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**Datasheet for the decision
of 28 May 2020**

Case Number: T 1963/17 - 3.3.06

Application Number: 12736476.8

Publication Number: 2665556

IPC: B01J23/46, B01J23/44,
B01J37/02, B01D53/94

Language of the proceedings: EN

Title of invention:

Three-way conversion catalyst with alumina-free rhodium layer

Applicant:

BASF Corporation

Headword:

Layered catalyst composite / BASF

Relevant legal provisions:

EPC Art. 78, 84, 90
EPC R. 42, 56, 139

Keyword:

Replacement of the original description: not allowable
Compliance with the requirements of Article 84 EPC (all
requests): no - Wording "substantially simultaneoulsy" unclear

Decisions cited:

G 0002/95, J 0027/10, J 0016/13

Catchword:



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Case Number: T 1963/17 - 3.3.06

D E C I S I O N
of Technical Board of Appeal 3.3.06
of 28 May 2020

Appellant: BASF Corporation
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Decision under appeal: **Decision of the Examining Division of the
European Patent Office posted on 13 March 2017
refusing European patent application No.
12736476.8 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman J.-M. Schwaller
Members: L. Li Voti
C. Heath

Summary of Facts and Submissions

- I. The appeal lies from the decision of the examining division refusing European patent application n° 12 736 476.8 because the claims of the then pending requests lacked support by the description and clarity (Article 84 EPC). Furthermore the amended description did not comply with the requirements of Rule 42(1) (e) EPC, as the applicant replaced the original description, that did not contain support for the present claims, with a new one which merely listed the embodiments and preferred embodiments of the invention as defined in claims 1 to 15 then on file.
- II. The case history is the following. The application based on two US priority filings was published on 26 July 2012 with a description which did not match with the claims and vice versa, despite being both in the same technical field of catalysts. After entry into the European phase, the examiner considered that the claims could not be searched and the amended description not be taken into account. With letter dated 22 September 2014 the applicant reverted to the claims as originally filed and it filed a description that consisted of a verbatim repetition of the features defined in the original claims with a further reference to figure 1 as originally filed. After a further exchange of letters, the examining division refused the application because in its view a description that consisted of a mere repetition of the claims was insufficient to meet the requirements of Article 84 and Rule 42 EPC.
- III. With its statement of grounds of 19 July 2017 the Appellant resubmitted as main request the set of claims

dated 22 September 2014 and pages 1 to 5 of a description, which consisted of a verbatim repetition of the claims then on file with an additional acknowledgement of the prior art and a reference to figure 1 as originally filed. Moreover, it filed nine amended sets of claims as auxiliary requests I to IX and five documents, among them

D1: Catalysis by Ceria and Related Materials, edited by A. Trovanelli, Imperial College Press, 2005, chapter 10, pages 343-375;

D3: Ullmann's Encyclopedia of Industrial Chemistry, chapter "Automobile Exhaust Control", 2012, Wiley-VCH Verlag, pages 407-424; and

D5: Expert opinion by Dr. Rudolf Teschemacher signed 12 July 2017.

IV. In response to the preliminary opinion of the Board, the Appellant filed with letter dated 24 April 2020 five newly amended sets of claims as auxiliary requests X to XIV and document **D6:** RP-Energie-Lexikon, Drei-Wege-Katalysator by Dr. R. Paschotta, 06.08.2017, last modified on 14.02.2020.

V. At the oral proceedings it was in particular discussed whether the replacement of the original description (that apparently and uncontestedly belonged to a different invention) by a new one adapted to the original claims complied with the requirements of the EPC and whether the expression "substantially simultaneously" (present in all requests) complied with the requirements of clarity (Art. 84 EPC). Documents D1, D3, D5 and D6 were addressed, too.

VI. Claim 1 of the main request reads as follows:

"1. A layered catalyst composite comprising: a catalytic material on a carrier, the catalytic material comprising first and second layers, the first layer comprising a first precious metal component selected from palladium on a refractory metal oxide support and on a first oxygen storage component, the second layer being the outermost layer of the composite, comprising a second precious metal selected from rhodium on a second oxygen storage component, and being substantially alumina-free; wherein the catalytic material is effective to substantially simultaneously oxidize carbon monoxide and hydrocarbons and reduce nitrogen oxides."

VII. Each claim 1 of the auxiliary requests I to XIV contains the wording *"wherein the catalytic material is effective to substantially simultaneously oxidize carbon monoxide and hydrocarbons and reduce nitrogen oxides"*.

VIII. The Appellant's final requests were that the decision under appeal be set aside and the case be remitted to the examining division for further prosecution on the basis of the main request including the amended description as filed with letter of 19 July 2017 or, auxiliary, on the basis of any of auxiliary requests I to IX, filed with letter of 19 July 2017, or of auxiliary requests X to XIV, filed with letter of 24 April 2020.

Reasons for the Decision

1. *Compliance with the requirements of Articles 78, 123(2), Rules 42, 56 and 139 EPC - Exchange of an erroneously filed description*
 - 1.1 It is undisputed that the application as filed was defective in a number of ways, most notably that its description was not in compliance with Rule 42 (1)(c) EPC that requires that the description must mention the technical problem and solution of the invention. Since the "invention" as pursued by the Appellant is the one as defined in the claims, the description neither set out the problem nor the solution to this invention. It can be left open whether under these circumstances a filing date should have been accorded to this invention under Art. 90 EPC (allocation of a filing date) that refers to Art. 78 EPC (requirements of a European application) which in turn refers back to Rule 42 EPC.
 - 1.2 The question is rather whether the Appellant was entitled to substitute the originally filed description with a different one. The Appellant in this regard supplied the legal opinion (D5) by Rudolf Teschemacher according to whom this is possible: "...if a claim clearly discloses subject-matter which is not mentioned in the description, it is permissible to amend the description so that it includes this subject matter... This is exactly what the applicants have done in this case..." (D5, paragraph B.6).
 - 1.3 Two avenues have been pursued by applicants in order to substitute a complete description. The first under Rule 139 (formerly Rule 88) EPC (correction of errors), the second under Rule 56 EPC (missing parts of description and drawings).

1.4 Decision **G 2/95** (OJ EPO 1996, 555) decided that the complete application data could not be replaced under Rule 139 EPC. Decision **J 16/13** of 22 May 2014 held that this equally applied to the exchange of a description:

*"18. At the oral proceedings the appellant argued that the cited decisions of the Enlarged Board of Appeal were not applicable to the present case, given that **G 2/95** and **J 5/06** concerned cases where the whole application, and not only a part of it, had to be exchanged. However, the Board holds that the ratio decidendi of these decisions is fully applicable to all cases where at least a complete description is sought to be exchanged. This follows from the principle outlined above that the filing date is inseparable from the description, since it is obvious that allowing an exchange of "only" the description by way of correction would directly result in the separation of the filing date from the description."*

The reason for this is simply that in light of the infinite possibilities of drafting a description, it is not obvious to a skilled person how an amended description should look like. In the current case, it may not even have been obvious to a skilled person which invention (the one disclosed in the description, or the one disclosed in the claims) the applicant intended to pursue.

1.5 As also discussed in decision **J 16/13** (point 22), Rule 56 EPC allows an applicant to supply missing parts of the description after the application has been filed. In case these missing parts have been contained in the priority application, the original filing date can be retained under certain circumstances (Rule 56(3) EPC). Where such missing parts were not contained in the

priority application, the filing date will be shifted to the date where such missing parts were filed (Rule 56 (2) EPC). However, in the present case nothing turns on this, as the Appellant has not merely supplied "missing parts of the description", but a new description in toto.

- 1.6 Decision **J 27/10** was faced with a comparable situation as the current one, namely a request that an originally filed description be replaced by another one. The Board held that this was not allowable:

"2. As regards the appellant's main request, Rule 56 EPC is the relevant provision which most closely corresponds to the provisions of Article 5(6) of the Patent Law Treaty (PLT). Rule 56 EPC was introduced after the Revision of the EPC (EPC 2000) (see decision of the Administrative Council of 7 December 2006 amending the Implementing Regulations to the EPC 2000 (Special edition No. 1, OJ EPO 2007, 89)) and entered into force on 13 December 2007 (see Article 3 of said decision of the Administrative Council).

3. Article 90(1) EPC provides that the EPO examines, in accordance with the Implementing Regulations to the EPC, whether the application satisfies the requirements for the accordance of a date of filing.

If the examination under Article 90(1) EPC reveals that parts of the description, or drawings referred to in the description or in the claims, appear to be missing, the EPO shall invite the applicant to file the missing parts within two months (Rule 56(1), first sentence, EPC).

4. It is not literally stipulated in Rule 56 EPC, that the applicant may also file of his own motion missing parts of the description or missing drawings (i.e.

without being invited to do so by the EPO). However, Rule 56(2), first sentence, EPC, reads:

"If missing parts of the description or missing drawings are filed later than the date of filing, but within two months of the date of filing or, if a communication is issued under paragraph 1, within two months of that communication, the application shall be re-dated to the date on which the missing parts of the description or missing drawings were filed."

From this wording it is clear that the applicant may also file of his own motion missing parts of the description or missing drawings. This approach is in line with the intention of the legislator (see travaux préparatoires, CA/PL 5/02, 18 June 2002, Explanatory remarks, page 12 regarding Rule 39a EPC (which is the former provision of Rule 56 EPC in the travaux préparatoires)). The board also notes that this approach is reflected in the instructions to the EPO (see Guidelines for Examination in the EPO, April 2010, A-Chapter II, 5.2).

....

9. Neither the EPC nor the travaux préparatoires concerning Rule 56 EPC (or former Rule 39a EPC) contain a definition of the term "missing parts of the description". Therefore, this term must be construed.

10. The board considers that the same interpretation is to be given to the term "parts of the description ... appear to be missing" in Rule 56(1), first sentence, EPC as to the term "missing parts of the description" in the subsequent paragraphs of Rule 56 EPC for deciding if a part is missing from the description. This term is also used in the title of the whole provision. The board also considers that the terms "missing parts of the description", "Fehlende Teile der Beschreibung" and "Parties manquantes de la

description" have the same meaning in all three language versions.

11. In the board's understanding the term "description" in "missing parts of the description" refers to the description which was originally filed in order to obtain a filing date and not to any other description, such as, for example, the one the appellant actually intended to file or the description of a priority application. In its literal sense the term "missing parts of the description" indicates that some parts of the description are missing or absent but other parts of it have been filed. From this the board concludes that the incomplete originally filed description is to be completed by the missing parts which must be added to the already filed text of the description.

12. Thus an interpretation of Rule 56 EPC that some, or all, of the description that was originally filed in order to obtain a filing date could be amended, replaced or deleted is incorrect."

1.7 Since Rule 56 is a provision that relates to Part IV of the EPC (Procedure up to grant, Arts. 90 - 98) it appears of no relevance to the interpretation of this specific Rule whether the replacement of the description adds subject matter to the application, or not (Article 123(2) EPC).

1.8 The Appellant also invited the Board to liken the current case to one where two inventions were claimed in the same application that subsequently due to a lack of unity had to be pursued separately. The difference with the present case is, however, that in such latter case a complete description exists already for both inventions and the problem of replacing a description with a different one does not arise.

- 1.9 It results thus from the above that the provisions of the EPC do not allow the replacement in toto of an original description with a different one.
- 1.10 As all requests filed by the Appellant rely on the amended description as filed with the main request, it follows from the above that the Appellant's request to obtain a patent on the basis of the replaced description must be refused as non-compliant with Rules 139 and 56 EPC.
2. *Compliance with the requirements of clarity under Article 84 EPC*
 - 2.1 Claim 1 of the main request requires that the catalytic material of the layered catalyst composite is "effective to substantially simultaneously oxidize carbon monoxide and hydrocarbons and reduce nitrogen oxides".
 - 2.2 In its preliminary opinion the board observed that such a wording was a functional requirement of the claimed product (i.e. a result to be achieved) which rendered the extent of product claim 1 unclear. Moreover the wording "substantially simultaneously" was unclear in itself.
 - 2.3 The Appellant, though acknowledging that features defining a result to be achieved might be problematic under Article 84 EPC, stated that in the present case the claims were properly defined by the structural features of the layered structure. The contested functional feature was thus a merely descriptive term indicating the general purpose or aim of the claimed layered catalyst composite which did not add any

additional contribution of technical significance to the claimed catalyst.

2.3.1 In particular, the contested wording merely defined the catalytic material as being effective as a three-way catalyst (TWC). It was however common general knowledge as shown in D1, D3 and D6 that a TWC has the ability to simultaneously oxidize carbon monoxide and hydrocarbons while reducing nitrogen oxides. Therefore, the contested wording merely described the properties of a TWC which were inherent to the claimed layered catalyst composite. Any layered catalyst having the structural features of claim 1 would thus have some TWC activity. The term "effective" also referred only to any basically detectable activity without indicating any specific degree of efficiency.

2.4 For the board, it is undisputed and common general knowledge, as shown in D1, D3 and D6, that TWCs are catalytically able to oxidize carbon monoxide and hydrocarbons while reducing nitrogen oxides. For example as stated in D3 (page 415, left column, last paragraph): "A further improvement in exhaust gas control technology for stoichiometric spark-ignition engines was achieved by the development of three-way catalysts that simultaneously convert all the regulated pollutants". The pollutants, as shown in figure 8 of D3 are carbon monoxide, hydrocarbons and nitrogen oxides, i.e. the same as those cited in claim 1 at issue.

2.4.1 However claim 1 does not explicitly define the claimed catalyst as being a TWC and, as discussed during oral proceedings, claim 1 does not contain any indication of the relative amounts of the precious metal components (palladium, rhodium) and of the oxygen storage components (OSC) contained in the layered catalyst

composite, which necessarily influence the activity of the claimed catalyst and thus its ability to have the indicated function. Therefore, the generic structural features listed in the claim are by themselves not sufficient for achieving necessarily the result indicated in the claim or for identifying clearly the claimed catalyst as a TWC.

For this reason the board cannot agree with the Appellant that the contested wording would be merely descriptive and would simply indicate that any layered catalyst composite having the structural features of claim 1 would be suitable for the indicated function and would just define the claimed subject-matter as being suitable as a TWC.

- 2.4.2 Moreover, for the board, it remains unclear what is the meaning of the term "substantially simultaneously" since it could be considered to be unrelated to a specific efficiency of the catalyst or to extend to catalysts having a sub-optimal conversion efficiency of the mentioned pollutants, which for example would not be considered by the skilled person to be suitable for a TWC as intended in common general knowledge.

Since the activity of the catalyst is necessarily linked to the structural characteristics of the layered catalysts, for example in terms of precious metals and OSC content which are not specified in the claim, the limits conferred by the used functional wording to the claimed product remain unclear.

- 2.4.3 Furthermore the originally filed description did not concern the claimed subject-matter but a different invention and thus it did not contain any basis for an interpretation of the functional wording of claim 1.

- 2.5 The board thus concludes that claim 1 of the main request lacks clarity (Article 84 EPC).
3. Claim 1 of auxiliary requests I-XIV
 - 3.1 Independent claim 1 of auxiliary requests I-X, XII and XIV relate to a layered catalyst composite and claim 1 of auxiliary requests XI and XIII to an exhaust gas treating system comprising a layered catalyst composite located downstream of a gasoline engine, wherein the layered catalyst composite is characterised by features including the same functional wording as claim 1 of the main request.
 - 3.2 Like claim 1 of the main request, all these claims do not contain a specification of the layered catalyst composite as being a TWC or of the amounts of precious metals and oxygen storage components contained in the catalyst.
 - 3.3 Therefore, claim 1 of all auxiliary requests lacks clarity for the same reasons exposed with respect to the main request.
 - 3.4 None of the requests on file is thus compliant with Art. 84 EPC.
4. *Announcement to file an amended request*
 - 4.1 For the sake of completeness, the Board remarks that during oral proceedings, the Appellant offered to file an amended claim whereby the clarity objection would be overcome by deleting the word substantially. While this could perhaps have solved the above clarity objection, the Board under the *prima facie* test applicable to the admission of late filed requests (Art. 13 (1) RPBA

2020) considered that such deletion would raise new issues in particular under Art. 123(2) EPC due to a shift in the scope of protection and was thus not *prima facie* allowable. For this reason, the Board would not have admitted such request into the proceedings.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:



A. Pinna

J.-M. Schwaller

Decision electronically authenticated