 and 5 were dependent claims, directed to preferred embodiments of the process of claims 1, 2 or 3 and 2, 3 or 4 respectively.

Claim 6 was an independent claim, directed to an olefin polymerisation catalyst and claim 7 was a dependent claim directed to a preferred embodiment of the catalyst of claim 6.

- (d) The second auxiliary request, consisting of 6 claims, differed from the first auxiliary request in that independent claim 3 thereof had been deleted and the following claims correspondingly renumbered. Accordingly claim 2 of the second

auxiliary request was identical to claim 2 of the first auxiliary request (see above).

- (e) The third auxiliary request consisted of 5 claims whereby claim 1 was identical to claim 1 of the first auxiliary request (see section IX.(c) above). Claim 4 was an independent claim and read as follows:

4. An olefin polymerization catalyst comprising as main components the following compounds (A) and (B):

(A) a transition metal compound represented by the following formula (IV):



wherein

M<sup>1</sup> is a Ti, Zr or Hf atom;

R<sup>1</sup>a, R<sup>2</sup>b, R<sup>3</sup>c and R<sup>4</sup>d may be the same as or different from each other and are independently a ligand having a sigma bond, a chelate ligand or a Lewis base; and

a, b, c and d are independently an integer of 0 to 4.

and

(B) a compound capable of forming an ionic complex when reacted with a transition metal compound (A),

wherein said compound (B) is a compound comprising a cation containing an element selected from the groups of IIIB, VB, VIB, VIIB, VIII, IA, IB, IIA, IIB, IVA and VIIA of the Periodic Table and an anion wherein a plurality of covalently coordinated groups are connected to an element selected from the groups of VB, VIB, VIIB, VIII, IB, IIB, IIIA, IVA and VA of the Periodic Table,

both compounds (A) and (B) being carried on a carrier (C),

and wherein an organoaluminium compound (D) containing at least one branched alkyl group having at least three carbon atoms is used in addition to said compounds.

Claims 2 and 3 and claim 5 were dependent claims directed to preferred embodiments of the subject matter of claims 1 and 4 respectively.

(f) The claims of the fourth to 11th auxiliary requests are not of relevance for the present decision.

X. By letter received on 30 April 2009 the respondent OI stated that it would not attend the oral proceedings. It was requested that in the case that one of the requests be found admissible according to Art. 84 and 123 EPC the case be remitted to the first instance.

XI. Oral proceedings were held on 7 May 2009 attended only by the appellant.

(a) With respect to the main request the Board observed that whilst the disclaimer in claim 1 thereof was narrower than those presented in previous sets of claims the terms thereof were still broader than the novelty destroying disclosure of Example 13 of D1.

The appellant submitted that the disclaimer could be drafted to be even narrower. The appellant however submitted that it was uncertain regarding what extent of disclaimer would be considered to be sufficiently narrow.

The appellant further emphasised that the disclaimer was directed to a method employing as a catalyst a combination of the 4 components specified in example 13 of D1 (see also section IX.(b) above) and that it was not apparent how this disclaimer could be drafted more narrowly without affecting clarity or conciseness.

It was further submitted that there was a certain "range" of scope or extent within which a disclaimer had to be drafted and that it was not

known where with respect to this "range" the border between admissibility and inadmissibility of a disclaimer lay. It was observed that there was no case law giving any guidance on the formulation of disclaimers beyond that given in G 1/03.

It was emphasised that the disclaimer present in claim 1 of the main request precisely specified the components of the catalyst of example 13 of D1 and did not remove more than was necessary to establish novelty with respect to that disclosure. It was acknowledged that there was nevertheless a gap between the terms of the disclaimer and the precise process disclosed in D1, e.g. the proportions of components employed and the specific method steps executed were not specified in the disclaimer. The appellant submitted that it was uncertain as to whether this level of detail was required for the disclaimer to be admissible.

It was further submitted that the disclaimer had no influence on the other prior art cited in the proceedings.

It was also submitted that a number of features did not in fact need to be disclaimed and that the appellant would derive no advantage from disclaiming such features compared to the current formulation of the disclaimer.

- (b) With respect to the first auxiliary request the Board directed attention to the final feature claim 2 thereof (see section IX.(c) above), i.e. the wording:

"and wherein triisobutyl aluminium is used during

the polymerisation".

No explicit basis for this could be found in the application as filed.

It was further observed by the Board that a similar phrase had been introduced into an earlier set of claims and had been objected to pursuant to Art. 84 EPC by the opposition division in its communication of 18 September 2000 as being superfluous.

The appellant submitted that the essential point was whether Compound (D) was present during the preparation of the catalyst or only during the polymerisation stage - this was an important technical difference. This wording was to be understood in that Compound (D) was brought into contact with the catalyst during the polymerisation, i.e. that olefins were present. Alternatively, it could be added to the catalyst prior to introduction of the olefins. Thus the crucial difference was whether the olefins were present or not. The examples showed both possibilities, i.e. addition during catalyst preparation and addition at the polymerisation stage.

These considerations were acknowledged by the appellant to apply also to the second auxiliary request. Consequently no further submissions with respect to the second auxiliary request were made.

- (c) With regard to the third auxiliary request the Board observed that it had no objections pursuant to Art. 84 or 123(2) EPC.

Attention was however drawn to a defect pursuant to R.80 EPC. In claim 5 of this request R<sup>7</sup> was

defined as being "a C<sub>1-20</sub> alkyl group, aryl group...". The corresponding disclosure in claim 8 of the patent as granted however specified R<sup>7</sup> as being a "C<sub>1-20</sub> alkyl group, C<sub>6-20</sub> aryl group..." (emphasis of the Board).

The Appellant indicated that it was prepared to address this defect and duly submitted a revised set of claims designated "New Third Auxiliary Request", replacing the set of claims designated "Third Auxiliary Request" submitted with the letter of 7 April 2009.

XII. The appellant requested that the decision under appeal be set aside and that the case be remitted to the first instance for further prosecution on the basis of the main request, filed with letter dated 7 April 2009, or in the alternative, on the basis of one of the first or second auxiliary requests, filed on the same date, or the new third auxiliary request, filed at the oral proceedings, or one of the fourth to eleventh auxiliary requests, filed with letter dated 7 April 2009.

The respondents requested (in the written proceedings) that the appeal be dismissed.

Respondent OI further requested, in the case that one of the requests be found admissible according to Art. 84 and 123 EPC, that the case be remitted to the first instance.

## **Reasons for the Decision**

1. The appeal is admissible.

2. *Main request*

As explained in section IX.(b) above, claim 1 of the main request employs a disclaimer. This disclaimer was introduced in view of an objection of lack of novelty of the subject matter of claim 1 of the patent as granted in view of the disclosure of Examples 6 and 13 of D1, of which however only example 13 remains relevant (see sections II, III, VII.(c) and IX.(b) above).

2.1 The allowability of disclaimers and the situations in which they may be employed under Art. 123(2) EPC are considered in part 2 of the reasons of the above cited decision of the Enlarged Board of Appeal, i.e. G 1/03.

2.2 In the final paragraph of this part of the reasons, namely 2.6.5 it is concluded that a disclaimer may serve exclusively the purpose for which it is intended and nothing more. Thus, it is explained, that in the case of a disclaimer concerning conflicting applications, its purpose is to establish novelty with respect to a prior application in the sense of Art. 54(3) EPC.

The final sentence of paragraph 2.6.5 of the reasons of G 1/03 concludes that if a disclaimer has effects which go beyond its purpose, it is or becomes inadmissible.

2.3 In part 3 of the reasons of G 1/03, entitled "The drafting of disclaimers", it is held, with reference to the purpose of disclaimers in particular with respect to the exclusion of a novelty destroying disclosure that:

*"The necessity for a disclaimer is not an opportunity*



*for the applicant to reshape his claims arbitrarily. Therefore the disclaimer should not remove more than is necessary to restore novelty or to disclaim subject matter excluded from patentability for non-technical reasons".* The second sentence of this passage is reproduced in Headnote 2.2, to which reference was made by the appellant in the statement of grounds of appeal (see section V.(c) above).

2.4 These findings of G 1/03, when read in their correct context, therefore express a requirement and not merely a desideratum. In particular it cannot be derived from this part of the reasoning of G 1/03 - as the appellant argued in writing (see section V.(c) above) and orally (see section XI.(a) above) - that a patent proprietor is permitted a degree of discretion or latitude concerning the "border" within which the disclaimer should be drafted with respect to the subject matter to be excised. On the contrary, the existence of any discretion regarding the extent of the disclaimer as compared to the subject-matter to be excluded would inevitably introduce a degree of arbitrariness in the drafting of the disclaimer. This would however conflict with the express findings of G 1/03 as explained above.

2.5 It is therefore concluded that in order to comply with the requirements following from G 1/03 with respect to the drafting of disclaimers it is necessary that these be formulated to excise only that subject-matter which cannot be claimed, e.g. in the present case the disclosure of an example of the prior art.

2.6 The disclaimer in claim 1 of the main request excludes a method using a catalyst comprising four named

components (see section IX.(b) above).

These are the components specified in example 13 of D1 - that is not in dispute.

However the disclaimer omits a number of other features of the relevant disclosure, for example:

- The monomer that is polymerised (propylene);
- The disclosed quantities of the stated catalyst components;
- The manner in which the catalyst is prepared.

2.7 The disclaimer is therefore broader in scope than the novelty-destroying disclosure. Thus whilst the disclaimer does serve the purpose of excluding the process disclosed in example 13 of D1 from the scope of claim 1 of the main request the extent thereof goes beyond the terms of said disclosure.

Accordingly the disclaimer excludes more than is necessary to restore novelty with respect to the disclosure of D1, contrary to the findings of G 1/03.

2.8 The consequence of this is that the broad disclaimer, in addition to restoring novelty compared to the disclosure of D1, example 13 would have the further effect of "immunising" the subject matter claimed against a potential attack of lack of novelty in view of other prior art - as yet unknown - disclosing subject matter lying between that disclosed in example 13 of D1 and the scope or "border" of the disclaimer. This demonstrates that the submission of the patent proprietor at the oral proceedings that it "would derive no advantage" from not disclaiming the further features (of the disclosure of D1) is not necessarily and inevitably correct. On the contrary, a broader scope of the disclaimer, i.e. excluding more

than the novelty destroying disclosure of D1, would potentially give the patent proprietor an advantage later on since as yet unknown prior art might then no longer be citable against the amended claim.

2.9 The conclusion is therefore that the disclaimer in claim 1 of the main request has effects going beyond the purpose of excluding the subject-matter of example 13 of D1. Accordingly this disclaimer does not meet the requirements following from point 2.2 of the Order of G 1/03 in association with section 3 of the reasons thereof and thus is not allowable.

2.10 The main request is therefore refused under Art. 123(2) EPC.

3. *First auxiliary request*

Claim 2 of the first auxiliary request contains as the final feature:

"and wherein triisobutyl aluminium is used during the polymerisation".

3.1 Triisobutyl aluminium is explicitly mentioned at page 10, line 34 of the A-publication as an example of an organoaluminium compound (D).

3.2 At page 11 lines 19-21 it is furthermore disclosed that:  
*"In addition, Component (D) may be contacted with the catalyst of the present invention for use in polymerization. The contact of Component (D) and the catalyst can be effected before the polymerization or during the polymerization"*.

- 3.3 This passage however does not disclose in general terms that the Component (D) is to be in some general manner "used" during the polymerisation but discloses specifically that Component (D) be "contacted" with the catalyst. Thus the disclosure of the application as filed is that Component (D) is to be "used" in a specific manner. This feature, i.e. the nature of the "use" is however not specified in claim 2 of the first auxiliary request, which is therefore broader in scope than the indicated part of the description.
- 3.4 The disclosure at page 10 lines 21-24 of the A-publication is that the olefin polymerisation of the present invention can be carried out "using an organoaluminum compound (D) together with the above-mentioned polymerization catalyst" (emphasis of the Board). This passage thus discloses the "use" of Compound (D) (as it is referred to here rather than as "Component (D)") "together" with the polymerisation catalyst. The restriction to the use being "together" with the polymerisation catalyst is however absent from claim 2 of the first auxiliary request. Accordingly this passage of the description also cannot provide a basis for this feature.
- 3.5 Hence it is concluded that the feature that triisobutyl aluminium is in some general, non-limiting manner "used" during the polymerisation is not disclosed in the application as filed contrary to the requirements of Art. 123(2) EPC.
- 3.6 Notwithstanding the foregoing, the phrase introduced into the claim also gives rise to a lack of clarity. Claim 2 is directed according to its preamble to a

"Process for polymerizing an olefin", i.e. the entire process is a "polymerisation". Thus to specify that triisobutyl aluminium is used "during the polymerisation" creates an uncertainty or ambiguity as to whether some extra details are lacking, i.e. whether this should be used at some particular point in the "Process for polymerizing", and how it should be "used". The submission of the appellant at the oral proceedings (see section XI.(b) above) according to which this is to be understood as meaning that monomer (olefin) is present has no basis in the application as filed and hence cannot serve to remedy this ambiguity.

If on the other hand this feature is intended to refer to the above-mentioned passage at page 11 lines 19-21 according to which the Compound (D), i.e. triisobutyl aluminium is contacted with the catalyst (either before or during the polymerisation) then the question is whether triisobutyl aluminium would in some manner react with the catalyst, forming a different chemical species. The consequence of this would be that triisobutyl aluminium would no longer be present during the polymerisation and hence would not be available to be "used" during the polymerisation. Under these circumstances, the claim would not define the process for which protection is sought, contrary to Art. 84 EPC.

3.7 It is therefore concluded that due to the noted defects in claim 2 the first auxiliary request does not meet the requirements of Art. 84 and 123(2) EPC.

3.8 The first auxiliary request is therefore refused.

4. *Second auxiliary request*

Claim 2 of the second auxiliary request is identical to claim 2 of the first auxiliary request and therefore suffers from the same defects (Art. 84 and 123(2) EPC).

The second auxiliary request is therefore refused.

5. *(New) Third auxiliary request*

This request was submitted during the oral proceedings before the Board- see section XI.(c) above.

5.1 *Art 123(2) EPC*

The features of claim 1 are disclosed in the application as filed (reference being made to the A-publication) as follows:

- Claim 1;
- The feature that Compound (B) is capable of forming an ionic complex when reacted with a transition metal compound (A) at page 6 line 10;
- The list of permissible compounds for compound (B) at page 7 line 10 to page 8 line 8;
- The feature "both compounds (A) and (B) being carried on a carrier (C)" at page 8 lines 45 and 46; and
- The definition of organoaluminium compound (D) at original claim 5 and page 10 lines 21-23. The feature that this is used "in addition" to the catalyst is disclosed by the wording "using an organoaluminium compound (D) together with the above mentioned polymerization catalyst" at page 10 lines 22-23 (emphasis of the Board).

According to the decision under appeal the definition of component (D), in the claims of all the requests then under consideration contravened the requirements of Art. 123(2) EPC (see section III.(c).(ii) above).

This objection related to the feature that Compound D was a compound:

*"containing at least one branched alkyl group having at least three carbon atoms"*.

The reason given in the decision under appeal was that according to page 10 line 25 to page 11 line 4 of the A-publication this definition did not apply to aluminoxanes. Although not explicitly stated in the decision, it is implicit that the opposition division was of the view that this definition now - inadmissibly - did extend to aluminoxanes.

Claim 5 as originally filed read as follows:

"A process according to Claim 1, 2, 3 or 4 wherein Organoaluminum Compound (D) is an aluminum compound containing at least one branched alkyl group having at least three carbon atoms or aluminoxanes".

The preamble of this claim relates to organoaluminium compounds, and further specifies the substituent pattern of compounds of this class. Aluminoxanes, mentioned in the final part of the claim, contain both aluminium and organic groups and thus are a member within the class of compounds specified in the preamble of the claim, namely "organoaluminum compounds". This conclusion is not affected by the presence of the term "or" in the claim, indicating an alternative.

There is no disclosure in original claim 5 or in the corresponding parts of the description as originally filed from which it may be deduced that aluminoxanes were not to be considered as representatives of "organoaluminum compounds", or, in the case of Compound (D) being an aluminoxane, that it was not permitted to bear the substituents as now specified in claim 1 of the third auxiliary request.

Accordingly the specification of Compound (D) in claim 1 of the third auxiliary request does not extend beyond the content of the application as filed. The wording of this feature of claim 1 is identical to the corresponding wording of claims 1 and 5 as granted. Accordingly, the requirements of Art. 123(3) EPC are also satisfied in respect of this feature.

Claim 2 of the third auxiliary request corresponds to claim 2 as originally filed.

Claim 3 of the third auxiliary request corresponds to claim 4 as originally filed

The features of claim 4 are derived from claims 6, 1 and 7 as originally filed. The final features of this claim, i.e. that both compounds (A) and (B) are carried on a carrier (C) and the definition of compound (D) are identical to the corresponding features of claim 1.

Claim 5 corresponds to claim 8 as originally filed.



Accordingly the third auxiliary request meets the requirements of Art 123(2) EPC.

5.2 *Art. 84 EPC*

The Board is satisfied that the claims of the third auxiliary request meet the requirements of Art. 84 EPC.

5.3 The claims of the third auxiliary request therefore meet the requirements of Art. 84 and 123(2) EPC. Under these circumstances, and in accordance with the requests of the appellant and the respondent OI (see section XII above) the appropriate course of action is 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 to the first instance for further prosecution on the basis of the new third auxiliary request (claims 1 to 5) filed at the oral proceedings.

The Registrar:

The Chairman:

E. Görgmaier

R. Young