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**Datasheet for the decision
of 24 June 2019**

Case Number: T 1287/15 - 3.3.05

Application Number: 02748109.2

Publication Number: 1446569

IPC: F02M25/08, B01D53/04

Language of the proceedings: EN

Title of invention:

METHOD, SYSTEM AND CANISTER FOR REDUCING EMISSIONS FROM
EVAPORATIVE EMISSIONS CONTROL SYSTEMS

Patent Proprietor:

WestRock MWV, LLC

Opponents:

Fabbrini, Cristina
Delphi France SAS

Headword:

Evaporative emissions/WestRock

Relevant legal provisions:

EPC Art. 83, 100(b)

Keyword:

Sufficiency of disclosure - (no)

Decisions cited:

T 0172/99, T 0231/01, G 0004/95

Catchword:



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Case Number: T 1287/15 - 3.3.05

D E C I S I O N
of Technical Board of Appeal 3.3.05
of 24 June 2019

Appellant:
(Patent Proprietor)

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Decision under appeal:

**Decision of the Opposition Division of the
European Patent Office posted on 22 April 2015
revoking European patent No. 1446569 pursuant to
Article 101(3) (b) EPC.**

Composition of the Board:

Chairman	E. Bendl
Members:	S. Besselmann
	R. Winkelhofer

Summary of Facts and Submissions

- I. The present appeal lies from the decision of the opposition division, based on two oppositions, to revoke European patent No. EP 1 446 569. This patent concerns a method, system and canister for reducing emissions from evaporative emissions control systems.
- II. The opposition division's decision was based on the patent in amended form, namely on the set of claims filed on 11 February 2014. The opposition division found that the patent lacked sufficiency of disclosure in view of the parameter "incremental adsorption capacity" present in all independent claims.
- III. During the opposition proceedings the parties relied, *inter alia*, on the following documents:
- | | |
|--------|--|
| D2/D2a | Experimental data regarding incremental adsorption capacity measurements provided by opponent I |
| D15 | ASTM (D5228-92), Standard Test Method for Determination of the Butane Working Capacity of Activated Carbon, 2005 |
| D35 | Graph provided by the proprietor, showing BWC (ASTM) as a function of incremental butane capacity |
- IV. The patent proprietor (appellant) appealed this decision, requesting, *inter alia*, that the patent be maintained in amended form on the basis of the claims of 11 February 2014, dealt with by the opposition division in its decision. The statement of grounds of appeal included experimental data illustrating adsorption measurements. In addition, documents B1-B10

were filed in support of the arguments regarding sufficiency of disclosure:

- B1 Milan Smíšek et al., "Active Carbon, Manufacture, Properties and Applications", Elsevier publishing company, Amsterdam-London-New York, 1970, pages 353-375
- B2 Sydney Ross et al., "On physical adsorption", Interscience Publishers, New York-London-Sydney, 1964, pages 29-78
- B3 John W. Hassler, "Activated Carbon", Chemical publishing company, New York, 1963, pages 300-310
- B4 J. Rouquerol et al., "A critical assessment of quasi-equilibrium gas adsorption techniques in volumetry, gravimetry or calorimetry", Elsevier Science Publishers B.V., Amsterdam, 1988, pages 67-76
- B5 Figure 3 and claim 1 of the patent as granted
- B6 Graphs of samples A-E
- B7 US 6,811,717 B2 (2 November 2004)
- B8 US 6,215,037 B1 (10 April 2001)
- B9 EP 0 395 353 A2 (31 October 1990)
- B10 Micromeritics ASAP2020 procedure

V. The appellant submitted further documents B11-B13 on 16 June 2017:

- B11 Johnson, P.J., Setsuda, D.J., Williams, R.S., "Activated Carbon for Automotive Applications", in "Carbon Materials for Advanced Technologies", Burchell, T.C. (Ed.), Pergamon, Oxford, 1999, pages 235-267 (chapter 8)
- B12 US 6,334,316 B1 (1 January 2002).

B13 Ion Edeleanu, "The recovery of gasoline from field and refinery gases with special reference to the Bayer charcoal process", J. Instit. Petrol., 1928, 14, pages 296-317

VI. The appellant made additional submissions on 27 February 2019, including an excerpt from "Perry's Chemical Engineers' Handbook", 7th ed, 1998, section 16, pages 16-1 to 16-16 (hereinafter B14).

VII. On 22 May 2019, the appellant filed a written declaration by Prof. David A. Rockstraw (hereinafter B15) and requested that Prof. Rockstraw be allowed to make oral submissions during the oral proceedings.

VIII. With its submissions dated 14 June 2019 the appellant presented auxiliary requests 2 and 3 [remark by the board: there is no auxiliary request 1 on file any longer].

IX. The independent claims of the main request (claims of 11 February 2014) read as follows:

Claim 1: *"A method for reducing fuel vapor emissions in automotive evaporative emissions control systems comprising the steps of contacting the fuel vapor with an initial adsorbent volume having incremental adsorption capacity at 25°C of greater than 35 g n-butane/L between vapor concentrations of 5 vol% and 50 vol% n-butane and at least one subsequent adsorbent volume having an incremental adsorption capacity of less than 35 g n-butane/L between vapor concentrations of 5 vol% and 50 vol% n-butane."*

Claim 16: *"An evaporative emissions control system for a vehicle comprising, in combination, a fuel tank for*

storing a volatile fuel, an engine having an air induction system and adapted to consume the fuel, a canister containing an initial volume of fuel vapor adsorbent material for temporarily adsorbing and storing fuel vapor from the tank, a conduit for conducting fuel vapor from the tank to a canister vapor inlet, a fuel vapor purge conduit from a canister purge outlet to the induction system of the engine, and a vent/air opening for venting the canister and for admission of air to the canister during operation of the engine induction system, wherein the canister defines a fuel vapor flow path via the canister vapor inlet through the initial volume of vapor adsorbent within a first region of the canister before routing vapor-laden air through at least one subsequent volume of vapor adsorbent material toward the vent/air opening, and an air flow path through a subsequent volume of adsorbent within a second region of the canister at the vent/air opening and the first region at the purge outlet, such that fuel vapor formed in the tank flows through the vapor inlet into the initial volume of adsorbent where it is adsorbed and, during operation of the engine induction system, ambient air flows in a path to and through the vent/air opening and along the air flow path in the canister through the initial volume and the purge outlet to the induction system of the engine, the flow of air removing a portion of the adsorbed fuel vapor but leaving a residue of fuel in the initial volume, wherein at least one subsequent volume of vapor adsorbent material comprises a volume of 1% to 100% of the first volume and is located either inside of the canister within the second region thereof or outside of the canister, and wherein the initial volume of vapor adsorbent material is characterized by an incremental adsorption capacity at 25°C of greater than 35 g n-butane/L between vapor

concentrations of 5 vol% and 50 vol% n-butane wherein the at least one subsequent volume of vapor adsorbent material is characterized by an incremental adsorption capacity at 25°C of less than 35 g n-butane/L between vapor concentrations of 5 vol% and 50 vol% n-butane."

Claim 28: "One or more evaporative emissions control canisters for use in reducing fuel vapor emissions in automotive evaporative emissions control systems comprising an initial adsorbent volume having incremental adsorption capacity at 25°C of greater than 35g n-butane/L between vapor concentrations of 5 vol% and 50 vol% n-butane and comprising at least one subsequent adsorbent volume having an incremental adsorption capacity of less than 35 g n-butane/L between vapor concentrations of 5 vol% and 50 vol% n-butane wherein the initial adsorbent volume and the at least one subsequent adsorbent volume are located within a single automotive evaporative emission control canister or wherein the initial adsorbent volume and at least one subsequent adsorbent volume are located in separate canisters that are connected to permit sequential contact by fuel vapor."

Apart from the numbering the independent claims of auxiliary requests 2 and 3 are identical to those of the main request.

- X. According to the appellant, the term "incremental adsorption capacity" means the difference between the adsorption capacity of the adsorbent at 5 vol% n-butane and its adsorption capacity at 50 vol% n-butane, measured at the indicated temperature of 25 °C.

The appellant presents the following two principal lines of reasoning as to why the skilled person would have derived this meaning from the patent in suit:

(a) Figure 3 is to be taken in conjunction with the table and the explanation of the invention in particular in paragraphs [0011], [0053] and [0057] of the patent specification. The skilled person would have derived from this disclosure that the "incremental adsorption capacity" could be determined by the following steps:

1) taking the adsorption isotherm of the adsorbent at 25 °C, with the isotherm properties being defined in terms of volumetric capacity,

2) defining the starting point (5 vol%) and the end point (50 vol%) of the increment, and

3) reading out the adsorbed mass corresponding to the starting point and the end point of the increment on the ordinate, which is given in g/L, and determining the difference between the two.

(b) Claim 1 has to be read with a mind willing to understand.

The language of claim 1 is self-explanatory and does not require any explicit definition of the term "incremental adsorption capacity". This term defines an "incremental" value of the adsorption capacity, with the boundaries of said increment (5 vol% and 50 vol% n-butane) being indicated in claim 1.

Reference to figure 3 is not necessary to gain this understanding, but confirms what the skilled person would already have understood.

XI. Additional arguments presented by the appellant, as far as relevant for the present decision, may be summarised as follows:

Even though it is only necessary to determine the adsorption capacities at the two points of interest, namely 5 vol% and 50 vol% n-butane, most techniques involve measuring the full adsorption isotherm, or a range of concentrations.

The "incremental adsorption capacity" is a clear and readily understood extension of the well-known parameter of adsorption capacity. The present case is therefore not comparable with T 172/99.

It is not necessary to specify a measuring method either, because adsorption measurements are generally known and all methods are equivalent when performed under good laboratory practice.

The present case is similar to T 231/01 because the skilled person would face no difficulty in measuring the "incremental adsorption capacity". The introduction of this parameter should therefore be allowed.

Sufficiency of disclosure is also demonstrated in that respondent I was able to reproduce the invention, as evidenced by D2/D2a.

XII. The respondents' arguments as far as relevant for the present decision may be summarised as follows:

"Incremental adsorption capacity" is an unfamiliar parameter. The patent in suit neither defines the parameter nor provides a measuring method. Its meaning is therefore unknown, and interpretations other than the one used by the appellant are possible. The "incremental adsorption capacity" parameter may for example refer to any smaller increment between 5 vol% and 50 vol% n-butane, or multiple increments. There is also no pointer to derive the meaning of this parameter from figure 3. The considerations set out in T 172/99 apply to the present case. Accordingly, the definition of the invention in terms of the "incremental adsorption capacity" parameter leads to a lack of sufficiency of disclosure.

- XIII. The appellant requests that the decision under appeal be set aside and the patent be maintained on the basis of the claims of 11 February 2014 (main request) or, alternatively, on the basis of one of auxiliary requests 2 and 3 of 14 June 2019.

The respondents request that the appeal be dismissed.

Reasons for the Decision

Admission of documents and oral submissions

1. Admission of documents B1-B10
 - 1.1 Documents B1-B10 were filed with the statement of grounds of appeal, in support of the arguments regarding sufficiency of disclosure.

1.2 Admitting documents which could have been filed in the first-instance proceedings is at the board's discretion (Article 12(4) RPBA). In the present case, documents B1-B6 and B10 could be admitted into the proceedings, but not B7-B9, in view of the following considerations:

(a) Admitted documents B1-B6 and B10:

B1-B4 reflect common general knowledge.

B5 reproduces figure 3 and claim 1 of the patent in suit and thus does not constitute any new fact or evidence.

B6 (adsorption isotherms of samples A-E) and B10 (measuring procedure) form part of the experimental data provided in the statement of grounds of appeal. They are to be seen as a reaction to the course of the opposition proceedings, and in particular to the opposition division's objection that the appellant had not provided any experimental data itself (point 6.2.6 of the decision).

(b) Disregarded documents B7-B9

B7-B9 are patent documents / a patent application. They were allegedly intended to show that valid adsorption isotherm curves can be obtained even if there is no detailed description of a measuring method.

B9 relates to a method of preparing activated or activatable carbon. The appellant relies specifically on the part of B9 describing that CCl_4 (CTC) isotherms were measured (p. 10, l. 26-30).

However, on a *prima facie* level, the general disclosure of this document, having particular regard to the level of detail deemed necessary by the authors of B9 in the specific context of CCl₄ isotherms measured for the purpose of assessing changes to the preparation method (p. 3, l. 42-46 in conjunction with p. 3, l. 4-5 and the examples), is irrelevant for determining the "incremental adsorption capacity" in the context of the patent in suit.

B7 and B8 are even less relevant because they do not relate to the technical field in question (B7: magnetorheological compositions; B8: adsorbents for separating an unsaturated hydrocarbon from a mixture). Moreover, B7 is not prior art.

2. Admission of documents B11-B13

2.1 Documents B11-B13 were filed on 16 June 2017, after the statement of grounds of appeal. Admitting them is at the board's discretion (Article 13(1) RPBA).

2.2 B12 derives from an international patent application published on 23 September 1999, but B12 itself was only published on 1 January 2002 and hence after the earliest priority date of the patent in suit.

2.3 The appellant provided only general comments regarding the contents of B11-B13 (submission of 16 June 2017, point 2 "Admissibility of documents", last five paragraphs), but failed to clearly state how the documents, in particular B11 and B13, were to complement its previous arguments, and did not even

rely on them when addressing "sufficiency of disclosure" (point 6, starting on p. 4 of the submission).

Document B12 may be taken to have been cited to establish the skilled person's understanding of the "incremental adsorption capacity" as the "differential adsorption capacity" determined in B12 (p. 3, first full paragraph of the submission of 16 June 2017).

However, B12 is a patent document and as such does not normally reflect the skilled person's common general knowledge. The skilled person would have had no reason to consult B12 in order to establish the meaning of the "incremental adsorption capacity" parameter used in the patent in suit, irrespective of whether the "differential adsorption capacity" and "incremental adsorption capacity" are indeed identical, and irrespective of whether B12 is prior art.

- 2.4 These documents were therefore not considered in the proceedings (Article 13(1) RPBA).

3. Admission of document B14
 - 3.1 B14 was filed after oral proceedings had been arranged. Therefore, admitting it is at the board's discretion (Article 13(1) and (3) RPBA). The reason for the late filing of the document was stated as being the change of the representative.

 - 3.2 B14 is cited to show that "adsorption capacity" is a known concept. B14 includes a table of physical properties of adsorbents, indicating, *inter alia*, a "sorptive capacity kg/kg (dry)".

3.3 However, it is not clear how such a list of "sorptive capacity" values can contribute to the understanding of the "incremental adsorption capacity" parameter. Moreover, documents illustrating common general knowledge in the field of adsorption are already on file (see e.g. B1-B4). The change of the representative is not an acceptable reason for the late filing of the document. Nor is the document particularly relevant, on a *prima facie* basis.

3.4 Document B14 was therefore not considered in the proceedings (Articles 13(1) and (3) RPBA).

4. Admission of B15

4.1 B15 was filed on 22 May 2019. The respondents state that they were made aware of this filing only on 5 June 2019, less than three weeks before the date of the oral proceedings, and contend that B15 should not be taken into account.

4.2 B15 is an expert's declaration. According to the appellant, the public, redacted version of B15 did not become available until 21 May 2019.

However, as argued by the respondents, an expert opinion could have been obtained any earlier time, for instance in reply to the opposition division's decision. The document has not been submitted as a reaction to the course of the proceedings. Hence, there is no valid reason for the late filing.

4.3 Moreover, the appellant explicitly stated that B15 was meant, *inter alia*, to introduce the teachings from

other documents summarised and referenced in B15. Consequently, it might not be possible to provide a full reply to the document without also considering these referenced documents, which are unavailable.

4.4 Document B15 was therefore not considered in the proceedings (Article 13(1) and (3) RPBA).

5. Oral submissions by an accompanying person

5.1 The appellant confirmed that this request was no longer relevant, since B15 was not admitted.

Main request

6. Sufficiency of disclosure

6.1 *Relevance of "incremental adsorption capacity"*

6.1.1 The patent in suit discloses a method, system and canister for reducing emissions from evaporative emissions control systems, and more specifically for reducing diurnal breathing loss emissions (paragraph [0011]).

6.1.2 It was argued that providing adsorbent volumes having the claimed incremental adsorption capacities of respectively greater than and less than 35 g n-butane/L was essential for reducing diurnal breathing loss emissions ("the inventive concept", "is pertinent", "has unexpected advantageous effects"; see the statement of grounds of appeal, point 4, 6th, 9th, and 13th paragraphs).

6.1.3 In fact, the adsorbent volumes used in the claimed method (system, canister) are defined solely by reference to this parameter, which is therefore crucial for carrying out the invention.

6.2 *Unfamiliar nature of the "incremental adsorption capacity" parameter*

6.2.1 According to the appellant, the "incremental adsorption capacity" constitutes a clear and readily understood extension of the - in its view - notoriously well-known parameter of "adsorption capacity".

6.2.2 The board does not agree. The patent in suit uses the composite term "incremental adsorption capacity", which in the first place needs to be considered as a whole.

The patent in suit itself indicates various standard measuring methods available in order to characterise typical carbons for evaporative emission canisters; see paragraph [0005]. These methods do not relate to an "incremental adsorption capacity". Furthermore, the appellant has cited numerous documents concerning adsorption measurements, but has not presented a single piece of prior art mentioning an "incremental adsorption capacity".

6.2.3 The "incremental adsorption capacity" therefore constitutes a newly formulated and, hence, unfamiliar parameter.

6.3 *Explanations regarding the "incremental adsorption capacity" parameter in the patent in suit*

6.3.1 The patent in suit neither defines the "incremental adsorption capacity" directly, nor does it describe a measuring method.

6.3.2 The board does not concur with the appellant's first line of reasoning, according to which the skilled person would have derived the stated three steps for measuring the "incremental adsorption capacity" from the patent in suit (see facts and submissions, point X.(a)).

6.3.3 The first step relies on the assumption that the skilled person would have consulted adsorption isotherms, as illustrated in figure 3, to determine the "incremental adsorption capacity".

However, the patent in suit neither gives any direct instructions to determine the "incremental adsorption capacity" by measuring the adsorption isotherm, nor does it link this parameter to figure 3.

It merely teaches that the preferred adsorbent exhibits a flat or flattened adsorption isotherm (paragraph [0011]) and that a common feature of all the approaches is a vent-side adsorbent with a relatively flat-shaped isotherm (paragraph [0053]), without any explicit link to the "incremental adsorption capacity". On the contrary, paragraph [0011] states that "*[o]n the vent-side, the preferred adsorbent volume exhibits a flat or flattened adsorbent isotherm on a volumetric basis in addition to certain characteristically desirable adsorptive properties across broad vapor concentrations, specifically relatively low incremental*

capacity at high concentration vapors...". This wording ("*in addition to*") suggests that the "incremental adsorption capacity" constitutes another property different from a flat isotherm shape.

Paragraph [0057] refers to both figure 3, showing adsorption isotherms, and the "incremental adsorption capacity" parameter. Specifically, it states: "*It is important to note that, as shown in this figure, the isotherm properties must be defined in terms of volumetric capacity. On this basis, the preferred low-bleed adsorbent portion will have an incremental n-butane capacity of less than about 35 g/liter between 5 and 50 volume percent n-butane vapor concentration*". However, this passage only vaguely associates the "incremental adsorption capacity" with isotherm properties, it is neither stated that the "incremental adsorption capacity" is to be determined by measuring the adsorption isotherm, nor is there any explanation as to how exactly the "incremental adsorption capacity" relates to the isotherms.

The patent in suit therefore does not instruct the skilled person to carry out step 1) formulated by the appellant (see facts and submission, X.(a)).

- 6.3.4 Contrary to what is stated in step 2) identified by the appellant (see facts and submissions, point X.(a)), the patent in suit does not define any increment in terms of its starting point and end point. It does not clearly follow from the expression "incremental adsorption capacity at 25 °C of greater than 35 g n-butane/L between vapor concentrations of 5 vol% and 50 vol% n-butane" that the term "incremental" in fact means a single "increment" which spans the entire range from 5 vol% to 50 vol% n-butane. For instance, it might

alternatively mean multiple increments, or a single smaller increment, within the range. Hence, there is no disclosure of step 2) in the patent in suit.

Moreover, there would have been no need to measure the entire isotherm curve in order to determine the difference between two measurements (i.e. between 5 vol% and 50 vol% n-butane). Even if measurements are routinely performed at a range of concentrations, as argued by the appellant, the chosen representation in form of isotherm curves without even highlighting the two specific values of interest would not have constituted a pointer for the skilled person that the expression "incremental adsorption capacity" merely referred to the difference between two specific measurements.

In this regard, the board does not agree with the appellant that figure 3 would have led the skilled person to identify distinct measuring points in form of kinks in the adsorption curve. The curves are presented as solid lines, without distinguishing any actual measuring points and interpolated segments.

6.3.5 Step 3) as identified by the appellant depends on step 2); without identifying the "increment" as required in step 2), the skilled person would not have been in a position to carry out step 3).

6.3.6 According to the appellant's second line of reasoning, the language of claim 1 would have been self-explanatory. Specifically, the appellant stresses that the term "incremental adsorption capacity" is not used in isolation but forms part of the phrase "incremental adsorption capacity at 25°C of greater than [less than] 35 g n-butane/L between vapor concentrations of 5 vol%

and 50 vol% n-butane", which fully defines the increment in terms of its boundaries.

- 6.3.7 The board does not agree that no definition of the "incremental adsorption capacity" would have been required. This expression has not been used in the available prior art, and so its meaning is not common general knowledge. Furthermore, as mentioned, an "incremental adsorption capacity at 25 °C of greater than 35 g n-butane/L between vapor concentrations of 5 vol% and 50 vol% n-butane" would not necessarily have been understood to mean a single "increment" from 5 vol % to 50 vol% n-butane, but may alternatively mean multiple increments within the range or a smaller increment, for example.

6.4 *Lack of sufficiency of disclosure in view of the "incremental adsorption capacity" parameter*

- 6.4.1 On the basis of the considerations set out under points 6.1 and 6.2, this is a case where the claimed subject-matter relies on a newly formulated and, hence, unfamiliar parameter, and is in this regard similar to T 172/99.

The present case is not comparable with T 231/01, in which the relevant parameters were sufficiently described by reference to their measuring methods (see T 231/01, points 3.3-3.5 of the reasons).

- 6.4.2 The appellant argued that the present case was not comparable with T 172/99 because it was generally known to measure adsorption capacities. The board does not agree. The "incremental adsorption capacity" constitutes an unfamiliar parameter for the reasons

indicated (see point 6.2). The considerations set out in the catchword of T 172/99 are also relevant for the present case, even if the principal issue is the correct understanding of the notion "incremental adsorption capacity" and not so much the availability of a measuring method. In fact, the lack of a definition of the "incremental adsorption capacity" is a more fundamental issue than the provision of a measuring method, because in the present case the question whether the parameter can be reliably measured only arises once its meaning has been understood.

6.4.3 In T 172/99, it was held that *"[i]n the case of claimed subject-matter relying on a newly formulated and, hence, unfamiliar parameter to define the solution of a technical problem by which a relevant effect is achieved, the applicant or patentee, who has the duty of making a full and fair disclosure of his invention to the public (Article 83 EPC), is under a particular obligation to disclose all the information necessary reliably to define the new parameter not only (i) in a formally correct and complete manner such that its values can be obtained by a person skilled in the art without undue burden, but also (ii) in a manner which reliably retains the validity of the parameter for the solution of the technical problem for the application or patent in suit as a whole in the sense that the values routinely obtained will not be such that the claimed subject-matter covers variants incapable of providing the relevant effect or, therefore, of solving the associated technical problem."* (catchword).

6.4.4 Applying these considerations to the present case, the appellant was therefore under a particular obligation to disclose all the information necessary to reliably

define the incremental adsorption capacity parameter in the patent in suit.

6.4.5 This obligation applies all the more to the present case, in which an established parameter "effective butane working capacity" (BWC) was available. According to the information provided by the appellant itself, the "incremental adsorption capacity" is directly proportional to the BWC; see D35 (see statement of grounds of appeal, page 5, second paragraph). Hence, the invention could equally have been defined in terms of the BWC, for which a standard measuring method exists (D15; also cited in paragraph [0005] of the patent in suit). The appellant has nevertheless chosen to introduce the new parameter.

6.4.6 In the present case, in which the patent introduces the notion of an "incremental adsorption capacity", the appellant's obligation entails the even more fundamental requirement to clearly define its meaning in the first place.

6.4.7 However, as becomes apparent from considering the appellant's arguments (see point 6.3), there is no explicit teaching as to the meaning of this parameter in the patent in suit, nor does the patent in suit lead the skilled person towards the intended understanding.

6.4.8 It is therefore left entirely to the skilled person to infer from the patent in suit what the patentee intended to express by introducing the notion of "incremental adsorption capacity". This cannot be considered to meet the patentee's particular obligation identified in T 172/99.

6.4.9 Moreover, even if the skilled person had come to the assumption that "incremental adsorption capacity" might mean the difference between adsorption capacities, they would inevitably have been left with doubts, because there might have been another - possibly as yet unknown - meaning, considering that a patent's very purpose is to disclose a previously unknown invention.

The board does not share the appellant's view that the patent in suit would have enabled the skilled person to verify an assumed meaning of the "incremental adsorption capacity" by comparing the "incremental adsorption capacity" values in the table with figure 3. Not only is there no pointer towards this comparison, but the presentation of figure 3 as such creates doubts because it neither highlights the values of interest (namely the values obtained at 5 vol% and 50 vol% n-butane) nor uses the same term "adsorption capacity". Moreover, figure 3 does not allow a precise reading of the values. In addition, it is not known how the adsorption isotherms in figure 3 have been measured.

6.4.10 In the present case, the skilled person would therefore have been unable to conclusively and positively verify if an assumed interpretation is correct. Doubts about the meaning of "incremental adsorption capacity" would inevitably have remained.

Contrary to the appellant's arguments, this is not a question of interpreting the disclosure with a mind willing to understand, but a question of whether the necessary teaching was provided in the first place.

6.4.11 Without knowing the meaning of "incremental adsorption capacity", the skilled person would have been unable to provide the adsorbent volumes for the claimed method

(system, canister) since these are solely defined in terms of their "incremental adsorption capacity", and so would have been unable to carry out the invention.

- 6.4.12 Respondent I was able to provide incremental adsorption capacity measurement results (D2, D2a). While the appellant contested the validity of these measurements in the statement of grounds of appeal (see the paragraph bridging pages 22 and 23), the appellant subsequently relied on these measurements as proof that the invention could have been reproduced.

However, these measurements are not prior art and they were taken in order to compare the claimed subject-matter with the prior art. For this purpose, respondent I was obliged to select an interpretation of the "incremental adsorption capacity" parameter. Even if it selected the "correct" interpretation in the sense of appellant's intention, this mere fact fails to prove that the skilled person reading the patent in suit would not have considered any other possible interpretation when reading the original patent application on its priority date.

- 6.4.13 The board therefore concludes that the patent in suit in form of the main request does not comply with the requirements of sufficiency of disclosure (Article 83 EPC in combination with Article 100(b) EPC).

Auxiliary requests 2 and 3

7. Admissibility

7.1 The auxiliary requests were filed on 14 June 2019, ten days before the oral proceedings. The respondents requested that these requests not be admitted.

7.2 The auxiliary requests contain the same independent claims as the main request, relating to a method, a system, and a canister. The appellant explained that the amendments were meant to address objections under Article 123(2) EPC, not sufficiency of disclosure.

7.3 It is therefore *prima facie* apparent that the auxiliary requests are unsuitable to overcome the objections for lack of sufficiency of disclosure. For this reason, and in view of the late filing of these requests, the board exercised its discretion under Article 13(1) and (3) RPBA not to admit these auxiliary requests into the appeal proceedings.

Order

For these reasons it is decided that:

1. The appeal is dismissed.

The Registrar:

The Chairman:



C. Vodz

E. Bendl

Decision electronically authenticated