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**Datasheet for the decision
of 21 February 2017**

Case Number: T 2347/12 - 3.2.06

Application Number: 99957513.7

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Language of the proceedings: EN

Title of invention:

CATALYST AND METHOD FOR REDUCING EXHAUST GAS EMISSIONS

Patent Proprietor:

BASF Catalysts LLC

Opponents:

Umicore AG & Co. KG
Johnson Matthey Public Limited Company

Headword:

Relevant legal provisions:

EPC Art. 123(2)
EPC 1973 Art. 56
RPBA Art. 13(1)

Keyword:

Inventive step - auxiliary request 6 (no)
Amendments - added subject-matter (yes) Main request, Auxiliary
requests 1 to 5 and 7 to 12

Decisions cited:

T 0759/91

Catchword:



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Case Number: T 2347/12 - 3.2.06

D E C I S I O N
of Technical Board of Appeal 3.2.06
of 21 February 2017

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Decision under appeal: **Interlocutory decision of the Opposition
Division of the European Patent Office posted on
4 September 2012 concerning maintenance of the
European Patent No. 1165946 in amended form.**

Composition of the Board:

Chairman	M. Harrison
Members:	M. Hannam
	W. Ungler

Summary of Facts and Submissions

I. Appeals were filed by the appellant (proprietor) and the appellant (opponent OII) against the interlocutory decision of the opposition division in which it found that European patent No. 1 165 946 in an amended form met the requirements of the EPC.

II. The appellant (proprietor), hereafter 'proprietor' requested that the interlocutory decision be set aside and the patent be maintained according to a main request or, in the alternative, according to one of auxiliary requests 1 to 7.

The appellant (opponent OII), hereafter opponent OII, requested that the interlocutory decision be set aside and the patent be revoked.

III. Reference is made to the following documents in the present decision:

D2 WO-A-93/10885

D3 WO-A-93/10886

D5 WO-A-94/22564

D10 EP-A-0 834 343

D11 ZA 90/4363

D18 'Monolithic diesel oxidation catalysts', Applied Catalysis B: Environmental 10(1996) 29-51

IV. With letter of 28 May 2013 the proprietor submitted a replacement main request and auxiliary requests 1 to 3 and 5 to 7 along with a new auxiliary request 8.

V. The Board issued a summons to oral proceedings including a communication containing its provisional opinion, in which it indicated *inter alia* that the

subject-matter of claim 2 of the main request appeared not to meet the requirement of Article 123(2) EPC. It also indicated that the objections under Article 56 EPC when starting from D11 and in light of the problem to be solved together with the teaching of any of D2, D3 or D5 appeared unconvincing.

- VI. With letter of 20 January 2017 the proprietor submitted replacement requests comprising a main request and auxiliary requests 1 to 12.
- VII. With letter of 20 January 2017, the respondent (opponent OI) submitted arguments that the subject-matter of claim 1 of the main request did not involve an inventive step when starting from D11 and combining this with the teaching of D10.
- VIII. With letter of 8 February 2017 the proprietor submitted a replacement main request and replacement auxiliary requests 1, 3, 4, 7, 8, 10 and 11.
- IX. Oral proceedings were held before the Board on 21 February 2017.

The proprietor requested that the decision under appeal be set aside and the patent be maintained according to the main request or one of auxiliary requests 1 to 12 as identified on the list of requests filed during oral proceedings. The list comprised the following requests:

With letter of 11 January 2013:

Pending auxiliary request 6, filed as auxiliary request 4 with the letter;

With letter of 28 May 2013:

Main request and auxiliary request 1; and

Pending auxiliary requests 3, 4, 7, 8, 10, 11 filed as auxiliary requests 2, 3, 5, 6, 7, 8 with the letter;

With letter of 20 January 2017:

Pending auxiliary requests 2, 5, 9 and 12.

The opponent OII requested that the decision under appeal be set aside and the patent be revoked.

The respondent, opponent OI, requested that the proprietor's appeal be dismissed.

- X. Claim 2 of the main request and auxiliary request 3 read as follows:

"An apparatus comprising:

a diesel engine (2) having an exhaust outlet (3);
a catalyzed filter (4) in communication with the exhaust outlet (3), the catalyzed filter (4) comprising a first catalyst, the first catalyst comprising:
a platinum component in an amount of 529 to 2645 g/m³ (15 to 75 g/ft³) by weight of platinum metal; and
a first cerium component; and characterized by
a second catalyst (6) in communication with the first catalyst (4), the second catalyst (6) comprising:
a second cerium component and optionally a platinum component, provided that when the second catalyst comprises a platinum component, the platinum component is present in an amount from 3.5 to 353 g/m³ (0.1 to 10 g/ft³) based on the weight of platinum metal,
wherein the second catalyst is located between the engine outlet and the first catalyst, and the second catalyst is supported on a separate substrate than the catalyzed filter, or
the catalyzed filter has an axial length extending from an upstream filter end to a downstream filter end, and the second catalyst is located for only part of the

axial length from the upstream end, between the engine outlet and the first catalyst."

Claim 2 of auxiliary requests 1 and 4 read as per claim 2 of the main request except before the first recitation of 'a platinum component' the following is inserted:

"a platinum group metal component which is".

Claim 2 of auxiliary requests 2 and 5 read as per claim 2 of the main request except before the first recitation of 'a platinum component' the following is inserted:

"a first platinum group metal component, wherein the first platinum group metal component is".

Claim 1 of auxiliary request 6 reads:

"An apparatus comprising:
a diesel engine (2) having an exhaust outlet (3);
a catalyzed filter (4) in communication with the exhaust outlet (3), the catalyzed filter (4) comprising a first catalyst supported on a filter substrate, the first catalyst comprising:
a first platinum group metal; and
a first cerium component; and characterized by
a second catalyst (6) in communication with the first catalyst (4), said second catalyst comprising:
a second cerium component
wherein the second catalyst is located between the engine outlet and the first catalyst, and the second catalyst is supported on a flow through honeycomb substrate."

Claim 1 of auxiliary requests 7 and 10 read as per claim 2 of the main request.

Claim 1 of auxiliary requests 8 and 11 read as per claim 2 of auxiliary request 1.

Claim 1 of auxiliary requests 9 and 12 read as per claim 2 of auxiliary request 2.

XI. The proprietor's arguments may be summarised as follows:

As regards claim 2 of the main request, the requirement of Article 123(2) EPC was met. Page 15, lines 15 to 16 of the application as filed disclosed a platinum group metal component, line 22 further defining this component as having a particular platinum metal content. The skilled person would thus not read the expression 'the platinum group metal is platinum' as implying that only platinum was present, rather that the platinum group metal comprised platinum. The disclosure thus defined the preferred amount of platinum present when both platinum and palladium were comprised in the first catalyst. Even if the examples of the patent disclosed just platinum, this did not limit the general disclosure of the patent to just that of the examples. These arguments also applied to the objections under Article 123(2) EPC to auxiliary requests 3, 7 and 10.

Claim 2 of auxiliary request 1 met the requirement of Article 123(2) EPC. The wording found on page 15, lines 15 to 16 and 21 to 24 was now included in the claim. The word 'comprising' was to be interpreted as in the remainder of the description such that just platinum was intended to be claimed. These arguments also applied to the objections under Article 123(2) EPC to auxiliary requests 4, 8 and 11.

Regarding auxiliary request 2, the wording adopted into claim 2 exactly reflected that of the disclosure on page 15. With a 'first' platinum group metal component now being claimed, further first platinum group metal components were excluded from the scope of the claim. These arguments also applied to the objections under Article 123(2) EPC to auxiliary requests 5, 9 and 12.

Although no objection arose against the attack starting from D11 as the closest prior art, even in combination with the teaching of D10, the inventive step attack starting from D18 should not be admitted into the proceedings. This attack constituted a change of OI's case and was not *prima facie* highly relevant as D18 disclosed only an oxidation catalyst with no mention of a soot filter.

Claim 1 of auxiliary request 6 involved an inventive step when starting from D11 and combining this with the teaching of D10. D11 disclosed an oxidation catalyst upstream of a soot filter, although with no specific catalyst on the soot filter. The objective technical problem could thus be seen as how to improve the catalytic activity of the system in D11 or expressed differently achieving a highly efficient catalyst system with the least amount of material. D10 could not provide a hint to the claimed solution since this disclosed the oxidation catalyst on the soot filter without an additional upstream oxidation catalyst; it was a hindsight approach to additionally place an oxidation catalyst on the soot filter of D11. It was particularly to be noted that a whole document, in this case D11, presented the starting point, not simply a specific example within that document; catalysing the soot filter with an oxidation catalyst was simply not foreseen in D11. Adding platinum to the soot filter in

addition to that already present on the oxidation catalyst was not necessarily beneficial to the system performance and certainly not cost effective, particularly when less platinum could provide advantageous performance of the catalyst as shown by comparing examples C2 and E4 in table III of the patent.

XII. The arguments of opponent OII may be summarised as follows:

The subject-matter of claim 2 of the main request did not meet the requirement of Article 123(2) EPC. Page 15, lines 21 to 24 disclosed a loading of platinum on the first catalyst only when platinum was the sole platinum group metal present. As claimed, this loading of platinum was possible even when further platinum group metals were present in the first catalyst which was not originally disclosed. Line 28 of page 15 further supported this view.

The amended wording in claim 1 of auxiliary request 1 did not exclude other platinum group metal components on the first catalyst and thus did not overcome the objection to the main request. The same applied to the subject-matter of claim 2 of auxiliary request 2.

The inventive step attack starting from D11 and combining this with D10 should be admitted as this was an important document combination for this objection before the opposition division. This combination had also been mentioned explicitly with reference to the opposition's decision in opponent OII's submission of 28 May 2013 in response to the proprietor's grounds of appeal. The subject-matter of claim 1 of auxiliary request 6 did not involve an inventive step starting

from D11 and combining this with the teaching of D10 in light of the problem to be solved. Starting from the embodiment with an oxidation catalyst upstream of an uncatalysed soot filter, the objective problem was to provide an appropriate soot ignition catalyst for regenerating the soot filter. Table III of the patent did not compare the claimed invention with D11 and so no advantage of the patent over D11 could be extracted therefrom. D10 disclosed a soot filter with platinum and cerium on it which taught the skilled person how to provide a soot filter which could be regenerated and thus how the system of D11 would be modified in order to solve the objective problem.

XIII. The arguments of the respondent may be summarised as follows:

The subject-matter of claim 2 of the main request and auxiliary requests 1 and 2 contravened Article 123(2) EPC since platinum group metals other than platinum were not excluded by the claim.

D18 should be admitted since this was *prima facie* relevant for the question of inventive step. The Board's preliminary opinion indicated that the arguments on file were unconvincing thus inviting a new attack as a reaction to the communication.

As regards claim 1 of auxiliary request 6, this did not involve an inventive step starting from D11 when combined with the teaching of D10. D11 already discussed a catalytically active soot filter on page 2, lines 24 to 27 in combination with an oxidation catalyst; D10 thus disclosed detail of an obvious catalyst composition on the soot filter of D11.

Reasons for the Decision

1. Main request

1.1 Article 123(2) EPC

The subject-matter of claim 2 fails to meet the requirement of Article 123(2) EPC.

1.1.1 The expression in claim 2 'the first catalyst comprising: a platinum component in an amount of 529 to 2645 g/m³ by weight of platinum metal' does not exclude further components, other than a platinum component being present in the first catalyst. A basis for this is lacking on page 15, lines 15 to 28 of the application as filed. The claimed amount of platinum component in the first catalyst is originally disclosed in the context of 'where the platinum group metal is platinum' (page 15, line 21) which, particularly through the use of the definite article 'the' and the singular verb form 'is', limits the disclosed range solely to the case where platinum alone is in the first catalyst. This reading of the expression on page 15, line 21 as disclosing only platinum in the first catalyst is further supported in line 28 where mixtures of platinum group metal components are addressed, directly juxtaposed to solely platinum in lines 21 to 24 or solely palladium in lines 24 to 28.

1.1.2 The proprietor's argument, that the skilled person would not read the expression 'the platinum group metal is platinum' as implying that only platinum was present, is not accepted. Whilst page 15, lines 15 to 17 without doubt indicates that the first catalyst can

include palladium and rhodium in addition to platinum, and indeed line 15 states that the first catalyst can 'comprise' at least one first platinum group metal component, the disclosure of the preferred amount of platinum in the first catalyst in lines 21 to 24 is restricted through the expression 'where the platinum group metal is platinum' to the case where only platinum is present in the first catalyst. The foregoing disclosure of further platinum group components being possible in the first catalyst does not change the unambiguous disclosure of the numerical range only being applicable when platinum alone is present.

- 1.1.3 The proprietor's argument that lines 21 to 24 of page 15 disclosed the preferred amount of platinum present when both platinum and palladium were comprised in the first catalyst is also not accepted. The expression at the start of this passage reading 'where the platinum group metal is platinum', as already found above, unambiguously concerns the situation where platinum alone is present in the first catalyst and would not be read by the skilled person as referring to situations in which components other than solely platinum were present in the first catalyst.
- 1.1.4 It is further noted that the proprietor declined to comment on the implication of the sentence 'mixtures of platinum group metal components can be used' in line 28 of page 15. This is clearly juxtaposed to the foregoing disclosure of only platinum being present in the first catalyst when the platinum component in the preferred amount is present or only palladium being present in a preferred amount. The disclosure in lines 21 to 24 of page 15 thus does not provide a basis for the first catalyst to include anything other than platinum when

this is present in the preferred amount.

- 1.1.5 With the subject-matter of claim 2 failing to meet the requirement of Article 123(2) EPC, the main request is not allowable.

2. *Auxiliary request 1*

2.1 *Article 123(2) EPC*

The subject-matter of claim 2 fails to meet the requirement of Article 123(2) EPC.

- 2.1.1 The expression 'the first catalyst comprising: a platinum group metal component which is a platinum component' in claim 2 fails to limit the claim's scope to just platinum being included in the first catalyst. As explained in point 1 above, page 15, lines 15 to 28 discloses the claimed preferred amount of platinum in the first catalyst solely when only platinum is present therein. A basis for the claimed amount of platinum component in the first catalyst is thus lacking.
- 2.1.2 It is further noted that the use of the indefinite article 'a' in relation to the claimed platinum group metal component also fails to limit the first catalyst to including just that one platinum group metal component. Line 21 on page 15 uses the definite article 'the' in relation to the platinum group metal, this being a further indicator that just the one platinum group metal, platinum, is disclosed to be present in the catalyst when the preferred amount of platinum component is in the disclosed range.
- 2.1.3 The proprietor's contention that the exact wording from page 15, lines 15 to 16 and 21 to 24 was now included

in the claim, and that the requirement of Article 123(2) EPC must therefore be met, is not accepted. The expression adopted into claim 2 is not a *verbatim* extraction from one location of the description as filed, but rather an amalgamation of wording from distinctly separated sentences in the paragraph from line 15 to 28 of page 15. As a consequence, the amalgamated wording in the claim in fact has a different meaning to that in the paragraph from which it has been taken: the paragraph on page 15 indicating a preferred amount of platinum component when platinum is the sole platinum group metal in the first catalyst; and the present claim 2 which includes the possibility of further platinum group metals to platinum being present in the first catalyst. A basis for the subject-matter of claim 2 is thus lacking.

- 2.1.4 The proprietor's argument, that the word 'comprise' in line 15 was to be interpreted as in the remainder of the description such that just platinum was intended to be claimed, does not alter the foregoing finding. When interpreting patent claims, legal certainty requires the term 'comprising' to have the broad meaning 'include' or 'contain' (see also T759/91, Reasons 2.2) i.e. to not be limited to just the listed components. The Board sees no reason to deviate from this common interpretation of the term 'comprise' in the present case. Moreover, the use of the term 'comprise' in the description does not contradict this normal interpretation described above, the instances referred to by the proprietor (e.g. page 15, lines 15, 29 and 33) each clearly not limiting the first catalyst to the listed components described as being 'comprised' therein.

2.1.5 The Board also finds that the expression 'the first catalyst comprising: a platinum group metal component which is a platinum component' in claim 2 does not exclude further components other than platinum from being present in the first catalyst. The proprietor again declined to comment on this observation during the oral proceedings.

2.1.6 The subject-matter of claim 2 thus fails to meet the requirement of Article 123(2) EPC. Auxiliary request 1 is thus not allowable.

3. *Auxiliary request 2*

3.1 *Article 123(2) EPC*

The subject-matter of claim 2 fails to meet the requirement of Article 123(2) EPC.

3.1.1 The expression adopted into claim 2 'the first catalyst comprising: a first platinum group metal component, wherein the first platinum group metal component is a platinum component' still fails to limit the scope of the claim to solely platinum being present in the first catalyst. The subject-matter of claim 2 thus lacks a direct and unambiguous basis due to page 15, lines 15 to 28 unambiguously disclosing the amount of platinum component solely when platinum alone is in the first catalyst (see the explanation regarding the main and first auxiliary requests *supra*).

3.1.2 The proprietor's argument that the wording adopted into claim 2 exactly reflected that of the disclosure on page 15 is not accepted. As was also the case in claim 2 of auxiliary request 1, the adopted wording is an amalgamation of wording from distinctly separated

sentences in the paragraph from line 15 to 28 of page 15. This has the consequence that the wording in the claim has a different meaning to that in the paragraph from which it has been taken: the paragraph on page 15 indicating a preferred amount of platinum component when platinum is the sole platinum group metal in the first catalyst; and claim 2 which includes the possibility of further platinum group metals to platinum being present in the first catalyst. A basis for the subject-matter of claim 2 is thus lacking in the referenced paragraph.

3.1.3 The proprietor's contention, that with a 'first' platinum group metal component now being claimed, further first platinum group metal components were excluded from the scope of the claim, is not persuasive in providing a basis for the claimed subject-matter. Even if further first platinum group metal components were indeed excluded by the wording of claim 2, the claim still allows any other component to be comprised in the first catalyst. As found in point 1 above, this is not the case in the paragraph from lines 15 to 28 of page 15, in which the amount of platinum component present in the first catalyst is disclosed only when platinum alone is included therein.

3.1.4 The proprietor's further argument that there was no difference between the use of the term 'comprising' in the claim and the description is not persuasive in accepting the alleged basis for the subject-matter of claim 2. As stated in point 2.1.4 above, the use of the term 'comprise' in the description does not contradict the interpretation normally used in patent claims. There is thus no reason apparent to diverge from the usual interpretation of this expression in the present

case.

3.1.5 The subject-matter of claim 2 thus fails to meet the requirement of Article 123(2) EPC. Auxiliary request 2 is thus not allowable.

4. *Auxiliary requests 3 to 5*

4.1 *Article 123(2) EPC*

The subject-matter of claim 2 of each of these requests corresponds in the portion relevant to the finding under Article 123(2) EPC to those of claim 2 of the main request and auxiliary requests 1 to 2 respectively. The proprietor submitted no additional arguments with respect to auxiliary requests 3 to 5 to those already submitted for the main request and auxiliary requests 1 to 2 respectively. The Board thus finds that the subject-matter of claim 2 of each of auxiliary requests 3 to 5 fails to meet the requirement of Article 123(2) EPC.

4.2 Auxiliary requests 3 to 5 are thus not allowable.

5. *Auxiliary request 6*

5.1 *Admittance of D18*

5.1.1 Although the Board exercised its discretion not to admit D18 in regard to attacks on inventive step, the reasons as to why the Board's discretion was so exercised is of no relevance for this decision, since each of the remaining requests are not allowable for other reasons.

5.2 *Admittance of inventive step attack D11 + D10*

5.2.1 In its letter of 20 January 2017, opponent OI for the first time raised an objection to the presence of an inventive step when considering both D11 and D10 in combination. This thus constituted a change to the party's complete case and the admittance of this attack was thus subject to the discretion of the Board as given in Article 13(1) RPBA.

5.2.2 In addition to the opposition division having based an objection of inventive step on this document combination, the attack starting from D11 and combining with the technical teaching of D10 appears *prima facie* to be highly relevant. D11 discloses all features of claim 1 save for the catalyst composition on the soot filter, D10 disclosing exactly the claimed catalyst composition on a soot filter. In addition it is noted that opponent OII did specifically refer to the attack based on D11 and D10 in its submission of 28 May 2013, albeit without expressly identifying what arguments it wished to base its attack on in this regard. During the oral proceedings before the Board the proprietor also withdrew its objection to the admittance of this inventive step attack.

5.2.3 The Board thus exercised its discretion to admit the inventive step attack starting from D11 combined with the teaching of D10.

5.3 *Inventive step (Article 56 EPC 1973)*

The subject-matter of claim 1 fails to meet the requirement of Article 56 EPC when starting from D11 as the closest prior art, when considering the teaching of

D10 in light of the objective problem to be solved.

- 5.3.1 D11 discloses the following features of claim 1, the reference signs in parentheses referring to D11:
An apparatus comprising:
a diesel engine (see page 1, lines 6 to 8) having an exhaust outlet;
a filter (6) in communication with the exhaust outlet;
a second catalyst (5; see page 4, lines 19 to 26) in communication with the filter (6), said second catalyst comprising:
a second cerium component (page 4, line 23)
wherein the second catalyst is located between the engine outlet and the first catalyst (see Fig. 1), and the second catalyst is supported on a flow through honeycomb substrate (page 4, line 26).

D11 thus fails to disclose the following features of claim 1:

- the filter comprises a first catalyst supported on a filter substrate, the first catalyst comprising:
a first platinum group metal; and
a first cerium component.

Based on these differentiating features, the objective technical problem may be seen as how to reduce the quantity of particulates in the exhaust stream.

- 5.3.2 Faced with this technical problem, the skilled person would refer to D10 which discloses a diesel soot filter (1) on which cerium oxide and platinum were provided as catalytically active elements (page 7, lines 5 to 9) with the technical effect of lowering the ignition temperature of soot adsorbed on the filter. In this respect reference is made to opponent OII's letter of 28 May 2013, lower half of page 8, discussing the

skilled person's general knowledge, in which lowering the ignition temperature of the soot is discussed, this being linked to reducing the risk of filter plugging and reducing the total quantity of particulates passing through the filter. This was notably not disputed by the proprietor. Therefore, combining this teaching from D10 with the apparatus known from D11 would lead the skilled person, without his becoming inventively active, to the claimed subject-matter whilst solving the objective technical problem.

5.3.3 The proprietor's argument, that D10 could not provide a hint as to how to modify D11 since D10 taught placing the oxidation catalyst on the soot filter with no upstream oxidation catalyst, is not accepted. Firstly, page 2, lines 24 to 27 of D11 envisages a catalytic soot filter in combination with an upstream oxidation catalyst such that the combination of such elements is hinted at in D11 alone. Secondly, the skilled person knows that platinum and cerium catalytic elements are highly effective in the treatment of particulates in the exhaust stream, as evidenced by embodiment 3 from page 6, line 45 to page 7, line 9 of D10. As a consequence, contrary to the proprietor's opinion, the skilled person would not be dissuaded from using the technical teaching of D10 to modify the apparatus for treating diesel exhaust known from D11, and indeed is taught to do so when wishing to solve the objective problem.

5.3.4 The proprietor's contention that catalysing the soot filter of D11 with cerium and platinum was motivated by a hindsight knowledge of the claimed invention is not accepted. As indicated in point 5.3.3 above, D11 itself teaches the option of catalysing the soot filter downstream of the oxidation catalyst, albeit without

specifically indicating the catalytic elements to be included. The skilled person thus additionally needs only to be guided to which specific catalysts are useful and suitable for use in to solving the objective problem. With particularly embodiment 3 of D10 disclosing the use of cerium and platinum in a soot filter in order to improve the burning characteristic of the soot adsorbed by the filter, and thus reduce the quantity of particulates emitted from the exhaust, it would be obvious for the skilled person to apply this teaching also to the known soot filter of D11 without any knowledge of the claimed invention.

5.3.5 The proprietor's argument that not just a specific example within a document, rather the entire document would present the starting point for an inventive step attack, is unconvincing for the present case. Whilst perhaps in the case of a specific example in a document contradicting the general teaching of a document such a stance could be followed, no such contradiction is seen in D11. D11 generally relates to the regeneration of diesel engine soot filters and discloses several exemplary embodiments of how such regeneration may be achieved. One of these embodiments is that disclosed on page 4, lines 20 to 34 comprising a oxidation catalyst upstream of an uncatalysed soot filter. This embodiment is not contradictory to the general teaching of D11 and thus presents a valid starting point for an inventive step attack.

5.3.6 The Board accepts the proprietor's indication that an oxidation catalyst on the soot filter is not foreseen in D11; such would, after all, render claim 1 not novel over D11. What is however not accepted is that the skilled person, in the light of the objective problem to be solved, would not be guided to providing platinum

and cerium on the soot filter of D11 through the technical teaching of D10.

5.3.7 The proprietor's argument that Table III of the patent indicated less platinum catalyst providing advantageous system performance rather than additional platinum on the soot filter, as required when combining D11 and D10, is also not accepted. Whilst comparative example C2 in Table III does concern an oxidation catalyst upstream of an uncatalysed soot filter, significant details of this example differ from the embodiment in D11 used as the starting point for the inventive step attack (not least the loading of platinum on the oxidation catalyst). The comparison made by the proprietor with E4 in Table III, arguing that essentially similar catalyst performance was achieved with significantly lower platinum loading, is thus not seen as indicative of a similar performance improvement of E4 with respect to D11. Lacking this comparison with D11 itself, no evidence of a benefit of E4 over D11 can be seen. Moreover, it is noted that the loading of platinum on the catalysts is not claimed, such that issues relating to the alleged benefit of lower platinum loading in the catalysts of the opposed patent do not support the presence of inventive step.

5.3.8 With similar reasoning to point 5.3.7 above, the proprietor's argument regarding a cost benefit due to lower platinum loading in the claimed apparatus when compared to D11 must fail. The loading of platinum on the catalysts has not been claimed such that any alleged cost benefit relating to less platinum being required relative to D11 (for which anyway comparative data is entirely lacking) cannot provide a valid basis for the presence of an inventive step to be recognised.

5.3.9 For the above reasons, the subject-matter of claim 1 is found not to involve an inventive step (Article 56 EPC 1973) when starting from D11 and combining this with the teaching of D10 in light of the problem to be solved. Auxiliary request 6 is thus not allowable.

6. *Auxiliary requests 7 to 12*

6.1 *Article 123(2) EPC*

6.2 The subject-matter of claim 1 of each of these requests corresponds in the portion relevant to the finding under Article 123(2) EPC *supra* to those of claim 2 of one of the main request and auxiliary requests 1 and 2. The proprietor submitted no additional arguments with respect to auxiliary requests 7 to 12 to those already submitted for the main request and auxiliary requests 1 and 2. The Board thus finds that the subject-matter of claim 1 of each of auxiliary requests 7 to 12 fails to meet the requirement of Article 123(2) EPC.

6.3 Auxiliary requests 7 to 12 are thus not allowable.

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:



M. H. A. Patin

M. Harrison

Decision electronically authenticated