Case Number: T 0678/98 - 3.3.1
Application Number: 91911457.9
Publication Number: 0532646
IPC: C07C 11/09

Language of the proceedings: EN

Title of invention: Process for catalytic conversion of olefins

Patentee: ExxonMobil Chemical Patents Inc.

Opponent: Mobil Oil Corporation Office of Patent Counsel

Headword: Isomerisation of olefins/EXXON

Relevant legal provisions: EPC Art. 122, 54, 111(1)

Keyword: "Re-establishment into the time limit for filing grounds of appeal (yes) - isolated mistake in calculation of time limit - all due care required by circumstances taken" "Novelty (yes) - no direct and unambiguous disclosure of the claimed subject-matter" "Remittal to first instance"

Decisions cited: -

Catchword: -
Case Number: T 0678/98 - 3.3.1

DECISION
of the Technical Board of Appeal 3.3.1
of 10 June 2003

Appellant: ExxonMobil Chemical Patents Inc.
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Respondent: Mobil Oil Corporation
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Decision under appeal: Decision of the Opposition Division of the European Patent Office posted 7 May 1998 revoking European patent No. 0 532 646 pursuant to Article 102(1) EPC.

Composition of the Board:
Chairman: A. J. Nuss
Members: J. M. Jonk
          S. C. Perryman
Summary of Facts and Submissions

I. The appeal lies against the decision of the Opposition Division to revoke European Patent 0 532 646, posted on 7 May 1998. The Notice of Appeal was filed on behalf of the appellant (proprietor of the patent) by its previous representative on 7 July 1998, and the appeal fee was paid on the same date. The Statement of Grounds of Appeal was filed by letter dated 17 September 1998 from the previous representative received by the EPO as a facsimile at 1:44 (Central European Time) in the morning of Thursday 18 September 1998.

II. The opposition was based on the grounds that the claimed subject-matter of the patent in suit lacked novelty and did not involve an inventive step as indicated in Article 100(a) EPC, lacked sufficiency within the meaning of Article 100(b) EPC, and extended beyond the content of the application as filed Article 100(c) EPC. It was supported by several documents including:

(1) Zeolite Chemistry and Catalysis, American Chemical Society, Washington DC (1976), Chapter 8, pages 437-528, and

Claim 1 of the patent in suit as granted read as follows:

"A process for conversion of an n-olefin of 3 to 9 carbon atoms to another unsaturated compound comprising contacting the olefin in the liquid or vapour phase with a catalyst which comprises a molecular sieve containing a combination of sites consisting of Lewis acid and base sites, the Lewis acid sites having been provided by ion exchanging the molecular sieve with a cation."

III. The decision of the Opposition Division was based on Claims 1 to 10 filed on 25 July 1997.

Claim 1 corresponded to Claim 1 as granted, except that the Lewis acid sites had been provided by ion exchanging the molecular sieve with a divalent cation.

IV. The Opposition Division held with respect to the objection under Article 100(b) EPC that the patent in suit disclosed the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art. However, it decided that the claimed subject-matter lacked novelty in view of the cited documents (1) and (10).

V. The appellant defended the patentability of the subject-matter of the patent in suit on the basis of Claims 1 to 7 filed on 18 September 1998 as main request or Claims 1 to 7 submitted on the same date as first auxiliary request.
Claim 1 of the main request read as follows:

"A process for the skeletal isomerisation of an n-olefin of 4 to 6 carbon comprising contacting the olefin in the liquid or vapour phase with a catalyst which comprises a molecular sieve having catalytic sites, characterised in that the catalytic sites are the combination of a Lewis acid and base site, and that the Lewis acid sites have been provided by ion exchanging the molecular sieve with a divalent cation."

Claim 1 of the first auxiliary request was further restricted by the proviso that the molecular sieve catalyst was substantially free of Brønsted acid catalytic sites.

VI. By a communication dated 29 September 1998 from the Registry of the Boards of Appeal, the appellant was informed that it appeared that the written statement setting out the grounds of appeal was not filed in due time, and that therefore it could be expected that pursuant to Rule 65(1) EPC in conjunction with Article 108 EPC the appeal would be rejected as inadmissible.

VII. On 9 November 1998 the present representative filed an application for re-establishment into the time limit for filing the Grounds of Appeal, and at the same time paid the fee for such application. Supporting evidence and further submissions were filed on 27 November 1998. The opponent filed comments on the application for re-establishment by letter dated 9 March 1999 and the appellant responded to these by letter of 20 April 1999.
VIII. The opponent withdrew his opposition by letter dated 3 April 2000.

IX. The submissions and evidence filed relating to the application for re-establishment can be summarized as follows:

- The previous representative had transferred from one firm to another on 1 July 1998, taking with him a high workload of cases, including the handling of the present patent.

- The relevant time limits for filing the notice of appeal and the statement of grounds, had been entered both in the computer based diary system of his previous firm and in that of his new firm. The time limits were entered calculated by reference to the date of the decision under appeal, without reference to the additional 10 days available under the deemed delivery provisions of Rule 78(3) EPC then in force (now Rule 78(2) EPC). The previous representative did not normally rely on these additional ten days, unless exceptional circumstances made it necessary.

- The previous representative agreed with the manager of the administrative services of his new firm that for an interim period, until all the cases transferred had been entered not to use the back-up system available in the new firm's computer based diary system under which all due dates would be entered independently for each new decision or official communication received.

- At the beginning of September 1998, the previous
representative being fully aware of the time limit of 7 September 1998 entered as the time limit for filing the grounds of appeal (not allowing for the 10 days) agreed with his client to exceptionally rely on these extra ten days so that additional points to be made in the Statement of Grounds deemed could be agreed. For some reason which the previous representative was unable to explain even to himself he calculated the final date as 18 September 1998. The only explanation was the pressure of work he was under. The previous representative thus sent the grounds of appeal by fax from his home some two hours too late, instead of as he thought twenty-two hours before expiry of the time limit.

- It was only on receipt of the communication dated 29 September 1998 from the Registry of the Boards of Appeal that the previous representative became aware that the time limit had not been met, and he then took immediate action to remedy the situation.

- It was submitted that cause of the non-compliance was the miscalculation of the time limit, and that this cause was only removed by the communication dated 29 September 1998. The application for re-establishment was thus filed in time. Apart from this miscalculation, all due care had been exercised. The previous representative was fully aware of the need to meet the time limit, and the reminder systems used were adequate and operational. This was a case for the application of the principle of proportionality as enunciated in cases T 869/90 of 15 March 1991 and T 111/92 of
3 August 1992 where representatives while fully aware of the need to file within the time limit, and taking all action apparently necessary to meet this end, had similarly miscalculated the date by a day or two. Further in case T 469/93 of 9 June 1994 it was recognized that transfers of cases created a difficult situation in which errors could occur despite all due care being taken.

X. The appellant requested re-establishment into the time limit for filing grounds of appeal, and that the decision be set aside and a patent be granted on the basis of Claims 1 to 7 of the main request or Claims 1 to 7 of the first auxiliary request.

Reasons for the Decision

1. Re-establishment into the time limit for filing grounds of appeal

1.1 Article 122 EPC allows the re-establishment of rights where a proprietor of a European patent in spite of all due care required by the circumstances having been taken, was unable to observe a time limit, provided the application for restitution is made within two months from removal of the cause of non-compliance. This requires first that the cause of non-compliance be established.

1.2 In this case the Board can accept that the cause of the non-compliance with the time limit for filing the grounds of appeal was the one-day miscalculation of that time limit by the previous representative, and that this cause was only removed on receipt of the communication from the Registry of the Boards of Appeal.
dated 29 September 1998. The application for re-establishment was filed on 9 November 1998 within two months of the issue of the communication, and the application for re-establishment was thus filed in due time.

1.3 When considering whether the non-observance of the time limit occurred despite all due care required by the circumstances having been taken, the jurisprudence developed by the Boards of Appeal has not considered that a single mistake must automatically be treated as lack of due care. However, there should normally be in operation a system of cross-checks to avoid mistakes, and the mistake should not be attributable to the system used.

1.4 Here the previous representative concerned had taken sole responsibility for ensuring compliance with time limits for a limited period in the exceptional circumstances of a large number of cases being transferred from the records of one firm to another, until the time-consuming task of an accurate transfer of the records had been completed. The systems used for monitoring time limits in both firms appear satisfactory. The decision of the representative to take sole responsibility until the transfer of records had been completed can be regarded as reasonable in the circumstances.

1.5 Normally the previous representative took all steps well within any given time limit, by not relying on the additional period given by the deemed delivery provisions of then Rule 78(3) EPC (now Rule 78(2) EPC). In the special circumstances of this case where the grounds of appeal had not yet been satisfactorily finalized at this normal date, the representative
decided to exploit the full time limit. The facts show that he had the time limit well in mind, and but for the unfortunate miscalculation, would have been twenty-two hours early in meeting the time limit, instead of some two hours late. As pointed out by the representative of the former opponent, given that the ground for revocation in the decision under appeal was lack of novelty, the Statement of Grounds filed was longer than the minimum necessary for an admissible appeal, in that it dealt also with inventive step. It was thus solely the mistake in calculation of the time limit, and not any lack of timely preparation of documents that caused the time limit to be missed.

1.6 Action to remedy the situation was also taken promptly and completely once the missed time limit came to light on receipt of the communication from the EPO. This can be treated as confirmation that the system in operation was normally satisfactory.

1.7 Given the care that was given to meeting the time limit, and the fact that it was missed by less than two hours, it would be disproportionately severe not to regard as met the precondition laid down in Article 122 EPC for re-establishment, namely that the time limit was missed despite all due care required in the circumstances having been taken. The appellant is therefore granted re-establishment into the time limit for filing the grounds of appeal. The requirements for admissibility of the appeal under Articles 106 to 108 and Rule 64 EPC are thus met and the appeal is admissible.

Main request

2. Amendments (Article 123(2) and (3) EPC)
2.1 Present Claim 1 is supported by Claims 1 and 4 of the patent application as filed in combination with the following passages of the description of the application as filed:

- page 3, lines 11 to 14, concerning the skeletal isomerisation of the specified olefines,

- page 7, lines 1 to 5, concerning the use of n-olefines of 4 to 6 carbon atoms as starting compounds,

- page 3, lines 24 to 28, with respect to the application of a catalyst having a combination of Lewis acid and base sites, and

- page 4, lines 17 to 25, concerning the provision of the Lewis acid sites by a divalent cation.

Present Claims 2 to 6 correspond to Claims 2, 3 and 5 to 7 of the originally filed application, respectively.

Present Claim 7 finds its support on page 7, lines 15 to 19, of the description of the application as filed.

2.2 Thus, in view of these considerations and the fact that the amendments only represent restrictions to the scope of Claim 1 as granted, the Board finds that the subject-matter of present Claim 1 meets the requirements of Article 123(2) and (3) EPC.

3. **Novelty**

3.1 The Opposition Division revoked the patent in suit on the ground of lack of novelty of the subject-matter of Claim 1 then on file in view of documents (1) and (10).
Therefore, the only question to be decided is whether the subject-matter of present Claim 1 is novel over these documents.

3.2 Concerning the issue of novelty, the Board firstly observes that it is a generally applied principle that for concluding lack of novelty, there must be a direct and unambiguous teaching in a prior art document, which would inevitably lead the skilled person to something falling within the scope of what is claimed.

3.3 In the present case, document (1) discloses hydrocarbon transformations catalysed by zeolites, such as the skeletal isomerisation of olefines, for instance of 1-butene (see page 437, second paragraph, and page 439, second paragraph, lines 1 to 4, reaction (2)). This disclosure concerns a general review of the types of reactions known to be catalysed by zeolites. It does not directly and unambiguously describe the skeletal isomerisation of 1-butene using the specific zeolite catalyst as defined in present Claim 1.

Moreover, it summarises the results of comparisons of activity of zeolites as a function of exchanged cation type for a number of transformations such as isomerisation of 1-butene in the presence of, for instance, Ca and Mg cation exchanged zeolites (see pages 468 and 469, Table II and the disclosure under "Role of Cation Type"). In this context, it has been indicated that in case of rare earth cations a rough correlation between activity and total Bronsted acidity was shown (see page 469, lines 5 to 10). Therefore, also this disclosure does not directly and unambiguously disclose the skeletal isomerisation of an n-olefin using a zeolite having a combination of catalytic Lewis acid sites and base sites.
In fact, the only specific disclosure of a skeletal isomerisation in document (1) concerns the isomerisation of 3,3-dimethyl-1-butene (see the paragraph bridging pages 486 and 487), which reaction does not fall under the scope of present Claim 1.

Furthermore, document (10) relates to basic compositions comprising a zeolite and one or more metal compounds of Group IA, IIA, the Transition Metals or the Rare Earth Metals wherein the sum of the amount(s) of the metal compound(s) and any metal cation exchanged into the zeolite is in excess of that required to provide a fully metal cation-exchanged zeolite (see page 2, lines 28 to 31). It discloses a large number of chemical reactions for which the compositions are suitable as catalysts including the isomerisation of olefines (see page 8, line 47 to page 11, line 25). Therefore, there is no direct and unambiguous disclosure in this document of the process of present Claim 1 of the patent in suit which is characterised by the skeletal isomerisation of certain n-olefines in the presence of a zeolite catalyst having Lewis acid sites provided by ion exchanging with a divalent cation.

In this context, the Opposition Division referred to an illustrative embodiment concerning the preparation of a basic zeolite having Lewis acid sites provided by ion exchanging with a calcium cation and its use for the isomerisation of 1-octene (see page 112, line 34 to page 114, line 52). This particular embodiment does not fall under the scope of present Claim 1 which is restricted to the isomerisation of n-olefines of 4 to 6 carbon atoms.

Thus, in view of the fact that neither document comprises a direct and unambiguous disclosure of the
4. **First auxiliary request**

4.1 In the light of the above findings, it is not necessary to consider the appellant's auxiliary request.

5. **Remittal to the first instance**

5.1 The Opposition Division decided that the claimed subject-matter was not patentable on the ground of lack of novelty, but did not consider the question of inventive step.

In these circumstances, and in view of the fact that the function of the Boards of Appeal is primarily to give a judicial review of the decision taken by the first instance, the Board in the exercise of its discretion under Article 111(1) EPC remits the case to the first instance for further prosecution on the basis of the present set of claims. This would not preclude the Appellant from further amending these claims as may become necessary.

**Order**

**For these reasons it is decided that:**

1. The appellant is granted re-establishment into the time limit for filing the grounds of appeal.

2. The appeal is admissible.
3. The decision under appeal is set aside.

4. The case is remitted to the first instance for further prosecution on the basis of the Claims 1 to 7 filed on 18 September 1998 as main request.

The Registrar:  The Chairman:

N. Maslin A. Nuss