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**Datasheet for the decision
of 13 February 2015**

Case Number: T 1694/12 - 3.3.06

Application Number: 02774983.7

Publication Number: 1442102

IPC: C10L1/12

Language of the proceedings: EN

Title of invention:

Cerium oxide nanoparticles

Applicant:

Energenics Europe Limited

Headword:

Doped cerium oxide / ENERGENICS

Relevant legal provisions:

EPC Art. 84, 108

Keyword:

Admissibility of the appeal (yes) -
notice of appeal and statement of grounds deemed filed in due
time

Support by the description - (no) all requests

Decisions cited:

T 0409/91, T 0124/93, T 0972/05

Catchword:



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Case Number: T 1694/12 - 3.3.06

D E C I S I O N
of Technical Board of Appeal 3.3.06
of 13 February 2015

Appellant: Energenics Europe Limited
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Decision under appeal: **Decision of the Examining Division of the European Patent Office posted on 23 February 2012 refusing European patent application No. 02774983.7 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman B. Czech
Members: L. Li Voti
U. Lokys

Summary of Facts and Submissions

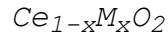
- I. This appeal lies from the decision of the Examining Division to refuse European patent application no. 02 774 983.7.
- II. The Examining Division decided that each claim 1 according to then pending main request and auxiliary requests 1 to 3 lacked clarity and support by the description and that the invention was not sufficiently disclosed (Articles 84 and 83 EPC).

The Examining Division expressed also as *obiter dicta* its opinion that each claim 1 lacked novelty and/or inventive step.

- III. In its statement of the grounds of appeal of 4 July 2012 the Appellant contested the reasoning of the Examining Division. Together with said statement it filed three sets of amended claims as main request and first and second auxiliary requests, respectively, and also amended pages of the description.
- IV. The Appellant requested that the decision under appeal be set aside and that a patent be granted on the basis of the set of claims according to the main request or, in the alternative, on the basis of one of the sets of claims filed as first and second auxiliary request, all requests filed with the statement of grounds of 4 July 2012.
- V. Claim 1 according to the main request reads as follows:

"1. A fuel including one or more particles of cerium oxide which have been doped, so as to form additional oxygen vacancies, with a divalent or trivalent metal or

metalloid which is a rare earth metal, a transition metal or a metal of group IIA, IIIB, VB, or VIB of the Periodic Table, wherein the oxide has the formula:



where M is a said metal or metalloid and x is a value up to 0.3."

Claim 1 according to the first auxiliary request differs from claim 1 according to the main request insofar as it reads (amendments made apparent by the Board):

"1. A fuel including one or more particles of cerium oxide which have been doped, ~~so as to form additional oxygen vacancies,~~ with a divalent or trivalent metal or metalloid ...x is a value up to 0.3, **and wherein the metal or metalloid is a dopant ion incorporated into the cerium oxide lattice resulting in additional oxygen vacancies being formed.**"

Claim 1 according to the second auxiliary request differs from claim 1 according to the first auxiliary request insofar as the final clause is amended and reads:

"... ,and wherein the metal or metalloid is a dopant ion **which has been** incorporated into the cerium oxide lattice **by baking at between 600°C and 1000°C** resulting in additional oxygen vacancies being formed."

VI. In a first communication pursuant to Rule 100(2) EPC dated 8 July 2013, the Board questioned the admissibility of the appeal, since the notice of appeal, received at the EPO on 26 April 2012, had been stated to be filed against the decision of the Examining Division posted on 23 February 2012, which

"decision" appeared to be identical in term of the Summary of Facts and Submissions, the Reasons for Decision and the order ("application .. refused") to the decision already posted previously in the same case on 24 January 2012.

VII. With its reply of 18 September 2013 the Appellant explained why in its view the appeal was admissible, pointing *inter alia* to certain entries in the online register of the EPO in view of which it had the legitimate expectation that its appeal had been filed in time.

VIII. In a second communication pursuant to Article 15(1) RPBA of 25 September 2014, issued with summons to oral proceedings, the Board expressed its preliminary opinion concerning various issues.

a) In particular, concerning the admissibility of the appeal, the Board accepted that

"i) the issuance, by the Examining Division, of a further "decision", posted on 23.02.2012 and apparently only differing from the decision posted on 24.01.2012 in that the date of the oral proceedings referred to, respectively, on Forms 2007 and 2048.2, was corrected from 15.12.2010 to 28.11.2011;

ii) the fact that in the online register of the EPO
- under the Tab "About this file...", the only mention of a refusal decision reads "23.02.2012 Despatch of communication that the application is refused, reason: substantive examination {1}";

- under the tab "Event history", the following entries are found in chronological order (emphasis added):

"20.01.2012 New entry: Despatch of communication that application is refused"

"11.02.2012 **Deletion:** Despatch of communication that application is refused"

"17.02.2012 New entry: Despatch of communication that application is refused"

was confusing as regards the time limit to be observed when filing the notice of appeal and the statement of grounds in respect of the decision of the examining division to refuse the application handed down at the oral proceedings on 28.11.2011."

Hence, the Board held that it was *"comprehensible that the above circumstances induced the Applicant to believe that the filing of an appeal against the refusal decision posted on 24.01.2012 was possible until the expiry of the time limits set by the "decision" referring to the correct date of the oral [proceedings] which was posted on 23 February 2012. The Board is thus of the provisional opinion that, applying the principles of good faith and of protection of legitimate expectations, see e.g. decisions T 0124/93 (reasons 1.1) and T 0972/05 (reasons 1.1 to 1.4) handed down in comparable cases, the notice of appeal and the statement of grounds filed by the Applicant after the expiry of the terms set by decision posted 24.01.2012 should be considered to have been filed in due time."*

b) Under point 6.2 of the communication, the Board questioned whether claim 1 according to the main request according to the main request was supported by the description, indicating the following:

"...the Board remarks that according to the description (page 1, lines 5 and 25 to 26 of the application published as WO 03/040270 A2) the claimed invention concerns cerium oxide nanoparticles: "This invention relates to cerium oxide nanoparticles...The cerium oxide particles must be of a nanocrystalline nature..."

This essential characteristic of the invention is not reflected in claim 1 according to the main request, which relates to doped cerium oxide particles of any size.

However, only claims 6, 7 and 8 relate to a doped cerium oxide of specific particle size. Hence, all the other claims at issue do not appear to be supported by the description (Article 84 EPC)."

c) Under point 7.2 of the communication, the Board also held "...the above considerations concerning clarity and support outlined with respect to the main request (points 6.2 to 6.6 above) apply also to the corresponding claims according to auxiliary requests 1 and 2."

IX. The Appellant replied by letter of 19 December 2014 indicating the following:

"With reference to the summons to oral proceedings dated 25 September 2014 in connection with the above application, we confirm that we will not be attending the hearing.

We look forward to receiving a Decision in due course."

X. Oral proceedings were held on 13 February 2015 in the absence of the duly summoned Appellant.

Reasons for the Decision

Admissibility of the appeal

1. The Board is satisfied that the appeal complies with the requirements of Article 108 EPC and is admissible for the reasons set forth in its communication of 25 September 2014 (see point VIII a) above).

Main request - Claim 1 - Lack of support by the description

2. Art. 84 EPC stipulates that the claims must be supported by the description. According to established jurisprudence of the Boards, this requirement means that the subject-matter of the claim must be taken from the description and it is not admissible to claim something which is not described.

As exposed for instance in decision T 409/91, OJ1994, 653, point 3.3 of the reasons) "Art. 84 EPC also requires that the claims must be supported by the description, in other words it is the definition of the invention in the claims that needs support. In the Board's judgment, this requirement reflects the general legal principle that the extent of the patent monopoly, as defined by the claims, should correspond to the technical contribution to the art in order for it to be supported, or justified (see T 133/85, OJ EPO 1988, 441). This means that the definitions in the claims should essentially correspond to the scope of the invention as disclosed in the description."

3. The Board indicated under point 6.2 of its communication of 25 September 2014 (see point VIII b) above) the reasons for which it considered that claim 1 according to the main request lacked support by the description (Article 84 EPC).

3.1 In particular, the Board, referring to the description of the application, held that although the disclosure of the invention concerned cerium oxide **nanoparticles**, this essential feature of the invention was not reflected in claim 1 at issue.

3.2 In fact, according to page 1, lines 5 to 6, of the application "*This invention relates to cerium nanoparticles which are useful as catalysts*".

The requirement of the invention that the cerium oxide must be present as **nanoparticles** is reiterated, for example, also in the passage on page 1, lines 22 to 28, wherein the following is stated: "*The above catalytic activity may occur when cerium oxide is added as an additive to fuel, for example diesel or petrol. However, in order for this effect to be useful the cerium oxide must be of a particle size small enough to remain in a stable dispersion in the fuel. The cerium oxide particles must be of a nanocrystalline nature, for example they should be less than 1 micron in size, and preferentially 1-300nm in size. In addition, as catalytic effects are surface area dependant the small particle size renders the nanocrystalline material more effective as a catalyst.*"

4. Therefore, the subject-matter of claim 1 according to the main request (see point V above), which relates to a fuel containing doped cerium oxide of **any** particle

size, is not limited to the invention as presented in the description.

5. In its letter of 19 December 2014 (point IX above) the Appellant did not reply to the objections raised in the Board's communication but simply stated "*We look forward to receiving a Decision in due course*".
6. Therefore, the Board has no reason to deviate from the provisional opinion expressed in the communication of 25 September 2014.
7. In the Board's judgement, the subject-matter of claim 1 according to the main request thus lacks support by the description. Claim 1 at issue does not, therefore, meet the requirements of Article 84 EPC.

*First and second auxiliary requests - Claims 1 -
Lack of support by the description*

8. As explicitly indicated under point 7.2 of the communication dated 25 September 2014 (see point VIII c) above), the considerations concerning support by the description outlined with respect to the main request (point 6.2 of the communication) applied also to the corresponding claims according to the first and second auxiliary requests.
 - 8.1 Indeed, the respective claims 1 of both auxiliary requests (see point V above) are also directed to fuels comprising doped cerium oxide of any particle size.
 - 8.2 Considering that the Appellant did not respond to the objection expressed in the preliminary opinion, the Board has no reason to deviate therefrom.

9. In the Board's judgement, the subject-matters of the respective claims 1 of the two auxiliary requests at issue thus lack also support by the description. Hence, they do not meet the requirements of Article 84 EPC either.

Conclusion

10. None of the Appellant's requests is allowable.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:



D. Magliano

B. Czech

Decision electronically authenticated