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Datasheet for the decision of 12 July 2021

Case Number: T 2583/17 - 3.3.09

Application Number: 11177007.9

Publication Number: 2417858

A23D7/01, A23D7/015, A23D7/04, IPC:

A23L1/24, A23D7/005, A23L1/035,

B01F3/08

Language of the proceedings: ΕN

Title of invention:

High pressure homogenization in combination with functionalized egg for production of emulsion-based food products

Patent Proprietor:

Kraft Foods R & D, Inc.

Opponent:

UNILEVER N.V. / UNILEVER PLC

Headword:

High pressure homogenization in combination with functionalized egg/KRAFT

Relevant legal provisions:

EPC Art. 56, 100(b), 100(c), 83, 123(2) RPBA Art. 12(4)

Keyword:

Oral proceedings - withdrawal of request for oral proceedings
Late-filed evidence - admitted (yes/no)
Grounds for opposition - added subject-matter (no) insufficiency of disclosure (no)
Amendments - extension beyond the content of the application
as filed (no)
Sufficiency of disclosure - auxiliary request (yes)
Inventive step - main request (no) - 1st and 2nd auxiliary
requests (no) - 3rd auxiliary request (yes)



Beschwerdekammern Boards of Appeal

Chambres de recours

Boards of Appeal of the European Patent Office Richard-Reitzner-Allee 8 85540 Haar GERMANY

Tel. +49 (0)89 2399-0 Fax +49 (0)89 2399-4465

Case Number: T 2583/17 - 3.3.09

DECISION
of Technical Board of Appeal 3.3.09
of 12 July 2021

Appellant: UNILEVER N.V. / UNILEVER PLC

(Opponent) Weena 455/Unilever House, 100 Victoria Embankment

3013 AL Rotterdam/London EC4Y ODY (NL)

Representative: Fijnvandraat, Arnoldus

Unilever N.V.

Unilever Patent Group

Bronland 14

6708 WH Wageningen (NL)

Respondent: Kraft Foods R & D, Inc.

(Patent Proprietor) Three Parkway North
Deerfield, IL 60015 (US)

Representative: Boult Wade Tennant LLP

Salisbury Square House 8 Salisbury Square London EC4Y 8AP (GB)

Decision under appeal: Decision of the Opposition Division of the

European Patent Office posted on 27 October 2017 rejecting the opposition filed against European patent No. 2417858 pursuant to Article 101(2)

EPC.

Composition of the Board:

Chairman A. Haderlein Members: F. Rinaldi D. Rogers

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Summary of Facts and Submissions

- I. This decision concerns the appeal filed by the opponent against the decision of the opposition division to reject the opposition against European patent No. 2417858.
- II. In the notice of opposition, the opponent had requested revocation of the patent in its entirety based on Article 100(a) (lack of novelty and lack of inventive step), 100(b) and 100(c) EPC.
- III. The following documents are relevant for this decision:
 - D1: GB 1 525 929
 - D2: L. De Maria et al., "Phospholipases and their industrial applications", Applied Microbiology and Biotechnology, 74, 2007, 290-300
 - D3: C. E. Dutilh et al., "Improvement of product attributes of mayonnaise by enzymic hydrolysis of egg yolk with phospholipase A_2 ", Journal of the Science of Food and Agriculture, 32, 1981, 451-458
 - D4: W. J. Stadelman et al. "Egg Science and Technology", 4th edn., New York: Food Products Press, 1995, 439-441, 455
 - D5: Wikipedia articles: "Phospholipase" and "Phospholipase B"
 - D6: N. N., "Experimental report"
 - D7: WO 02/34071 A1
 - D8: US 4,119,564

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D9: S. W. Souci et al., "Food Compositions and Nutrition Tables", 7th edn., Stuttgart:

MedPharm Scientific Publishers, 2008, 171-172

Documents D2 to D6 were not cited in the proceedings before the opposition division. They were filed with the statement setting out the grounds of appeal.

- IV. In the decision under appeal, the opposition division decided to reject the opposition. In particular, the invention was sufficiently disclosed, and the claims as granted did not encompass added subject-matter and involved an inventive step.
- V. With the reply to the statement setting out the grounds of appeal (dated 23 July 2018), the patent proprietor (respondent) filed the first to sixth auxiliary requests. By letter dated 4 February 2020, it replaced the fourth and sixth auxiliary requests with the new fourth and new sixth auxiliary request and filed further auxiliary requests (seventh and eighth).
- VI. The board summoned the parties to oral proceedings and issued a communication under Article 15(1) RPBA 2020, in which it:
 - set out its preliminary and non-binding opinion
 - informed the parties that the third auxiliary request appeared to be allowable (communication, point 7.2)
 - invited the parties to consider whether they would mutually agree to withdraw their respective request for oral proceedings if the board maintained its opinion that the patent can be maintained on the basis of the third auxiliary request but not a higher-ranking request (communication, point 8.2)

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VII. By letter dated 13 May 2021, the respondent-patent proprietor declared:

"In response to the Board's suggestion under paragraph 8.2 of the Communication, we now conditionally withdraw our request for oral proceedings on the condition that the Opponent also withdraws their request for oral proceedings and the Patent is maintained on the basis of the 3rd Auxiliary Request." (underlining in the original)

VIII. By letter dated 28 May 2021, the appellant-opponent declared:

"With reference to the communication of the board of appeal pursuant to Article 15(1) of the RPBA of 25.03.2021, and to the letter of the proprietor of 13.05.2021, the opponent withdraws its request for oral proceedings on the condition that the opposed patent is maintained on the basis of the 3rd auxiliary request."

- IX. The board cancelled the oral proceedings.
- X. Wording of the relevant claims:

Claims 1 and 12 of the <u>main request (patent as granted)</u> read:

"1. A method for preparing an emulsion-based food product, the method comprising:

combining about 55 to about 72 percent oil, about 0.2 to about 2.0 percent enzyme-modified egg, about 20 percent to about 40 percent water, and edible acidulant to provide a mixture; and

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treating the mixture with high pressure homogenization for a time and at a pressure effective to provide an emulsion, the emulsion having an average oil droplet size of about 0.8 to about 10 microns and a viscosity of about 200 to about 400 Pa.s when measured with a Brookfield viscometer, spindle T-C at 2.5 rpm, at room temperature twenty-four hours after homogenization, wherein the emulsion further comprises about 0.01 to about 0.15 percent hydrocolloid stabilizer, and wherein the enzyme-modified egg is egg yolk treated with phospholipase."

"12. An emulsion comprising:

about 55 to about 72 percent oil, about 0.2 to about 2.0 percent enzyme-modified egg, about 20 percent to about 40 percent water, and edible acidulant, wherein the emulsion has an average oil droplet size of about 0.8 to about 10 microns and a viscosity of about 200 to about 400 Pa.s when measured with a Brookfield viscometer, spindle T-C at 2.5 rpm, at room temperature twenty-four hours after the emulsion is formed, and wherein the emulsion further comprises about 0.01 to about 0.15 percent hydrocolloid stabilizer, and wherein the enzyme-modified egg is egg yolk treated with phospholipase."

In claim 12 of the <u>first auxiliary request</u>, the enzyme-modified egg is specified to be egg yolk treated with phospholipase A1 or A2.

Claim 11 of the <u>second auxiliary request</u> is based on claim 12 of the first auxiliary request with the following expression added:

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"and wherein the oil and enzyme-modified egg are provided in a ratio from about 42:1 to about 90:1"

In claims 1 and 12 of the <u>third auxiliary request</u>, the following expression is added to claims 1 and 12 of the main request:

- ", and wherein the emulsion includes no protein other than that contributed by the enzyme-modified egg"
- XI. The appellant's arguments relevant to the present decision may be summarised as follows.

Main request

- Documents D2 to D6 were admissible.
- Claims 1 and 12 involved added subject-matter in view of the added features: (A) the specified viscosimeter, (B) the emulsion comprises about 0.01 to about 0.15 percent hydrocolloid stabiliser and (C) the enzyme-modified egg is egg yolk treated with phospholipase and their combination.
- The invention could not be carried out with all phospholipases. This was shown by D2 and D5.

 Tests 1 and 2 of D6 showed that the invention could not be reproduced over the entire scope of the claims.
- As to the inventive step of claim 12, the closest prior art D7 disclosed, inter alia, egg yolk treated with phospholipase, as shown in D3 and D4. The technical problem was to provide a further emulsion. The solution would have been obvious in view of D7.

First and second auxiliary requests:

- The restrictions added to the amended claims related to features that would have been obvious to the skilled person.

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Third auxiliary request:

- The claims did not converge with the previous requests and involved a new combination of features, and the patent did not disclose how to prepare an emulsion according to the invention, i.e. without casein and with 55% oil. The requirement of inventive step was also not met.
- XII. The respondent's arguments relevant to the present decision may be summarised as follows.

Main request

- Documents D2 to D6 should have been filed earlier and were not admissible.
- The combination of features in claims 1 and 12 was derivable from the application as filed.
- The patent specification disclosed how to reproduce the invention using egg yolk treated with phospholipase. Tests 1 and 2 of D6 were not fair attempts to reproduce the patent's invention, and they failed to show that the disclosure was insufficient.
- D7 was the closest prior art. The technical problem was to provide a stable, low-fat emulsion which can be prepared in a simplified manner (i.e. without requiring further protein emulsifiers such as casein). The solution was not suggested in the art.

First and second auxiliary requests:

- The restrictions supported the argument that the problem was solved across the scope of the claims.

Third auxiliary requests:

- This request had been filed in opposition proceedings and with the reply. Therefore, it was admissible. The added feature (no protein other than that contributed by the enzyme-modified egg) was generally applicable to the emulsions of the

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invention. There was no evidence that the invention was not reproducible. The invention claimed would not have been obvious starting from D7.

XIII. Final requests:

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

The respondent requested that the appeal be dismissed (main request) or that the patent be maintained on the basis of the first to third or fifth auxiliary requests (filed with the reply, dated 23 July 2018) or the new fourth, new sixth, seventh or eighth auxiliary requests, filed by letter dated 4 February 2020.

Reasons for the Decision

- 1. The patent concerns emulsion-based food products that:
 - can be readily produced
 - provide creamy mouthfeel and good viscosity
 - have lower fat content than conventional products with similar creaminess and viscosity but with lower amounts of added thickeners

Emulsion-based food products can be used as a pre-mix for making a mayonnaise-type or other dressing-type product (paragraphs [0013] and [0025]).

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- 2. Admission of documents
- 2.1 The appellant filed with the statement setting out the grounds of appeal several documents, including D2 to D6. These documents had not been cited in the opposition proceedings. The respondent requested that D2 to D6 not be admitted into the proceedings.
- 2.2 The admission of D2 to D6 is at the discretion of the board to be exercised under Article 12(4) RPBA 2007.
- 2.3 Admission of documents D2 to D5
- 2.3.1 D2 is a scientific publication on phospholipases and their industrial applications. It is categorised as a "Mini-review" (first page, top left corner). D5 are excerpts from Wikipedia on phospholipase and phospholipase B. Therefore, D2 and D5 are regarded as part of the common general knowledge on phospholipases. They can be considered to be filed in reaction to the opposition division's statement in the decision under appeal that there was no evidence that the invention would not work if phospholipase C or D was used. In other words, D2 and D5 were filed to reinforce an argument on lack of sufficiency of disclosure which had been already presented during the opposition proceedings.
- 2.3.2 D4 is a handbook on egg science and technology. In the cited passages of D4, the emulsifying and stabilising properties of egg are discussed and exemplified by a mayonnaise prepared with egg yolk fermented with pancreatic phospholipase described in D3. In view of this, D4, and by reference also D3, concern common

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- general knowledge on fermented egg yolk, which is the egg product used in the closest prior art D7.
- 2.3.3 Thus, the board sees no reason to exclude D2 to D5 from the appeal proceedings (Article 12(4) RPBA 2007).
- 2.4 Non-admission of document D6
- 2.4.1 D6 concerns an experimental report prepared by the appellant. D6 was filed mainly to support objections of lack of sufficiency of disclosure.
- 2.4.2 The opposition division had informed the then opponent that the invention was considered to be enabled. The opposition division did so some seven months prior to the oral proceedings. At that time, the opponent could and should have carried out experiments, in particular tests 1 and 2 of D6, if it considered them to be useful. The experiments could then have been discussed with the opposition division (if admitted to the proceedings), in particular regarding whether the tests represent a fair attempt to reproduce the invention. The points in dispute could then have been reviewed by the board. However, the opponent did not take up the opportunity to react to the opposition division's preliminary opinion, with the result that any discussion of this issue would only take place in the appeal proceedings.
- 2.4.3 Therefore, D6 is not admitted into the proceedings. (Article 12(4) RPBA 2007).
- 3. Main request amendments
- 3.1 The respondent argued that the following features added to claim 12 had no basis in the application as filed:

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- (A) the specified viscosimeter
- (B) the emulsion comprises about 0.01 to about 0.15 percent hydrocolloid stabiliser
- (C) the enzyme-modified egg is egg yolk treated with phospholipase

Furthermore, the combination of features (A), (B) and (C) also involved added subject-matter.

- The application as filed does not differentiate between the application's method for preparing the product and the product itself. This is derivable from paragraph [0013]. Right under the header "Summary", it is described that a "high fat emulsion-based food product and method for preparing and using the high fat emulsion-based food product are provided". Therefore, the skilled person would have understood that all embodiments disclosed in relation to the method are equally applicable to the product (and vice versa).
- 3.3 With respect to the features (A), (B) and (C), the skilled person would unambiguously have derived the following from the application as filed.
- 3.3.1 As to feature (A), throughout the application as filed, the viscosity is measured with a Brookfield viscometer (spindle T-C at 2.5 rpm). This is the only viscosimeter (and setting) disclosed in the context of how to measure the viscosity (paragraph [0051]). It is also the only viscosimeter (and setting) used in the examples.
- 3.3.2 As to feature (B), a preferred feature of the application as filed is that "the emulsion further comprises about 0.01 to about 0.15 percent hydrocolloid

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stabilizer", as set out in method claim 7. From this wording, it is unambiguous that the feature characterises the emulsion obtained by the method. Support for the use of hydrocolloid stabiliser in the same amounts as specified in claim 7 is found in paragraphs [0020] and [0045] of the application as filed. Moreover, the skilled person would have realised that example 1 describes the use of a hydrocolloid stabiliser and would consider this to be a pointer towards the use of this ingredient.

- 3.3.3 As to feature (C), dependent method claim 2 of the application as filed discloses that the enzyme-modified egg is egg yolk treated with phospholipase. This characterisation of the enzyme-modified egg applies in an undifferentiated manner both to the method and the emulsion of the application as filed, as confirmed by paragraph [0038]: "The enzyme-modified egg that can be used in the compositions and methods described herein includes egg that has been functionalized. By one approach, the egg has been functionalized by treatment with phospholipase". Similarly, paragraph [0019] of the application as filed describes: "The enzyme-modified egg that can be used in the compositions and methods described herein include phospholipase-treated egg". Thus, the skilled person would have derived from these passages that egg yolk treated with phospholipase:
 - is used both in the method and the composition of the application as filed
 - is the only type of enzyme-modified egg
 unambiguously disclosed in the application as filed
- 3.3.4 Moreover, the combination of features (A), (B) and (C), i.e. the combination of the only viscosimeter (and setting), a preferred ingredient and the only type of

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enzyme-modified egg described in the application as filed, would have been clearly and unambiguously derivable from the application as filed by the skilled person.

- 3.4 Thus, the subject-matter of claim 12 does not involve added subject-matter.
- On appeal, the appellant extended the objection of added subject-matter to claim 1 as granted, which also included the combination of features (A), (B) and (C). The respondent requested that this objection not be considered on appeal.

However, as explained above, the objection of added subject-matter with respect to claim 12 is not convincing. For the same reasons, the analogous objections with respect to claim 1 is not successful. In view of this, there is no need to decide whether this objection is admissible.

- 3.6 To conclude, the claims of the patent as granted do not involve added subject-matter (Article 100(c) EPC).
- 4. Main request sufficiency of disclosure
- 4.1 According to the appellant, the patent lacked sufficiency of disclosure because it did not show how the claimed invention could be put into practice for all known phospholipases. The appellant referred to D2 and D5 and argued that if phospholipids were treated with phospholipase B, C or D, the enzymatic cleavage that it caused would make the phospholipid lose its emulsifying property.
- 4.2 This reasoning is not convincing.

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- 4.2.1 According to the patent, egg yolk is treated with phospholipase, such as phospholipase A1 or A2. Phospholipase A2 is preferred (paragraph [0039]). The appellant did not object that the invention could be carried out using phospholipase A2. There is also no evidence showing that the invention would not work with phospholipase A1. In addition, there is no disclosure in the patent of phospholipase B, C or D, let alone that it should be used in the emulsions described in the patent.
- 4.2.2 The appellant's argument was apparently that D2 and D5 represent evidence that the invention would not work for phospholipase B, C or D. For the sake of argument, the board assumes that this is what D2 and D5 indeed demonstrate.
- 4.2.3 However, the appellant's argument does not adequately take into consideration the skilled person's assessment of the patent's teaching. If D2 and D5 were to prove that the invention cannot be carried out with phospholipase B, C or D, the skilled person would not have seriously considered carrying out the invention using options which are (i) not mentioned in the patent and (ii) predestined to fail from the outset (in view of the disclosure of D2 and D5). Rather, when reproducing the invention, the skilled person would have drawn on the description and simply used phospholipase A1 or A2.
- 4.3 The appellant also argued that the invention was not enabled for higher oil levels, for small droplet sizes and low yolk amounts. Moreover, there was no indication on how to carry out the high-pressure homogenisation, and example 1 lacked information.

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- 4.3.1 All these objections are based on tests 1 and 2 of D6.

 These lines of attack have been developed based on facts taken from new evidence filed on appeal. However, D6 is not in the proceedings and cannot be used to support an objection of lack of sufficiency of disclosure.
- 4.3.2 For completeness, the board observes that even if tests 1 and 2 of D6 had been considered on appeal, the information in D6 on how the tests were carried out is incomplete. As the respondent correctly argued, it would not be possible to assess whether the tests represent a fair attempt to reproduce the invention. In this context, it is noted that the appellant attempted to reproduce the invention at the edges of some of the ranges in the claim. Under such circumstances, it would have been particularly relevant to explain how the disclosure of the patent was used to carry out the invention. However, the test protocol does not show that a reasonable effort was undertaken to reproduce the invention. Considering this, the evidence adduced would not have cast serious doubts on the sufficiency of the invention's disclosure.
- 4.4 Thus, the ground for opposition under Article 100(b) EPC does not prejudice the maintenance of the patent.
- 5. Main request inventive step of claim 12
- 5.1 The closest prior art

The parties agreed that D7 can be used as the closest prior art. The board has no reason to differ. The same

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document was used as closest prior art in the opposition proceedings.

- 5.2 Distinguishing features
- 5.2.1 The parties also agreed that the assessment of the distinguishing features be made starting from example 2 of D7. This example discloses an emulsion made with 55% oil, 6% fermented egg yolk, 2% skimmed milk powder, 2% alcohol vinegar (12%), 31.2% water and other ingredients. The amounts in percent are by weight (wt). The possible distinguishing features are:
 - (a) the amount of enzyme-modified egg
 - (b) the fermented egg yolk
 - (c) the hydrocolloid stabiliser and its amount
 - (d) the specified viscosity
- 5.2.2 The parties agreed that feature (a) is a distinguishing feature.
- 5.2.3 As to feature (b), D7 does not explain what the fermented egg yolk of example 2 is. However, at the time of filing D7, it was common general knowledge in the field of mayonnaise preparation that fermented egg yolk was egg yolk treated with (pancreatic) phospholipase. Handbook D4 confirms this. It refers to D3, a scientific publication that examines product attributes of mayonnaise, which includes egg yolk enzymatically hydrolysed with phospholipase A2. This egg yolk is described as "fermented egg yolk" in the abstract of D3.

While the term "fermented" may generally have a different meaning, the respondent has not convincingly shown that the skilled person in the field of

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mayonnaise preparation, when reading "fermented egg yolk", would have understood anything other than egg yolk treated with (pancreatic) phospholipase. D7 itself describes that the egg yolk-derived emulsifier may be enzymatically treated egg yolk (page 6, line 24 to 26). Emulsifiers of this type, produced from egg yolk and phospholipase, are known in the art, as confirmed by documents D1 (e.g. example 2) and D8 (e.g. column 1, lines 30 to 39).

In sum, the teaching that the skilled person would have taken away from example 2 of D7 is to use egg yolk treated with phospholipase. Therefore, feature (b) is not a distinguishing feature.

- 5.2.4 Feature (c) is not disclosed in example 2.
- 5.2.5 For the reasons set out below, the question whether example 2 discloses feature (d) may be left open.
- 5.2.6 Therefore, in the following, it is considered that the distinguishing features are (a), (c) and (d).
- 5.3 Formulation of the problem
- 5.3.1 The respondent argued that a technical effect of the invention was that casein need not be used. However, such an effect is not based on a distinguishing feature and cannot be considered within the frame of the problem and solution approach. Put differently, the alleged effect is not obtained over the entire scope because the open wording of claim 1 encompasses embodiments which include casein. Therefore, the respondent's suggested technical problem ("to provide a stable low-fat emulsion which can be prepared ...

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without requiring further protein emulsifiers such as casein ...") cannot be accepted.

- 5.3.2 The patent is concerned with emulsion-based food products with lower fat content than conventional products, similar creaminess and viscosity, and lower amounts of added thickeners (paragraph [0013]). Similarly, D7 relates to an emulsion having rheological and sensorial properties resembling those of mayonnaise but with a reduced content of oil (page 1, first paragraph). There is no comparative example demonstrating an improvement over example 2 of D7.
- 5.3.3 Thus, the $\underline{\text{technical problem}}$ is to provide a further emulsion.
- 5.3.4 In light of the patent's example 1, it is accepted that this problem is solved.
- 5.4 Obviousness
- 5.4.1 D7 suggests using egg yolk-derived emulsifier in a preferred amount of 3 to 7% (wt) (calculated on the raw egg yolk), which corresponds to 1.5 to 3.5% (wt) of dry egg yolk (D9). This amount falls within the range required by claim 12.

Moreover, according to D7 (page 7, lines 30 and 31), natural gums may also be used, in an amount of 0.02 to 0.4% (wt).

Therefore, features (a) and (c) are suggested in D7.

5.4.2 Example 2 of D7 does not disclose the composition's viscosity but mentions its Stevens value, which indicates that the emulsion has the required firmness

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and spoonable character. Moreover, the viscosity range required in claim 12 is not presented as being unusual (patent, paragraphs [0013] and [0014]). Nor has the respondent argued that the required viscosity provides an inventive contribution. Therefore, providing the viscosity range required in claim 12, i.e. feature (d), would have been an obvious option for the skilled person.

- 5.5 Thus, the subject-matter of claim 12 lacks inventive step (Article 56 EPC).
- 6. First auxiliary request
- 6.1 Compared to claim 12 of the main request, in claim 12 of the first auxiliary request (wording, point X), the enzyme-modified egg is specified to be egg yolk treated with phospholipase A1 or A2.
- 6.2 However, D3 (abstract) teaches that egg yolk fermented with pancreatic phospholipase A2 is a more potent emulsifier for mayonnaise than untreated egg yolk. In view of this, the skilled person would have considered using phospholipase A2.
- 6.3 Thus, the subject-matter of claim 12 of the first auxiliary request does not involve an inventive step (Article 56 EPC).
- 7. Second auxiliary request
- 7.1 Compared to claim 12 of the main request, in claim 11 of the second auxiliary request (wording, point X):
 - the enzyme-modified egg is specified to be egg yolk treated with phospholipase A1 or A2

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- oil and enzyme-modified egg are provided in a specified ratio (42:1 to 90:1)
- 7.2 The respondent has not argued that the combination of features in claim 11 provides a specific technical effect or that it would solve a more ambitious technical problem. Rather, according to the respondent's submissions, the restriction to the oilto-egg ratio merely supported the argument that the technical problem was solved across the scope of the claims.
- 7.3 However, the restrictions introduced in claim 11 do not render the claimed subject-matter inventive.

First, they do not result in a more ambitious problem to be solved because the reasoning set out at point 5.3 still applies. Second, as explained above in point 6.2, the skilled person would have used phospholipase A2. Third, D7 allows varying the amount of oil and egg over a wide range. According to the appellant's calculations, the skilled person would have varied the amounts of oil and egg yolk and arrived at a value within the ratio called for in claim 11, without departing from the teaching of D7. The respondent has not contested the appellant's calculations.

In view of this, subject-matter remains within the scope of the restricted claims that would have been obvious to the skilled person. The respondent's argument that the technical problem was solved across the scope of the claims is not accepted.

7.4 Thus, the subject-matter of claim 11 of the second auxiliary request does not involve an inventive step (Article 56 EPC).

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- 8. Third auxiliary request
- 8.1 In claims 1 and 12 of the third auxiliary request (wording, point X), the feature was added that the emulsion includes no protein other than that contributed by the enzyme-modified egg.
- 8.2 The appellant observed that this request did not converge with the subject-matter claimed in the "previous requests". Claims 1 and 12 of the third auxiliary request do not specify the type of phospholipase, as was the case in the first and second auxiliary requests. Instead, they further define the constituents of the emulsion. However, this is not a conclusive reason for excluding this request from the proceedings under Article 12(4) RPBA 2007. This request had been filed in opposition proceedings and was filed again with the reply to the statement setting out the grounds of appeal. Therefore, it is part of the appeal proceedings.
- 8.3 Article 123(2) EPC
- 8.3.1 In claims 1 and 12 of the third auxiliary request, claims 1 and 12 of the main request have been amended. The added feature defines that the emulsion includes no protein other than that contributed by the enzymemodified egg.
- 8.3.2 As explained above in item 3, claims 1 and 12 of the main request do not involve added subject-matter.
- 8.3.3 The added feature in claims 1 and 12 is directly disclosed in paragraph [0056] of the application as filed. This disclosure is entirely consistent with the

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application as filed, in particular paragraphs [0013] and [0057], which unambiguously set out that the aim of the invention is to provide emulsions with reduced levels of protein. Example 1 also confirms this. Accordingly, the skilled person would have considered the added feature to be generally associated with the emulsions of the invention.

- 8.3.4 Thus, the amendments in claims 1 and 12 comply with the requirement of Article 123(2) EPC.
- 8.4 Sufficiency of disclosure
- 8.4.1 The appellant argued that if casein was not used, the viscosity would drop below 200 Pa.s. In its view, the patent would not teach how to make an emulsion without casein and with 55% oil.
- 8.4.2 This is not persuasive. There is no experimental evidence showing that the issue that the appellant alleges arises is indeed a problem. Moreover, the appellant has not demonstrated that the instructions in the patent and the example lack information and that the skilled person would not have been able to adjust the conditions for preparing the emulsion-based food product called for in the claims.
- 8.4.3 Thus, the invention according to the claims of this request complies with the requirement set out in Article 83 EPC.
- 8.5 Inventive step
- 8.5.1 The appellant argued that the subject-matter of claims 1 and 12 lacked inventive step starting from D7 as the closest prior art.

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- 8.5.2 D7 teaches that casein is essential. According to the passage on page 4, line 30 to page 5, line 12, it provides a unique function: under the conditions specific for mayonnaise (pH 3.0-5.0) and in the presence of oil droplets, it forms clusters which have a thickening effect on the emulsion and allow obtaining a product with an appearance and rheological behaviour (e.g. spoonable character) similar to standard mayonnaise.
- 8.5.3 In view of this disclosure, the skilled person would have had no motivation to modify the teaching of D7 by removing casein and providing an emulsion which includes no protein other than that contributed by the enzyme-modified egg.
- 8.5.4 Thus, the subject-matter of claims 1 and 12 of the third auxiliary request involves an inventive step (Article 56 EPC).

9. Conclusion

The third auxiliary request is allowable. There is no need to discuss the lower-ranking requests.

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Order

For these reasons it is decided that:

- 1. The decision under appeal is set aside.
- 2. The case is remitted to the opposition division with the order to maintain the patent with the following claims and a description and drawings to be adapted where necessary:

Claims:

No. 1 to 14 of the third auxiliary request, filed with the reply dated 23 July 2018.

The Registrar:

The Chairman:



G. Magouliotis

A. Haderlein

Decision electronically authenticated