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**Datasheet for the decision
of 12 March 2019**

Case Number: T 0437/14 - 3.3.09

Application Number: 08003327.7

Publication Number: 1933395

IPC: H01L51/30, C09K11/06, H05B33/14

Language of the proceedings: EN

Title of invention:
Complexes of form L2IrX

Patent Proprietors:
The Trustees of Princeton University
The University of Southern California

Opponents:
Merck Patent GmbH
Sumitomo Chemical Company Ltd.
BASF SE

Headword:

Relevant legal provisions:
EPC Art. 54(3), 76(1), 87(1), 123(2)

Keyword:

Allowability of undisclosed disclaimer (Yes)

Loss of priority right after introduction of disclaimer (No)

Divisional application not prior art under Article 54(3) EPC

Decisions cited:

G 0001/03, G 0001/16, G 0001/15, G 0002/10, T 0437/14

Catchword:



Beschwerdekammern

Boards of Appeal

Chambres de recours

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Case Number: T 0437/14 - 3.3.09

D E C I S I O N
of Technical Board of Appeal 3.3.09
of 12 March 2019

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Decision under appeal: **Interlocutory decision of the Opposition
Division of the European Patent Office posted on
20 December 2013 concerning maintenance of the
European Patent No. 1933395 in amended form.**

Composition of the Board:

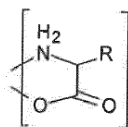
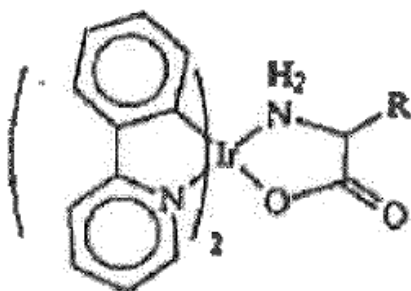
Chairman W. Sieber
Members: A. Veronese
 F. Blumer

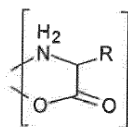
Summary of Facts and Submissions

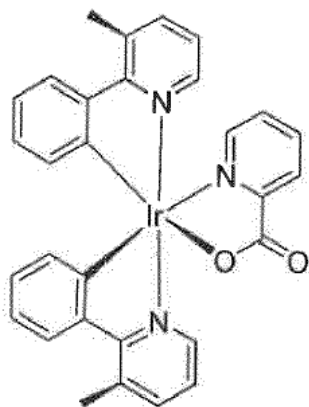
- I. This decision concerns the appeals filed by opponents 1 and 3 and the patent proprietors against the interlocutory decision of the opposition division finding that European patent No. 1 933 395 as amended meets the requirements of the EPC.
- II. With their notices of opposition, the opponents had requested revocation of the patent in its entirety on the grounds under Article 100(a) (lack of novelty and inventive step), 100(b) and 100(c) EPC.
- III. In its decision, the opposition division found that, taking into account the amendments made by the patent proprietors according to auxiliary request 3 (filed during the hearing before the opposition division), the patent meets the requirements of the EPC.
- IV. This decision was appealed by the patent proprietors, as well as by opponents 1 and 3. Opponent 2 withdrew its opposition in the course of the appeal proceedings. As all the remaining parties are both appellant and respondent in the present appeal proceedings, for simplicity the board will continue to refer to them as opponents 1 and 3 and the proprietors.
- V. On 28 and 29 April 2016, oral proceedings were held before the board of appeal. During the hearing the proprietors filed a new main request.

Claim 1 of the new main request reads as follows:

"1. Phosphorescent organometallic compound of formula L_2IrX , wherein L and X are inequivalent bidentate ligands,
 X is a monoanionic bidentate ligand, and the L ligands are monoanionic bidentate ligands each coordinated to Ir (iridium) through an sp^2 hybridized carbon and a heteroatom, excluding the compounds having formula



wherein the ligand  is an α -amino acid residue selected from glycine, L-alanine, L-valine, D-leucine, L-proline, or L-phenylalanine, and excluding the following compound:



..

At the end of the oral proceedings, the board decided that the proceedings would continue in writing.

VI. Following this, the board issued interlocutory decision T 437/14, dated 17 October 2016, which included a referral to the Enlarged Board of Appeal concerning "undisclosed disclaimers".

Issues decided in interlocutory decision T 437/14

VII. In its interlocutory decision, the board decided the following:

- the new main request was to be admitted into the appeal proceedings;
- leaving aside the issue of the disclaimers present in claim 1, basis for this claim and for the dependent claims could be found in the description of the original application and of the parent application as filed. Thus, the requirements of Articles 76 and 123(2) EPC were met;
- the amendments made to the claims met the requirement of Article 84 EPC;
- the patent provided sufficient information for the skilled person to prepare without undue burden metal complexes that fell within the general formula given in claim 1 and that were phosphorescent. Thus, the grounds of Article 100(b) EPC did not prejudice the maintenance of the patent;
- the claimed subject-matter was novel over the teaching of D3, D6 and D54;

- D2, which disclosed an OLED containing the iridium compound $\text{Ir}(\text{ppy})_3$, differing from the claimed agents in the nature and number of ligands chelating the iridium ion, represented the closest prior art. Starting from D2, and taking into account the results reported in the patent, the underlying problem was that of allowing for colour tuning of OLEDs. Neither D2, nor the other prior-art documents D3 and D5 to D7 provided a pointer to the claimed solution. Analogous conclusions would have been reached starting from D4 or D6 as the closest prior art. Thus, the claimed subject-matter involved an inventive step.

The disclaimer issue / Questions left open by the board

VIII. As far as the two disclaimers present in claim 1 were concerned, the board decided that:

- both disclaimers were "undisclosed disclaimers", as defined in G 1/03, because neither the disclaimers nor the subject-matter excised by them, were disclosed in the application as filed;
- the first and the second disclaimers excluded novelty-destroying subject-matter disclosed in D5 and D7 respectively;
- both D5 and D7 amounted to "accidental anticipations", within the meaning of G1/03;
- the disclaimers did not remove more than necessary to restore novelty, met the requirements of clarity and conciseness, and did not become relevant for inventive step.

- IX. On the basis of these findings, the board considered that these disclaimers fulfilled the conditions set out in G 1/03 for complying with Article 123(2) EPC.
- X. However, the board raised the question of whether the "gold standard" set out in decision G 2/10 was also to be applied in cases like the present one, where an undisclosed disclaimer is inserted into the claims. It considered that, if this were the case, then the two disclaimers mentioned above would have added new subject-matter and would not have been allowable under Article 123(2) EPC.
- XI. Furthermore, the board noted that the issue of whether the disclaimers added new subject-matter was also linked to that of whether the claimed matter enjoyed priority right. Since the earlier application from which the patent claimed priority did not contain the aforementioned disclaimers, their insertion into claim 1 could have resulted in the priority right being invalid. This could have further resulted in the claimed subject-matter not being novel over D57 and D58, two divisional applications stemming from the application on which the opposed patent in suit was based. The specific compounds disclosed in D57 and D58 fell within the scope of claim 1 of the patent.

Referral to the Enlarged Board of Appeal

- XII. After reviewing a number of earlier decisions of the board of appeal, the board considered that the case law which had developed after G 2/10 was not uniform, as regards whether the "gold standard" was applicable to undisclosed disclaimers. It then decided to refer to the Enlarged Board of Appeal several questions of law

aiming at clarifying whether the principles developed in G 2/10 were to be applied to undisclosed disclaimers and/or whether the criteria developed in G 1/03 continued to apply.

XIII. Since the allowability of the disclaimers and the relevance of the attacks based on D57 and D58 depended on the answer to the questions posed to the Enlarged Board of Appeal, the board did not give a ruling on these issues.

XIV. With its decision G1/16 dated 18 December 2017 (OJ EPO 2018, A70), the Enlarged Board of Appeal provided the answers to the questions referred to it.

Continuation of the appeal proceedings

XV. On 6 December 2018, the parties were summoned to a second oral proceedings before the board of appeal (in a different composition).
In a communication the board issued its preliminary opinion on the issues which had not been decided in its earlier interlocutory decision T 437/14, taking into account the criteria established in G 1/16 for assessing the allowability of undisclosed disclaimers.

XVI. By letters dated 8 January and 25 January 2019, opponent 1 and opponent 3 announced, respectively, that they would not be attending the oral proceedings.

XVII. On 12 March 2019, oral proceedings took place before the board. As announced, only the patent proprietors were represented. During the hearing the proprietors filed a new version of the description adapted to the claims of the new main request and withdrew the request not to admit D57 and D58.

XVIII. The proprietors requested that the patent be maintained on the basis of:

- the claims of the new main request filed during the oral proceedings before the board on 28 April 2016, together with an amended description filed during the oral proceedings before the board on 12 March 2019 and the drawings contained in pages 21 to 60 of the patent specification, or
- the first auxiliary request filed by letter dated 28 April 2014, or
- the second auxiliary request filed by letter dated 22 December 2014, corresponding to the dismissal of opponent 1's and opponent 3's appeals, or
- the third or fourth auxiliary request filed by letter dated 22 December 2014.

XIX. The opponents requested that the decision under appeal be set aside and that the patent be revoked.

Reasons for the Decision

New main request

1. *Points which are still to be decided*

1.1 The present decision deals with the following points which were not decided by the board in its earlier interlocutory decision T 437/14:

- whether, taking into account the answers to the questions referred to the Enlarged Board of Appeal in case G 1/16, the two disclaimers inserted into

claim 1 can be considered to comply with the requirements of Articles 123(2) and 76 EPC,

- whether the claimed subject-matter enjoys priority right,
- whether D57 and D58 anticipate the claimed subject-matter under Article 54(3) EPC.

2. *Allowability of the disclaimers*

2.1 In decision G 1/16 (OJ EPO 2018, A70; see the Order), the Enlarged Board of Appeal established that:

"For the purpose of considering whether a claim amended by the introduction of an undisclosed disclaimer is allowable under Article 123(2) EPC, the disclaimer must fulfil one of the criteria set out in point 2.1 of the order of decision G 1/03.

The introduction of such a disclaimer may not provide a technical contribution to the subject-matter disclosed in the application as filed. In particular, it may not be or become relevant for the assessment of inventive step or for the question of sufficiency of disclosure. The disclaimer may not remove more than necessary either to restore novelty or to disclaim subject-matter excluded from patentability for non-technical reasons".

2.2 As further clarified by the Enlarged Board of Appeal, the assessment of the allowability of a claim amendment by an undisclosed disclaimer is governed exclusively by the criteria laid down in G 1/03. For undisclosed disclaimers the proper test is whether the criteria of G 1/03 are fulfilled, and for disclosed disclaimers the proper test is the gold standard test of G 2/10. In

particular, the gold standard disclosure test referred to in decision G 2/10 is not the relevant test for examining whether a claim amendment concerning an undisclosed disclaimer complies with the requirements of Article 123(2) EPC (G 1/16; Reasons for the decision, points 43, 44, 49.1).

- 2.3 As already decided by the board of appeal in its earlier interlocutory decision T 437/14, the disclaimers inserted into claim 1 are undisclosed disclaimers (Reasons for the decision, point 7.2). Thus, in view of the ruling in decision G 1/16, these disclaimers have to be examined applying the criteria laid down in G 1/03.
- 2.4 In its earlier interlocutory decision, the board also already decided that the disclaimers establish novelty over accidental anticipations under Article 54(2) EPC, namely D5 and D7, and that they do not remove more than what is necessary to restore novelty over D5 and D7 (Reasons for the decision, points 10.1.7 and 10.1.8).
- 2.5 The board in the present composition further considers that there is no evidence that, while establishing novelty over those accidental anticipations, the disclaimers provide a technical contribution adding subject-matter extending beyond the content of the application as filed. In particular, no evidence was put forward by the opponents, and the board does not see any either, that the limitation of the genus of compounds covered by the formula in claim 1 which results from the excision of the seven specific compounds defined in the disclaimer, becomes relevant for establishing inventive step or sufficiency of disclosure. Accordingly, the disclaimers also meet the conditions laid down in points 2.6 and 2.6.1 of the

Reasons for the decision in G 1/03, and in the second paragraph of the Order of G 1/16.

2.6 For these reasons the board concludes that, since the disclaimers inserted into claim 1 of the new main request fulfil the criteria of G 1/03, they do not add originally undisclosed subject-matter extending beyond the content of the application as filed. In its earlier interlocutory decision T 437/14 the board has already decided that, leaving aside the issue of the disclaimers, basis for claim 1 and for the dependent claims can be found in the description of the application as filed and in the identical description of the parent application as filed. From this it follows the new main request fulfils the requirements of Articles 76 and 123(2) EPC.

3. *Validity of the priority right and novelty*

3.1 According to opponent 3, the subject-matter of claim 1 of the new main request lacked novelty over D57 and D58, two divisional applications stemming from the application on which the patent in suit was based. Opponent 3 argued that D57 and D58 disclosed specific compounds (shown e.g. in figures 10, 12, 14, 17, 19, 21, 22, 25, 27, 29 and 31 of each of D57, D58 and the patent) falling within the scope of claim 1, and that D57 and D58 validly claimed priority right from the earlier application US 09/452,346. By contrast, in view of the disclaimers added to claim 1 of the new main request, this claim did not validly claim a priority right from US 09/452,346. Thus, D57 and D58 belonged to the state of the art under Article 54(3) EPC for the subject-matter of claim 1 of the new main request.

3.2 For this attack to succeed, two conditions would have to be fulfilled, namely:

- at least one embodiment of the divisional application/s which enjoys a priority right from US 09/452,346 is encompassed by claim 1 of the new main request, and
- claim 1 of the new main request does not enjoy a priority right or at least a partial priority right for the part/s relating to those embodiment/s from US 09/452,346.

3.3 In its earlier interlocutory decision T 437/14, the board already decided that, leaving aside the issue of the disclaimers present in claim 1, the claims of the new main request are based on the description of the patent application as filed, and in particular on page 13, lines 9 to 10, and page 12, lines 11 to 15 in conjunction with page 4, lines 4 to 7 (Reasons for the decision, points 2.3-2.5).

3.4 The description of the patent application is identical to the description of the earlier application US 09/452,346 from which priority is claimed. Thus, leaving aside the issue of the disclaimers, the subject-matter claimed is also disclosed in that earlier application.

3.5 What remains to be decided is whether the insertion of the two disclaimers into claim 1 leads to the loss of the priority right. In this regard, the board notes that point 4 of the reasoning of decision G 1/03 reads:

"...a disclaimer, not providing a technical contribution (...), which is allowable during the

prosecution of a European patent application does not change the identity of the invention within the meaning of Article 87(1) EPC. Therefore, its introduction is allowable also when drafting and filing the European patent application without affecting the right to priority from the first application, which does not contain the disclaimer."

- 3.6 As set out in points 2.5 and 2.6 above, the two disclaimers present in claim 1 do not provide a technical contribution and fulfil the requirements of Article 123(2) EPC. Thus, they cannot "*change the identity of the invention within the meaning of Article 87(1) EPC*" and do not "*affect the right to priority from the first application*", as stated in G 1/03.
- 3.7 For these reasons, the board arrives at the conclusion that the subject-matter of claim 1 enjoys priority from the earlier application US 09/452,346 from which priority is claimed (Article 87(1) EPC).
- 3.8 In this context, the board also notes that, as far as D57 and D58 disclose specific compounds falling within the definition of claim 1 and validly claim priority from the earlier application US 09/452,346, claim 1 of the new main request validly claims a corresponding partial priority right from US 09/452,346 for those same specific compounds. Claim 1 is, in fact, a generic "OR"-claim encompassing alternative subject-matter which is directly and unambiguously disclosed in the priority document and is thus entitled to a partial priority for that alternative subject-matter within the meaning of G 1/15 (Reasons of the decision, point 6.4 and Order of that decision).

3.9 As a consequence, the second condition mentioned above in point 3.2 is not fulfilled and D57 and D58 do not form part of the state of the art under Article 54(3) EPC for the purpose of assessing novelty of the claimed subject-matter.

3.10 For the aforementioned reasons, and taking into account the conclusions already reached by the board in its earlier interlocutory decision T 437/14, the board decides as follows:

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the opposition division with the order to maintain the patent as amended in the following version:
 - Claims: Claims 1 to 5, filed as New Main Request during the oral proceedings before the board on 28 April 2016;
 - Description: Pages 3 to 18 as filed during the oral proceedings before the board on 12 March 2019;
 - Drawings: Pages 21 to 60 of the patent specification.

The Registrar:

The Chairman:



M. Cañueto Carbajo

W. Sieber

Decision electronically authenticated