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**Datasheet for the decision
of 30 November 2021**

Case Number: T 1459/18 - 3.4.03

Application Number: 12738830.4

Publication Number: 2668660

IPC: H01J49/26, H01J49/24, H01J49/06

Language of the proceedings: EN

Title of invention:
A MASS SPECTROMETRY APPARATUS

Applicant:
Analytik Jena GmbH

Headword:

Relevant legal provisions:
EPC Art. 56, 113(1)
RPBA 2020 Art. 11
RPBA Art. 12(4)

Keyword:

Inventive step - (no) - obvious solution

Right to be heard - opportunity to comment (yes)

Remittal - (no)

Late-filed request - admitted (no) - request clearly allowable
(no)

Decisions cited:

T 0230/01, T 0428/15, T 1343/12, T 0991/01

Catchword:



Beschwerdekammern
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Case Number: T 1459/18 - 3.4.03

D E C I S I O N
of Technical Board of Appeal 3.4.03
of 30 November 2021

Appellant: Analytik Jena GmbH
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Decision under appeal: **Decision of the Examining Division of the
European Patent Office posted on 18 January 2018
refusing European patent application No.
12738830.4 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman G. Eliasson
Members: J. Thomas
D. Prietzel-Funk

Summary of Facts and Submissions

- I. The appeal is against the decision of the examining division refusing European patent application No. 12 738 830 on the grounds that neither the main request nor one of the auxiliary requests 1 to 3 fulfilled the requirements of Article 52(1) EPC in combination with Article 56 EPC.
- II. At the end of the oral proceedings before the Board the appellant requested
- that the decision under appeal be set aside and
 - that a patent be granted based on the claims of the main request or
 - on auxiliary request 1 or 2 filed with the notice of appeal and underlying the decision under appeal, or
 - on auxiliary request 3 or 4 filed with the statement setting out the grounds of appeal, where auxiliary request 3 was filed for the first time and auxiliary request 4 was the former auxiliary request 3.

The appellant further requested as filed via e-mail during the oral proceedings before the Board (held by videoconference) that the case be remitted to the examining division for further prosecution based on a certified translation of document D2 (see below).

- III. The following documents are referred to in the following:
- D1: US 6 586 730 B1;
D2: JP 2008 192519 A;

D2-translated: machine translation of document D2 as introduced in the proceedings by the examining division with its communication dated 13 September 2016.

IV. The wording of claim 1 of the main request reads as follows:

*"A mass spectrometry apparatus, comprising:
an ion source (12) arranged in a substantially horizontal orientation and from which a quantity of ions may be sourced, wherein the ions from the ion source (12) are extracted and arranged to flow along a first intended path of travel (16A);
an ion filter device (20) arranged for receiving a stream of ions for filtering thereof;
and
an ion guide (26) arranged so as to guide ions sourced from the ion source (12) toward the ion filter device (20), wherein the ions receivable by the ion filter device (20) are arranged to flow along a second intended path of travel (16B) so as to be received by an ion analysis device (44) for spectrometry analysis; wherein the distance traveled by ions along the first intended path of travel (16A) is substantially smaller than the distance traveled by ions along the second intended path of travel (16B)
and wherein the flow of ions moving along the second intended path of travel is directed with the action of gravity or against the action of gravity,
so that the profile of the apparatus is reduced so as to minimise the effective footprint of the apparatus;
wherein the ion filter device (20) comprises a mass analyzer (36) arranged to receive a stream of ions from the ion guide (26) for filtering purposes, and*

wherein the mass analyzer (36) is a quadrupole mass analyzer having four spaced apart but parallel metallic rods."

V. The wording of claim 1 of auxiliary request 1 differs from claim 1 of the main request by one of the cited features as follows: "*and wherein the flow of ions moving along the second intended path of travel is directed ~~with the action of gravity or against the action of gravity,~~"*

VI. The wording of claim 1 of auxiliary request 2 reads as follows (underlining and strikethrough by the Board indicating the amendments compared to claim 1 of auxiliary request 1):

*"A mass spectrometry apparatus, comprising:
an ion source (12) arranged in a substantially horizontal orientation and from which a quantity of ions may be sourced, wherein the ions from the ion source (12) are extracted and arranged to flow along a first intended path of travel (16A);
an ion filter device (20) arranged for receiving a stream of ions for filtering thereof;
and
an ion guide (26) arranged so as to guide ions sourced from the ion source (12) toward the ion filter device (20), wherein the ions receivable by the ion filter device (20) are arranged to flow along a second intended path of travel (16B) so as to be received by an ion analysis device (44) for spectrometry analysis;
wherein the mass spectrometry apparatus further comprises a housing (32) within which at least the ion source (12), the ion filter device (20) and the ion guide (26) are accommodated,*

wherein the distance traveled by ions along the first intended path of travel (16A) is substantially smaller than the distance traveled by ions along the second intended path of travel (16B) and wherein the flow of ions moving along the second intended path of travel (16B) is directed against the action of gravity, so that the profile of the apparatus housing in a plane orthogonal to the second intended path of travel is reduced so as to minimise the effective footprint of the apparatus housing; wherein the ion filter device (20) comprises a mass analyzer (36) arranged to receive a stream of ions from the ion guide (26) for filtering purposes, ~~and~~ wherein the mass analyzer (36) is a quadrupole mass analyzer having four spaced apart but parallel metallic rods, and wherein the ion source (12) is positioned below the ion analysis device (44) and located in a lower region of the housing (32) of the apparatus."

VII. The wording of claim 1 of auxiliary request 3 was amended compared to claim 1 of auxiliary request 2 by adding the following underlined wording in the cited feature: "an ion analysis device (44) for spectrometry analysis positioned adjacent the ion filter device (20) so that ions passing through the ion filter device (20) proceed directly to the ion analysis device (44)".

VIII. The wording of claim 1 of auxiliary request 4 was amended compared to claim 1 of auxiliary request 2 by adding the following two features:

- "wherein the apparatus is of the type of an inductively coupled plasma (ICP) mass spectrometer, whereby the the ion source (12) comprises an inductively coupled plasma which is aligned so that

the first intended path of travel (16A) is aligned substantially with a horizontal plane,"

- *"and wherein the apparatus further comprises one or more collisional cells (30) arranged for filtering interfering particles from the ion stream (22), thereby serving to improve the signal strength of the ion stream (22) at the ion analysis device (44), and at least one collisional cell is placed between the ion guide (26) and the mass analyzer (36)".*

IX. The appellant's arguments, insofar as they are relevant to the present decision, may be summarised as follows:

Main request, claim 1:

Document D2 represented the closest prior art and referred to an ion beam propagating in the horizontal plane only. Document D2 did not contain any information about the use of a quadrupole mass analyzer in the vertical orientation. Nor should it be implied that the ion guide would be installed in its orientation shown in Figures 3 and 4 in the device shown in Figure 1. The correctness of the machine translation regarding the expression "top view" was questioned, and a certified translation was requested. Starting from the teaching of document D2, the deviation of the ion beam in a vertical direction in order to reduce the footprint of the device was nowhere indicated or rendered obvious and consequently inventive.

Auxiliary request 1:

The same arguments and reasons as presented for the main request still applied. Only an ion beam propagating in the horizontal plane was known at the time of filing.

Auxiliary request 2:

In document D2, no housing was disclosed, let alone a common housing for all structural components.

Auxiliary request 3:

The newly filed request was a reaction to the examining division's decision and thus the first opportunity to introduce this reaction into the proceedings. This request should therefore be admitted.

Auxiliary request 4:

The additional feature of at least one collision cell was not obvious to the skilled person as it made the device huge, and its correct functioning was not obvious when used in a vertical orientation and applied to a vertically directed ion beam.

Request of remittal to the first instance:

As the entire argumentation of the Board against inventive step was based on an - allegedly - incorrect machine translation of document D2, a remittal back to the first instance was requested in order to re-examine the case on the basis of a correct certified translation of document D2.

Reasons for the Decision

1. Main request- Article 56 EPC - Inventive step

- 1.1 The main request was refused by the examining division because the defined subject-matter of claim 1 was found to lack an inventive step based on document D1 in combination with the common general knowledge. As

repeatedly stated in the proceedings before the examining division and as also mentioned in the contested decision, the appellant considered document D2 to be a more appropriate starting point than document D1 for assessing inventive step. In its communication according to Article 15(1) RPBA 2020, the Board presented its preliminary opinion on the reasoning based on both documents D1 and D2 as possible closest prior art documents.

1.2 Closest prior art

1.2.1 The Board also considers the Japanese document D2 to be a more suitable closest prior art document than D1 as it deals with a quadrupole mass spectrometer of the same type as that claimed in the application. The references in the following paragraphs always refer to document D2/D2-translated. Document D2-translated is a machine translation of document D2 into English which was introduced in the proceedings by the examining division.

1.2.2 Document D2 discloses a mass spectrometry apparatus ([0001]), comprising: an ion source (2) arranged in a substantially horizontal orientation (as derived from the combined information from Figures 3, 4 and 1 and [0028] of the description of D2-translated; further explanations thereto see below point 1.2.3) and from which a quantity of ions may be sourced, wherein the ions from the ion source (2) are extracted and arranged to flow along a first intended path of travel (Ci); an ion filter device (8) arranged for receiving a stream of ions for filtering thereof; and an ion guide (1) arranged so as to guide ions sourced from the ion source (2) toward the ion filter device (8), wherein the ions receivable by the ion filter

device (8) are arranged to flow along a second intended path of travel (Co) so as to be received by an ion analysis device (9) for spectrometry analysis; ~~wherein the distance travelled by ions along the first intended path of travel is substantially smaller than the distance travelled by ions along the second intended path of travel~~

and wherein the flow of ions moving along the second intended path of travel is directed with the action of gravity or against the action of gravity, so that the profile of the apparatus is reduced so as to minimise the effective footprint of the apparatus (further explanations thereto see below point 1.2.3);

wherein the ion filter device (8) comprises a mass analyzer ([0029]) arranged to receive a stream of ions from the ion guide (1) for filtering purposes, and wherein the mass analyzer (8) is a quadrupole mass analyzer having four spaced apart but parallel metallic rods.

- 1.2.3 Concerning the spatial orientation of the device shown in document D2, the following has been concluded by the Board from Figures 1, 3 and 4 of D2 in combination with the description [0028] of D2-translated: Figure 1, according to [0028] of D2-translated is "a schematic block diagram of an ICP mass spectrometer" without indicating any spatial orientation of the arrangement shown in the figure. Document D2/D2-translated is silent on which kind of cross section Figure 1 represents (i.e., whether a top view or a side view is shown and where the base plate would be located). Also, other than in Figures 2, 3 and 4, no x-y-z-axes are indicated in Figure 1. The x-y-z-axes indicated in Figures 2, 3 and 4 are perfectly consistent, with the z-axis always corresponding to the axis of the incident ion beam.

Figures 3 and 4 of document D2 show the ion guide (D2: 1). According to paragraph [0028] of D2/D2-translated, Figure 3 "is a top view", i.e., as the Board understands it, a view from above, and Figure 4 "is a perspective view", i.e., a three-dimensional side view. In both figures, the incident ion beam is oriented horizontally and deflected by the ion guide in a vertical direction. This ion beam orientation is consistent all over document D2/D2-translated, since the same expressions and orientations are also used and shown in relation to Figures 7(a), 7(b), 8(a) and 8(b). These orientations are also consistent with the explanations given in paragraph [0031] of document D2.

Integrating this ion guide (D2: 1) in the orientation shown in Figures 3 and 4 in the schematic block diagram of Figure 1 (in which also the incoming and outgoing beams C_i and C_o are indicated), it follows that the ion source is aligned in a horizontal direction. The ion beam travelling along its incident horizontal path (C_i) is deflected by the ion guide (D2: 1) in the vertical direction (C_o), which automatically aligns the quadrupole mass spectrometer vertically with the ion detector on top.

The Board sees no reason why the vertical deflection of the ion beam as shown in Figures 3, 4, 7 and 8, including the spatial orientation of the ion guide and the associated ion beam, should be incorporated in the device shown in Figure 1 in a different orientation from that shown in Figures 3 and 4. Figure 1, as set out above, is silent on its spatial orientation and the description does not provide any further indication as to the spatial orientation of the different structural units shown in Figure 1. Hence, the skilled reader would understand Figures 3 and 4 to illustrate the ion

guide in use with the orientation shown. If the device of Figure 1 had been intended to represent a device in which the ion beam propagates exclusively in the horizontal plane, the ion guide as shown in Figures 3 and 4 would have shown a beam deflection in the horizontal plane.

Moreover, the description of document D2 is silent on the spatial orientation of the ion source, the quadrupole mass analyser and the ion detector. The explanations in paragraph [0031] of D2 which refer to Figures 2 to 4, are consistent with and not contradictory to the Board's understanding. There is no indication in document D2 that the different structural units should be arranged such that the ion beam would be guided exclusively in a horizontal plane. To infer this from common practice or devices available on the market, or even from a statement by the appellant in its own description (see description of the application, page 17, lines 20 to 25), should not obscure what the skilled person would infer from the teaching of document D2. Therefore, the disclosure of document D2 has to be understood such that the ion beam is bent from a horizontal direction into a vertical one, and the schematic block diagram shown in Figure 1 including the different structural units is arranged accordingly.

Finally, it is mentioned that there is no general or international agreement on the orientation of a rectangular coordinate system. Therefore, one cannot conclude that the z-axis presented in some of the figures of document D2 indicates the vertical direction. On the contrary, the z-axis refers consistently in the whole document D2 to the direction of the incident ion beam C_i .

1.2.4 With respect to the appellants arguments the following is noted:

The appellant's assertion that an upward bend of the ion beam with a vertically oriented quadrupole mass analyzer had never been disclosed and used before the filing date of the present application and that document D2 must be understood to mean that the ion beam was guided exclusively in the horizontal plane is evidently in contradiction to what is shown in document D2. As explained above under point 1.2.3, document D2 shows the bending of the ion beam to a vertical direction in Figures 3, 4, 7 and 8. When this ion guide is integrated in the device as shown schematically in Figure 1, it automatically leads to the vertically oriented ion beam and the vertically oriented quadrupole mass spectrometer. It seems neither logical nor plausible that the ion guide should be integrated into the device in a rotated orientation only in Figure 1, as suggested by the appellant, and not in the orientation as shown jointly in Figures 3, 4, 7 and 8.

The appellant relied on that ion beams in this kind of mass spectrometers were always guided in a horizontal plane at the time of filing. It considered that document D2 only referred to a horizontal arrangement of a mass spectrometer but did not provide any evidence as to why document D2 should be understood with this limitation. They did not indicate any passage in document D2 indicating that the ion beam propagated exclusively in a horizontal plane from the source to the detector.

Furthermore, the deflection of an ion beam in a vertical direction is known in the context of mass

spectrometers as e.g. exemplified in document D1 (see e.g., Figures 16 and 19). Hence, it cannot be argued that the skilled person would disregard the vertical beam guidance when looking at document D2. Therefore, the teaching of D2 should be considered as the unbiased person skilled in the art would read it. It might be that the device shown in D2 was never commercialised as was asserted by the appellant. This, however, does not have any implication on how the teaching of D2 would be understood by an unbiased skilled person.

1.3 Distinguishing features

The subject-matter defined in claim 1 differs from the teaching of document D2 by the relative length of the first intended path in relation to the second intended path.

1.4 Technical problem to be solved - technical effect

The Board considers the technical problem solved by the distinguishing features being a suitable selection of the lengths of the first and second intended paths in order to achieve a satisfactory ion filtering while keeping the footprint of the device small.

1.5 Obviousness

The arrangement of the individual structural units in document D2 leads directly to the relative lengths L1 and L2 as defined in claim 1. Therefore, an intended path L2 longer than an intended path L1 of the arrangement as shown in Figure 1 of D2 is an obvious result from the fact that the quadrupole mass spectrometer is relatively long compared to the other components of a mass spectrometry apparatus, in order

to effectively filter the ions. Hence, the subject-matter of claim 1 is obvious when starting from D2 and combining it with the common general knowledge.

1.6 Hence, the Board concludes that the subject-matter defined in claim 1 of the main request does not involve an inventive step.

1.7 The same conclusion applies for claims 2 to 14 which directly or indirectly depend on claim 1.

2. Right to be heard (Article 113(1) EPC)

2.1 Request of a certified translation of D2

2.1.1 During the oral proceedings, the appellant contested that with regard to Figure 3 of D2, the expression "top view" used in paragraph [0028] was correctly translated in D2-translated being a machine translation from the Japanese document D2, and thus the Board was wrong in its interpretation of this term in combination with Figures 1, 3 and 4 (see above point 1.2.3). The appellant therefore requested a certified translation of document D2, as they considered that otherwise their right to be heard had been violated. However, no explanation was given why this translation from Japanese to English was incorrect in view of the appellant and which objective doubts justified this assertion.

The appellant stated that, in its view, the meaning of the expression "top view" was ambiguous and could have various meanings within the three-dimensional space. The appellant did however not indicate a contradiction in document D2 arising from this translation which

could have raised doubts against the verity of the expression "top view".

- 2.1.2 The Board considers the machine translation D2-translated to be of sufficient good quality, not being contradictory in itself and coherent and consistent throughout the whole document. In particular, no contradiction arises between the translated description and the figures and the content is well understandable. The expression "top view" mentioned in paragraph [0028] of D2-translated is consistent with what is shown in Figures 1 to 4 and their combination. In particular, all indications of beam directions and spatial orientations related to Figures 3 and 4 are coherent with each other and with the interpretation of a "top view", i.e., the view from above. The perspective shown in Figure 4, as well as all spatial references shown there, are consistent with Figure 3, especially when Figure 3 represents the "top view" as indicated in paragraph [0028] of D2-translated.

No convincing argument has therefore been put forward to raise reasonable doubts against the accuracy and verity of this machine translation, in particular that the expression "top view" would not be a correct translation.

The appellant's doubts of the machine translation were rather related to the Board's conclusions drawn from the interpretation of the figures in combination with the description given in paragraph [0028] than to the translation itself. If "top view" had to be interpreted and understood differently from the meaning "view from above", and if the expression "top view" was ambiguous, this related to the meaning and understanding of the expression "top view" and not to the translation of document D2 itself.

2.1.3 Finally, the Board comments on the following two decisions of the Boards of Appeal, which further illustrate the Board's decision in this context:

- In T 230/01 it was held that a document normally forms part of the state of the art, even if its disclosure is deficient, unless it can unequivocally be proven that the disclosure of the document is not enabling, or that the literal disclosure of the document is manifestly erroneous and does not represent the intended technical reality. In the case at hand, the Board concludes that the disclosure of document D2 as explained above under point 1.2.3 constitutes a fact as the disclosure of document D2/D2-translated is self-consistent and can be carried out. No contradiction arises from D2-translated which could indicate that the translation would be erroneous and that the device in document D2, as set out in point 1.2.3 above, must be understood differently. On the contrary, the allegation by the appellant that an upward bending ion beam was never disclosed and never used prior to the filing date and that the ion beam in D2 must be understood as being guided exclusively in the horizontal plane is without evidence of proof.

- In case T 428/15 the Board did not rely on a computer-generated translation because the quality of the translation did not allow the Board to understand with a sufficient degree of certainty what was in fact described in the relevant document. This however is different from the present case, wherein the machine translation is self-consistent and without any contradiction.

2.1.4 In conclusion, the Board cannot see any reason not to trust the machine translation D2-translated. Therefore, the request for a certified translation of document D2 is rejected.

2.2 Additional feature being disclosed by document D2

In the Board's view, the right to be heard was also not violated by the fact that it pointed out a feature (the upwardly deflected ion beam along the intended path L2 having as consequence an upward orientation of the quadrupole mass filter and the ion detector) for the first time in the oral proceedings as being disclosed in document D2.

The Board assumes that the content of document D2/D2-translated was well-known to the appellant, because it was cited and discussed during the examination procedure and even considered to present the closest prior art by the appellant. Document D2 was also used as one possible starting point for establishing inventive step in the Board's communication according to Article 15(1) RPBA 2020. Furthermore, the content of document D2 and the Board's view on it was extensively discussed during the oral proceedings. The Board offered an interruption during the oral proceedings to the appellant in order to further study document D2. The appellant declined this, as they were sufficiently informed about the content of document D2. The appellant also did not request an adjournment of the oral proceedings in this context.

The fact that certain interpretations and views may arise only at or during the oral proceedings can certainly not be considered an unfair surprise as such,

as long as the party is provided with enough time to consider the arguments and to forward its counterarguments. It is precisely the purpose of oral proceedings to discuss contentious issues, even if they arise late in the proceedings. The communication of the Board according to Article 15(1) RPBA 2020 is clearly preliminary and as indicated in the communication not binding. In the present case, the Board did not change its overall view on the patentable content of the application which was always considered not to be inventive. The Board did not develop a completely new line of argument. The Board only took into consideration a further feature in document D2 not previously addressed as being disclosed there. During the oral proceedings, the appellant was able to comment in substance on it and their point of view was heard and considered.

2.3 Therefore, the Board finds that the right to be heard according to Article 113(1) EPC was respected.

3. Auxiliary request 1 - Article 56 EPC - Inventive step

3.1 Claim 1 of auxiliary request 1 was limited to an upward oriented ion beam deleting the alternative of a downward oriented ion beam.

Document D2 showed when combining the content of Figures 1, 3 and 4 as explained above under point 1.2.3 the now amended feature. Hence, the whole argumentation for lack of inventive step presented for the subject-matter defined in claim 1 of the main request applies *mutatis mutandis* to claim 1 of the auxiliary request 1.

3.2 The appellant objected that document D2 showed only a horizontal beam orientation and did not show a deviation of the ion beam to the vertical direction. Consequently, the orientation of the quadrupole mass filter was not in a vertical arrangement. All reasons as to why the appellant's arguments cannot convince the Board remain unchanged compared to the main request and apply here accordingly.

3.3 Consequently, the Board concluded that the subject-matter defined in claim 1 of auxiliary request 1 does not involve an inventive step.

3.4 The same conclusion applies for claims 2 to 14 which directly or indirectly depend on claim 1.

4. Auxiliary request 2 - Article 56 EPC - Inventive step

4.1 Claim 1 of auxiliary request 2 was amended by adding a housing with specific characteristics. However, the housing with the further associated definitions is obvious to the skilled person when starting from the teaching of document D2. This follows automatically from document D2 when the structural units shown in Figure 1 of D2 are combined in a common housing, which is considered standard practice.

4.2 The appellant pointed out that document D2 did not show a housing nor a common housing with all the individual structural units included. This argument did not convince the Board. The missing feature of the common housing belongs to common general knowledge, is obvious to the skilled person and cannot provide an inventive contribution.

4.3 Consequently, the subject-matter defined in claim 1 of auxiliary request 2 does not involve an inventive step.

4.4 The same conclusion applies for claims 2 to 13 which directly or indirectly depend on claim 1.

5. **Auxiliary request 3**

5.1 Auxiliary request 3 was amended to define that the ion detector was positioned adjacent to the quadrupole mass spectrometer. It was submitted for the first time with the statement setting out the grounds of appeal. The appellant argued that it was a reaction to the examining division's decision and therefore the first possibility to submit this request. They further argued that claim 1 involved *prima facie* an inventive step even when taking into consideration the conclusion of the Board that the foregoing requests were not inventive with regard to document D2.

5.2 The Board however finds that *prima facie* the provided amendment in claim 1 does not overcome the objections raised against the subject-matter defined in the claims of the higher ranking requests. The subject-matter defined in claim 1 of this request does still not involve an inventive step as the now added feature is also disclosed in document D2. The position of the ion detector (D2: 9) close or adjacent to the quadrupole mass filter (D2: 8) is shown in the schematic block diagram of Figure 1 of D2. The skilled person understands Figure 1 of D2 in the way that no further unit is placed in between so that both units are adjacent as it is defined in the wording of claim 1 of auxiliary request 3. Therefore, the same reasoning applies to auxiliary request 3 as to the higher-ranking

requests regarding the lack of an inventive step. Consequently, auxiliary request 3 is *prima facie* not allowable, and is therefore not admitted into the procedure (Article 12(4) RPBA 2007).

6. Auxiliary request 4 - Inventive step

- 6.1 Claim 1 of the auxiliary request 4 was amended insofar that two features have been added. The ion source was further specified, and one or more collisional cells were foreseen in order to improve the signal strength.
- 6.2 An ion source comprising an inductively coupled plasma is also mentioned in D2 (D2: [0003]) and the use of collisional cells in quadrupole mass filters is considered obvious whenever the signal strength at the ion detector should be improved. This was even indicated as part of the common general knowledge by the appellant itself in the application as filed (description, page 18, lines 11 to 13). Therefore, the added feature can also not provide an inventive contribution over the available prior art.
- 6.3 The appellant argued that the addition of one or more collisional cells was not obvious since it rendered the device huge, and it would not be obvious if it worked for a vertically oriented ion beam. This however could not convince the Board, since the description of the present application qualifies the collisional cell as being part of the common general knowledge (page 18, lines 11 to 13). The skilled person would have consequently at least tried to implement a collisional cell and would have positively checked their functionality.

6.4 Consequently, the subject-matter defined in claim 1 of auxiliary request 4 does not involve an inventive step.

6.5 The same conclusion applies for claims 2 to 9 which directly or indirectly depend on claim 1.

7. Request of remittal to the first instance

7.1 The appellant requested the remittal of the case to the first instance in order to continue the examination procedure based on a certified translation of document D2. The appellant referred to cases T 1343/12 and T 991/01 in which a remittal was granted.

7.2 As stated above under points 2.1.2 and 2.1.4, the accuracy and verity of the machine translation is not credibly questioned, so that the Board cannot find a special reason that could justify a remittal under Article 11 RPBA 2020.

Thus, the request for remittal to the first instance for further prosecution cannot be granted.

7.3 Cases T 1343/12 and T 991/01 cited by the appellant

In case T 1343/12, the factual situation is different from the present case. The case was remitted to the examining division for re-consideration of the issue of inventive step because the quality of the machine translation was poor so that the Board considered that no unambiguous information could be gathered from the machine translation. However, in the present case, the Board considers the machine translation D2-translated of good quality and not contradictory but self-consistent.

Case T 991/01 does also not offer a suitable analogy to the present case. It was remitted to the examining division because the machine translation was sent to the applicant after oral proceedings before the examining division and without keeping a copy of the translation in the file. When the Board had to deal with the case it was unaware of this translation until the appellant referred to it in the oral proceedings before the Board.

8. Conclusion

Since the appeal did not convincingly show that the impugned decision should be overturned and a patent be granted based on one of the appellant's requests, the appeal is not allowable.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:



S. Sánchez Chiquero

G. Eliasson

Decision electronically authenticated