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# Datasheet for the decision of 8 February 2023

Case Number: T 1548/20 - 3.3.03

14825947.6 Application Number:

Publication Number: 3023439

C08F2/00, C08F4/48, C08F36/04, IPC:

C08F2/06, C08F212/08

Language of the proceedings: ΕN

Title of invention:

METHOD FOR PRODUCING POLYMER

Patent Proprietor:

Asahi Kasei Kabushiki Kaisha

Opponent:

Maiwald GmbH

Relevant legal provisions:

EPC Art. 56

Keyword:

Inventive step - (all requests: no)

Decisions cited:

T 0939/92



# Beschwerdekammern Boards of Appeal

Chambres de recours

Boards of Appeal of the European Patent Office Richard-Reitzner-Allee 8 85540 Haar GERMANY

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Case Number: T 1548/20 - 3.3.03

D E C I S I O N
of Technical Board of Appeal 3.3.03
of 8 February 2023

Appellant: Maiwald GmbH Elisenhof

Elisenstraße 3 80335 München (DE)

Representative: Maiwald GmbH

Elisenhof Elisenstraße 3 80335 München (DE)

Respondent: Asahi Kasei Kabushiki Kaisha

(Patent Proprietor) 1-105 Kanda Jinbocho

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Tokyo

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Representative: Strehl Schübel-Hopf & Partner

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Decision under appeal: Decision of the Opposition Division of the

European Patent Office posted on 11 May 2020 rejecting the opposition filed against European patent No. 3023439 pursuant to Article 101(2)

EPC.

#### Composition of the Board:

Chairman D. Semino Members: O. Dury

R. Cramer

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### Summary of Facts and Submissions

- I. The appeal of the opponent lies from the decision of the opposition division rejecting the opposition filed against European patent No. 3 023 439.
- II. The following documents were, among others, cited in the decision under appeal:

D5: US 4 587 314 D14: EP 3 023 440

- III. According to the decision under appeal, the subjectmatter of the claims as granted was held, among others, to involve an inventive step when document D5 was taken as the closest prior art.
- IV. The opponent (appellant) lodged an appeal against that decision.
- V. With their rejoinder to the statement of grounds of appeal, the patent proprietor (respondent) filed, among others, two sets of claims as auxiliary requests 5 and 6.
- VI. The parties were summoned to oral proceedings and a communication indicating specific issues to be discussed at the oral proceedings was then sent to the parties.
- VII. During the oral proceedings, which were held on 8 February 2023 in the presence of both parties (via videoconference), the respondent withdrew several auxiliary requests which had been filed with their

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rejoinder to the statement of grounds of appeal (minutes: page 2, third full paragraph).

#### VIII. The final requests of the parties were as follows:

- (a) The appellant requested that the decision under appeal be set aside and that the patent be revoked.
- (b) The respondent requested that the appeal be dismissed (main request) or, in the alternative, that the patent be maintained in amended form according to one of auxiliary requests 5 or 6 filed with the rejoinder to the statement of grounds of appeal.
- IX. Claim 1 of the **main request** (patent as granted) read as follows:
  - "1. A method for producing a polymer, comprising step (1) of continuously feeding a monomer comprising a conjugated diene compound and/or an aromatic vinyl compound to a polymerization tank, and
  - step (2) of continuously feeding a solution comprising an organolithium compound to the polymerization tank, wherein a linear velocity of the solution comprising the organolithium compound at an opening of a feed port in step (2) is 0.1 to 5 m/sec,

wherein the inner diameter of the pipe of the feed port is 3 to 100 mm, and

wherein the position in the polymerization tank, at which the solution containing the organolithium compound is supplied is the bottom of the

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polymerization tank."

- X. Claim 1 of auxiliary request 5 differed from claim 1 of the main request in that the following feature was added at the end of the claim:
  - ", and wherein the solution comprising the organolithium compound fed to the polymerization tank has a concentration of the organolithium compound of 0.005 to 1% by mass".
- XI. Claim 1 of auxiliary request 6 differed from claim 1 of auxiliary request 5 in that the following feature was added at the end of the claim:
  - "and the monomer is fed to the polymerization tank in a state of a solution containing a solvent, wherein the concentration of the monomer in the solution containing the solvent is 10 to 50 % by mass".
- XII. The appellant's arguments, in so far as they are pertinent for the present decision, may be derived from the reasons for the decision below. They are essentially as follows: the subject-matter of claim 1 of each of the main request and auxiliary requests 5 and 6 did not involve an inventive step when document D5 was taken as the closest prior art.
- XIII. The respondent's arguments, in so far as they are pertinent for the present decision, may be derived from the reasons for the decision below. They are essentially as follows: the subject-matter of claim 1 of each of the main request and auxiliary requests 5 and 6 involved an inventive step when document D5 was taken as the closest prior art.

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#### Reasons for the Decision

#### Main request (patent as granted)

- 1. The appellant contested the decision of the opposition division regarding inventive step of the operative main request (patent as granted) when document D5 was taken as the closest prior art.
- 2. Article 56 EPC
- 2.1 Closest prior art and distinguishing feature(s)
- 2.1.1 Both parties agreed with the opposition division's finding that D5 was a suitable document to be taken as the closest prior art and that example 1 thereof was a particularly relevant starting point. The Board has no reason to deviate from that view.
- 2.1.2 It was also common ground that, as indicated in section 2.5.2 of the decision under appeal, the method for producing a polymer according to claim 1 as granted only differed from the method carried out in example 1 of D5 in the following features:
  - (a) The linear velocity of the solution comprising the organolithium compound at an opening of a feed port in step (2) should be 0.1 to 5 m/sec (whereby no information in that respect is explicitly disclosed in D5);
  - (b) The inner diameter of the pipe of the feed port for feeding the organolithium compound to the polymerization tank according to step (2) should be

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3 to 100 mm (whereby no information in that respect is disclosed in D5).

- 2.1.3 It is noted that although that view was adhered to by the respondent at an earlier stage of the proceedings (rejoinder to the statement of grounds of appeal: paragraph bridging pages 4 and 5), the respondent argued in writing at a later stage (letter of 23 December 2022: page 5, penultimate paragraph) that an additional difference was that D5 did not clearly disclose to supply the solution containing the organolithium compound to the bottom of the polymerization tank as was defined at the end of claim 1 as granted. However, that argument was not pursued during the oral proceedings before the Board (see minutes: page 2, first full paragraph, second sentence) and the Board sees no reason to deviate from the view of the opposition division that that feature does not distinguish the method being claimed from the one according to example 1 of D5 (point 2.5.2 of the reasons: end of the penultimate paragraph on page 7). Under these circumstances, the location at which the organolithium compound is fed to the reactor does not constitute a distinguishing feature.
- 2.2 Problem effectively solved over example 1 of D5
- 2.2.1 The respondent considered that the problem solved over example 1 of D5 resided in the provision of a method for producing a polymer which allowed to suppress the gel formation around a feed port of an organolithium compound as a polymerization initiator, prevented incorporation of gel into a product and ensured a good yield. The respondent further considered that examples 1-5 and comparative examples 1-2 of the patent in suit showed that said problem was indeed solved

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(rejoinder to the statement of grounds of appeal: page 5, second and third full paragraphs).

- 2.2.2 In that respect, the respondent disagreed with the conclusion of the opposition that the problem solved resided in the provision of a mere alternative method to the one of D5 (point 2.5.3 of the reasons: see in particular the last paragraph), which was reached considering that comparative example 2 of D14 showed that the effect relied upon by the respondent (reduction/suppression of gel formation around the feed port of the organolithium compound) was not achieved on the whole breadth of the claims. The main reasons put forward by the respondent in that respect were that:
  - Comparative example 2 of D14 did not disclose a method falling under the scope of claim 1 as granted (letter of 23 December 2022: page 4, section "Difference with respect to claim 1"; letter of 26 January 2023: page 2, last paragraph to page 4, last paragraph); and
  - Comparative example 2 of D14 did not show that the beneficial effect claimed by the respondent, namely the absence of gel adhesion around the initiator (organolithium compound) feed port, was not achieved (rejoinder: page 5, last paragraph and page 6, first paragraph; letter of 10 February 2022: section I.B.2).

These two issues are therefore addressed hereinafter.

Is the method disclosed in comparative example 2 of D14 a method according to claim 1 as granted?

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2.2.3 Regarding the evaluation of comparative example 2 of D14, the respondent argued that, since D14 was not a valid prior art document, that example should be read on its own (letter of 23 December 2022: page 2, lines 6-7).

However, although it was common ground that D14 did not constitute a valid prior art document in view of its publication date, the whole document, and in particular its experimental section, constitutes supplementary technical evidence, for which the Board sees no compelling reasons why the document, as a whole, could not be relied upon. Therefore, there are no reasons to read comparative example 2 of D14 on its own (i.e. on the sole basis of paragraph 89 of D14) or to disregard any passages of the description of D14 which may be held to be related to comparative example 2 of D14, contrary to the respondent's view.

2.2.4 The respondent argued that comparative example 2 of D14 was not according to claim 1 as granted because the term "solution" in granted claim 1 would be read by the skilled person as defining that a stream in the form of a composition comprising a homogeneously distributed organolithium compound was to be fed to the polymerisation tank (letter of 23 December 2022: page 4, section "Difference with respect to claim 1", first paragraph). Such a "solution" was in particular to be distinguished from the composition comprising an organolithium compound which was fed to the reactor in comparative example 2 of D14, which was a composition in which the organolithium compound was not well-mixed, i.e. not homogeneously distributed therein. That the organolithium compound was not well-mixed within the solvent/diluent (n-hexane) in comparative example 2 of D14 was derivable from the explicit indication that

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laminar flow was observed (D14: column 18, lines 37-38), as opposed to a turbulent flow (D14: paragraphs 45 and 46; see also example 1, column 16, lines 34-43 and figure 1 of D14).

- a) However, the Board considers that that argument is based on a reading of claim 1 as granted in a limited manner, which is not reflected by the wording of that claim. In particular, the Board cannot recognise any indication in claim 1 as granted imposing any specific degree of homogeneity regarding the distribution of the organolithium compound which is fed to the reactor, let alone that a homogeneous mixture thereof must be fed to the reactor. In particular, the wording "continuously feeding a solution comprising an organolithium compound" does not exclude that the organolithium compound can be fed to the reactor in the form of a mixed solution in a state of laminar flow as is done in comparative example 2 of D14.
- b) Such a reading of claim 1 as granted in a sense which is broader than the one contemplated by the respondent is further confirmed by the disclosure of paragraphs 37 and 38 of the patent in suit, in which it is specifically indicated that a feed of the organolithium compound which is in line with the method carried out in comparative example 2 of D14 is encompassed by the patent in suit, although it may not lead to an optimal mixing of the organolithium compound in the main solvent/diluent. Paragraph 38 of the patent in suit in particular is directed to a preferred embodiment of the invention, in which a device may be used to ensure an improved homogeneity of the composition comprising the organolithium compound that is fed to the reactor. In that respect, it is derivable from the teaching of D14 that the device mentioned in

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said paragraph 38 ensures that a turbulent flow (as opposed to a laminar flow) of the organolithium compound is fed to the reactor (D14: claim 1 and paragraphs 45-46, 49-50, 85), whereby D14 is a patent application in the name of the patent proprietor (and of the same inventor) that shares one common priority document with the patent in suit. This, in the Board's view, further supports the above finding that paragraphs 37 and 38 of the patent in suit are directed to the possibility of feeding the organolithium compound under laminar conditions as is done in comparative example 2 of D14.

During the oral proceedings before the Board, the respondent argued that paragraphs 37 and 38 were obviously not in line with the granted claims: according to the respondent, these paragraphs should have been deleted when the patent was granted as a consequence of the amendments that had been done to the claims during examination, which had unfortunately not been done. However, asked by the Chairman, it was not shown by the respondent that the amendments done in claim 1 as granted as compared to claim 1 as originally filed would have necessitated the deletion of paragraphs 37 and 38. The Board also sees no compelling reasons why such an amendment would have been necessary. Therefore, that argument is rejected.

c) In addition, in the method disclosed in comparative example 2 of D14, the organolithium compound is fed to the reactor in the form of a composition obtained by mixing a solution of the organolithium compound at a concentration of 20 wt.% in a solvent (cyclohexane; "primary" solvent) with another solvent (n-hexane; "main" solvent/diluent) under laminar conditions so as to adjust, i.e. decrease, the concentration of the

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organolithium compound in the composition which is eventually fed to the reactor (D14: paragraph 89 and figure 2). However, there is no disclosure in the patent specification supporting the respondent's argumentation that, should the composition comprising an organolithium compound be fed to the reactor under such conditions, then that composition had to be considered to be constituted of two separate compositions (organolithium compound in primary solvent vs. main solvent/diluent), whereby the linear velocity feature specified in claim 1 as granted characterised the organolithium compound in the primary solvent only (see letter of 26 January 2023: figure at the top of page 4; see also figures 1 and 2, example 1 and comparative example 2 of D14). Therefore, there is no reason to consider that the reading of claim 1 as granted contemplated by the respondent is even foreseen in the patent in suit and that claim 1 should be read in that sense.

- d) For these reasons, the respondent's arguments that the method carried out in comparative example 2 of D14 was not a method according to claim 1 as granted in view of the manner in which the organolithium compound was fed to the reactor did not convince.
- 2.2.5 The respondent further argued that comparative example 2 of D14 was not according to claim 1 as granted because the requirement in terms of linear velocity of the "solution comprising an organolithium compound" was not satisfied (respondent's letter of 26 January 2023: bottom of page 2 to end of page 4).
  - a) However, that line of defence is based on the reading of claim 1 addressed in section 2.2.4, first paragraph, above. Since such a reading of claim 1 is

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not shared by the Board, that argument cannot succeed.

- b) In that respect, it is further noted that the calculations presented by the respondent in support of their argumentation (letter of 26 January 2023: bottom of page 3 to middle of page 4) were contested by the appellant at the oral proceedings before the Board, whereby the appellant explained that a correct calculation led to a linear velocity of the solution considered by the respondent within the range defined in claim 1 as granted. However, since the respondent's argument in that respect is not decisive for the present decision, there is no need to address that issue here any further.
- 2.2.6 In view of the above, it is concluded that the wording of claim 1 as granted, read in its broadest, technically sensible sense, does not exclude that "a solution comprising an organolithium compound" mentioned therein is a mixed solution which is fed under laminar flow conditions as is done in comparative example 2 of D14. Therefore, comparative example 2 of D14 is a method according to claim 1 as granted, contrary to the respondent's view. In particular, the arguments put forward by the respondent in appeal provide no cause to overturn the decision of the opposition division in that regard, which was in fact at that stage not contested by the respondent (point 2.5.3 of the reasons: page 8, penultimate paragraph).

Does comparative example 2 of D14 disclose gel formation around the feed port of the organolithium compound?

2.2.7 Regarding the question whether comparative example 2 of D14 disclosed gel formation around the feed port of the

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organolithium compound, the opposition division had in the decision under appeal adhered to the appellant's argument that the indication in comparative example 2 in D14 that gel adhesion was observed "on the inner wall" of the reactor (D14: column 18, lines 41-42) rendered credible that the reduction of gel formation around a feed port relied upon by the patent proprietor was not achieved over the whole breadth of claim 1 as granted.

- a) The respondent disagreed with that conclusion of the opposition division and argued that the disclosure in D14 of gel formation on "the inner wall" in comparative example 2 thereof did not mandatorily mean that gel formation "around the feed port" effectively took place (rejoinder to the statement of grounds of appeal: page 5, last paragraph; letter of 10 February 2022: section I.B.2, in particular on page 3; letter of 23 December 2022: page 5, first three lines). Accordingly, the respondent considered that comparative example 2 of D14, even if it were to be considered to fall under the scope of claim 1 as granted, did not convincingly show that the effect of reduction/suppression of gel formation around the organolithium compound feed port was not achieved on the whole breadth of the claims.
- b) However, it is agreed with the appellant that it is explicitly indicated in D14 that the method disclosed therein leads to the suppression of gel formation around the initiator (organolithium compound) feed port (see the reference to paragraphs 66 and 94 of D14 in section 10 of their letter of 28 September 2022). Therefore, it is derivable from the disclosure of D14 as a whole that the indication in comparative example 2 thereof, i.e. an example not according to the teaching thereof, that gel adhesion was observed on the inner

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walls implies that gel formation around the feed port took place. In addition, as put forward by the appellant, it is not credible that gel formation took place in comparative example 2 of D14 on the inner walls but not around the feed port (appellant's letter of 28 September 2022: section 9). The Board further shares the appellant's view (letter of 28 September 2022: section 13) that the arguments of the respondent mentioned in section a) above are based on general unproven considerations (see the use of terms such as "generally", "tends to", "assume", "rather formed"). Also, as put forward by the appellant (letter of 28 September 2022: section 13), considering that D14 and the patent in suit are in the name of the same inventor, the respondent should have been in the position to demonstrate unambiguously that no gel formation occurred around the feed port of the organolithium compound in comparative example 2 of D14. However, no information in that regard was submitted.

- c) As already indicated in section 2.2.3 above, the Board in that respect considers that the whole content of D14 may be considered in order to interpret comparative example 2 of D14, contrary to the position of the respondent.
- d) Although the above considerations were indicated in the Board's communication (points 7.3.2.d-e), no further counter-arguments (apart from the one addressed in section 2.2.3 above) were submitted by the respondent. That line of defense was also not further pursued at the oral proceedings before the Board.
- e) In view of the above, the Board has no reason to deviate from the finding of the opposition division that comparative example 2 of D14 discloses that gel

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formation takes place around the feed port of the organolithium compound.

- 2.2.8 For these reasons, it is not justified for the Board to overturn the conclusion of the opposition division that comparative example 2 of D14 is a method according to claim 1 as granted which does not solve the technical problem formulated by the respondent.
- 2.2.9 However, it is established case law that when defining the objective technical problem, an effect cannot be retained if it is not credible that the promised result is attainable throughout the entire range covered by a claim (Case Law of the Boards of Appeal of the EPO, 10th edition, 2022, I.D.4.1, fifth paragraph).
- 2.2.10 Under these circumstances, the formulation of the technical problem effectively solved over example 1 of D5 which was formulated by the respondent is not allowable. Rather, said problem can only be seen as residing in the mere provision of a further method for producing a polymer in a continuous process, in alternative to the one of example 1 of D5.
- 2.2.11 In view of the above, the fact that the examples and comparative examples of the patent in suit showed that an effect was under these specific conditions achieved, as was put forward by the respondent, is not relevant. For the same reasons, there is also no reason to address the issue of the probative value of the examples of D5 and of their comparison with the method being claimed, which was put into question by the respondent (letter of 23 December 2022: page 6, two last paragraphs).

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#### 2.3 Obviousness

- 2.3.1 The question remains to be answered if the skilled person, desiring to solve the problem identified as indicated in section 2.2.10 above, would, in view of the closest prior art, possibly in combination with other prior art documents or with common general knowledge, have modified the disclosure of the closest prior art in such a way as to arrive at the claimed subject matter. In particular, it has to be assessed if, in the absence of any indication in that regard in D5, it would have been obvious to solve the problem posed by carrying out the method according to example 1 of D5 with a linear velocity and a pipe diameter as defined in claim 1 as granted (see section 2.1.2 above).
- 2.3.2 In that regard, the Board shares the view of the appellant that, since the problem to be solved resides in the provision of a mere alternative to the closest prior art, there is no need for a pointer to such a combination of features in the prior art (decision under appeal: section 2.5.5, third paragraph; rejoinder: page 12, first paragraph; appellant's letter of 23 September 2021: sections 8-13). Indeed, the established decisive principle governing the answer to the question as to what a person skilled in the art would have done depends on the result they wished to obtain (T 939/92, OJ EPO 1996, 309: point 2.5.3 of the reasons). In the case in hand, it must therefore be considered that the skilled person is deemed to be merely seeking to provide a further method in alternative to the one of example 1 of D5. In the absence of any indication in D5 regarding the linear velocity and inner diameter features that may suitably be used, the skilled person would consider any known

values of these parameters as a useful and obvious measure.

2.3.3 In that respect, it is already indicated in D5 that the initiator (i.e. the organolithium component) should be introduced into the turbulent zone(s) in the reactor (D5: claim 1; column 1, lines 45-53; column 3, lines 4-7 and 19-25). In view of this, the skilled person would be already aware that the reactor should be designed so as to fulfil that requirement, which is seen as to imply that the feed of the organolithium compound should be such as to allow a satisfactory introduction of that compound into the reactor. In the Board's view, using a linear velocity of the feed of the organolithium compound as defined in claim 1 as granted results from a routine optimisation of process features related to the reactor size and flow rate of the organolithium compound, the latter being directly related to pipe diameter and linear velocity.

> In particular, it was not contested by the respondent that, as put forward by the appellant (statement of grounds of appeal: sections 1.2 and 1.3 in part C.), the ranges of these features specified in operative claim 1 are not unusual in the art and/or are not for any reasons special. Also, it was not shown by the respondent that there was any reason to consider that the ranges of these features specified in operative claim 1 would be incompatible with the method according to example 1 of D5. In that regard, it is noted that the respondent argued (in particular at the oral proceedings before the Board but also e.g. on pages 7-8 of their rejoinder to the statement of grounds of appeal), that using many conventional pipes of usual inner diameters for feeding the organolithium compound to the reactor would lead to linear velocities of the

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solution comprising said organolithium compound outside the range specified in claim 1 as granted. However, said line of defense does not exclude that such a velocity may be achieved using at least some conventional pipes. Considering that the problem to be solved resides in the provision of an alternative, the mere possibility of achieving a velocity in the range specified in claim 1 as granted using a conventional pipe is sufficient to render the subject-matter being claimed obvious. Under these circumstances, the respondent's arguments are not persuasive.

The respondent additionally argued that, in view of the design of the reactor used in example 1 of D5, it was questionable whether the feed linear velocity of the organolithium compound was intentionally controlled (rejoinder: page 8, fourth paragraph). However, in view of the problem to be solved in the present case, what matters here is not the control of the velocity of the organolithium compound feed but rather whether or not it would be obvious to carry out example 1 of D5 with a feed linear velocity of the lower feed port (location 33) within the range specified in claim 1 as granted. In that regard, there is no evidence on file that the skilled person aiming at providing a mere alternative to D5 would not consider such a linear velocity as an obvious, arbitrary measure.

In addition, since the location of the feed port for the organolithium compound (at the bottom of the reactor according to claim 1 as granted) is not a feature distinguishing the method being claimed from the one of example 1 of D5 and since the design of three feeding ports as used in said example 1 of D5 is not excluded from the method defined in claim 1 as granted, no alleged advantage related to that feature

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as claimed by the respondent (see e.g. rejoinder to the statement of grounds of appeal: page 8, fourth paragraph; letter of 23 December 2022: page 5, last paragraph) may be present on the whole scope of the claim and can, therefore, be held to contribute to an inventive step.

In view of the above, the skilled person aiming at carrying out the method according to example 1 of D5 would select any suitable feed pipe and linear velocity for the organolithium compound, including a pipe having a diameter and a velocity of the solution comprising the organolithium compound as defined in claim 1 as granted. For these reasons the ranges of the "linear velocity" feature and of the "inner diameter" feature of claim 1 as granted can only be held to be the consequence of common reactor design and reaction conditions, which would have been obvious to choose for the skilled person aiming at carrying out the teaching of example 1 of D5. In other words, these features correspond to purely arbitrary measures which cannot contribute to an inventive step.

Under these circumstances, it was obvious for the skilled person aiming at providing an alternative method to carry out the method according to example 1 of D5 using a linear velocity of the solution comprising the organolithium compound and an inner diameter of the pipe of the feed port of the solution comprising the organolithium compound as defined in claim 1 as granted.

2.3.4 In the decision under appeal, the opposition division identified the same distinguishing features and also defined the problem to be solved in the form of a mere alternative as is done by the Board in the present - 19 - T 1548/20

decision but nevertheless acknowledged the presence of an inventive step considering that D5 provided no information in respect of the distinguishing features and considering that there were no suggestions in the prior art to adjust at the same time the linear velocity of the solution comprising the organolithium compound and the inner diameter of the pipe of the feed port.

However, considering that the problem to be solved resides in the provision of a mere alternative to the method of the closest prior art, no suggestion in the prior art is needed in order to render the subject-matter claimed obvious: it is sufficient to show that said missing features constitute an arbitrary selection within a host of available alternatives, which is the case here as outlined in sections 2.3.2 and 2.3.3 above.

2.3.5 For these reasons, the ground for opposition under Article 100(a) EPC in combination with Article 56 EPC prejudices maintenance of the patent as granted.

#### Auxiliary requests 5 and 6

- 3. Article 56 EPC
- 3.1 Claim 1 of auxiliary request 5 differs from claim 1 of the main request in that it comprises an additional feature defining the concentration of the organolithium compound in the solution fed to the polymerisation tank.
- 3.2 Claim 1 of auxiliary request 6 differs from claim 1 of auxiliary request 5 in that it comprises an additional feature defining the concentration of the monomer fed

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to the polymerisation tank.

- 3.3 However, the amendments made in claim 1 of these auxiliary requests do not define any additional conditions (as compared to claim 1 of the main request) regarding the degree of mixing and/or the homogeneity of the solution comprising the organolithium compound fed to the reactor. Therefore, said amendments do not allow to conclude that the method carried out in comparative example 2 of D14 is not according to claim 1 of auxiliary requests 5 or 6. It was also neither shown, nor even argued, that the amendments made constituted (an) additional distinguishing feature(s) over the closest prior art. Under these circumstances, the same reasoning as the one outlined above regarding inventive step of the main request is equally valid for claim 1 of each of auxiliary requests 5 and 6.
- 3.4 For these reasons, the subject-matter of claim 1 of auxiliary requests 5 and 6 does not involve an inventive step when taking document D5 as the closest prior art and these auxiliary requests are therefore not allowable.
- 4. Since neither the main request, nor any of auxiliary requests 5 or 6 is allowable, the patent is to be revoked.

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## Order

## For these reasons it is decided that:

- 1. The decision under appeal is set aside.
- 2. The patent is revoked.

The Registrar:

The Chairman:



D. Hampe D. Semino

Decision electronically authenticated