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DECISION
of 21 February 1997

Case Number: T 0229/93 - 3.3.1

Application Number: 84102541.4

Publication Number: 0124716

IPC: C10G 11/05

Language of the proceedings: EN

Title of invention:

High performance catalysts for carbo-metallic oil conversion as well as their manufacture and use

Applicant:

ASHLAND OIL, INC.

Opponent:

-

Headword:

Oil converting catalyst/ASHLAND

Relevant legal provisions:

EPC Art. 123(2), 111(1), 84
EPC R. 86(3)

Keyword:

"Added subject-matter (no) - after amendment"
"Remittal to the Examining Division"

Decisions cited:

-

Catchword:

-



Case Number: T 0229/93 - 3.3.1

D E C I S I O N
of the Technical Board of Appeal 3.3.1
of 21 February 1997

Appellant: ASHLAND OIL, INC.
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Decision under appeal: Decision of the Examining Division of the
European Patent Office posted 9 December 1992
refusing European patent application
No. 84 102 541.4 pursuant to Article 97(1) EPC.

Composition of the Board:

Chairman: R. K. Spangenberg
Members: J. M. Jonk
R. E. Teschemacher

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Summary of Facts and Submissions

- I. The appeal lies from the decision of the Examining Division refusing European patent application No. 84 102 541.4 (publication No. 0 124 716) on the ground that the subject-matter of the claims and the description extended beyond the content of the patent application as filed within the meaning of Article 123(2) EPC.

With respect to the description, the Examining Division held that the Applicant's failure to indicate the support for the amendments in the originally filed application - after having had sufficient opportunity to do so - could only mean that said support was lacking.

Moreover, the Examining Division noted that the decision would be revised under Article 109 EPC only if the support for the amendments were indicated by reference to the documents as originally filed. In this context, they suggested using handwritten amended copies of the originally filed pages of the description.

- II. Together with the statement of grounds of appeal, the Appellant filed on 6 February 1993 new Claims 1 to 4, but he maintained the description as filed on 21 May 1992 and contended that the wording of pages 10 to 57 of this description corresponded to that of the description as originally filed, with the exception that a number of amendments concerning the units of particular physical values had been made. With respect to several deleted parts of the description he referred to the corresponding US-A-4 480 047.

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III. In a communication dated 15 February 1996, the Board raised objections under Article 123(2) and Article 84 EPC against the new claims. The Appellant was invited to adapt the description to the claims, and to convert the non-metric physical values into the metric system using SI-units. Furthermore, the Board requested the Appellant to submit the necessary amendments to the description - as far as possible with respect to their legibility - in handwriting on a copy of the originally filed application. In this context, the Board noted that in accordance with the established case law of the Boards of Appeal completely retyped documents were normally not considered to be acceptable for reasons of procedural economy.

IV. On 10 May 1996 the Appellant filed in response new Claims 1 to 4, and a specification which corresponded essentially to that as submitted on 21 May 1992, but in which page 43, line 32 to page 49, line 25, were deleted, and metric data were inserted while maintaining the corresponding non-metric data in parentheses.

V. In the annex to the summons to attend oral proceedings dated 21 November 1996, the Board raised a further objection under Article 123(2) with respect to the description, because the passages according to pages 22 and 28 (lines 20 to 23 and 15 to 17, respectively), both reading:

"Broadly the silica-alumina gel matrix portion comprises from 30 to 60% of an acidic silica-alumina-cogel matrix comprising at least 13 wt% alumina, based on the silica-alumina-cogel matrix." (emphasis added)

did not appear to be supported by the content of the originally filed patent application. Moreover, the Board communicated that in the circumstances of the present case it had to be reckoned with a dismissal of the appeal if the Appellant would not succeed in submitting an amended description meeting Article 123(2) EPC by using replacement pages on the basis of the specification as originally filed.

VI. During oral proceedings held on 21 February 1997, the Board observed that in view of the Board's earlier decision T 384/90 in this case, dated 5 September 1991 (not published), concerning the admissibility of the then standing claims under Article 123(2) EPC, and in particular the reference in the Order of that decision to the telephone conversation of 2 July 1991, in which it was agreed to amend the kaolin content of the clay as indicated in Claim 4, under (b), of "20 to 65%" to "20 to 60%", either the present Claim 4 had to be amended accordingly, or the basis of the content of "20 to 65%" had to be indicated in the patent application as originally filed.

In order to meet the objections of the Board and to avoid the necessity of a reexamination of the subject-matter of the present claims with respect to Article 123(2) EPC, the Appellant filed during these oral proceedings new Claims 1 to 4. These new claims read as follows:

1. Low coke, high octane, high activity, high selectivity, metal tolerant, thermally stable, low slurry oil producing catalyst for the conversion of hydrocarbons contaminated with high Conradson carbon and metals to produce lower molecular weight products, characterized by the combination of the following features:

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(a) from 5 to 30% by weight of a zeolite comprising a zeolite selected from the group consisting of a HY zeolite and an ultrastable HY zeolite having a silica-alumina mole ratio of at least 5, and having a cell dimension of 2.43 - 2.47 nm;

(b) from 20 to 65 wt% of a clay comprising kaolin having a crystalline size of from 0.5 to 2 μm ;

(c) from 30 to 60% of an acidic silica-alumina-cogel matrix comprising at least 13 wt% alumina;

(d) from 0.5 to 3 wt% of rare earths comprising lanthanum and cerium in a ratio of from 0.5 to 6;

(e) from 15 to 60 wt% alumina;

(f) wherein the zeolite is partially exchanged with said rare earths from a solution and wherein said zeolite is contained in the acidic matrix and wherein rare earths have been precipitated onto the matrix;

(g) the pore volume in the range of 0.2 to 0.7 cm^3/g , the pore size in the range of 10 - 100 nm with additional feed pores in the range of 100 to 600 nm and having a ratio of matrix and zeolite acidity of 1:1.

2. Catalyst according to Claim 1, characterized by a pore volume of 0.45 to 0.55 cm^3/g as determined by water titration.
3. Catalyst according to Claim 1, characterized by the kaolin consisting of a clay having 80% of the particles with a size of less than one μm .

4. A process for the preparation of the catalyst of Claim 1, comprising in combination the steps of:

(a) providing a sodium silicate solution having a concentration of 3 to 6% SiO₂;

(b) dispersing kaolin clay in water in a concentration of 20 to 60% and combining with (a) in such proportions as to yield a catalyst containing 20 to 60% kaolin;

(c) adding a solution of alum to (b) so as to bring the pH to 8 to 10 and holding at 24 to 49°C for ½ hour or more;

(d) adding a sodium aluminate solution to (c) so as to raise the pH back to 12;

(e) adding alum solution to (d) so as to drop the pH to 3;

(f) adding a slurry of HY zeolite or ultrastable HY zeolite to (e) so as to produce a final content of 5 to 30% zeolite in the finished catalyst, said zeolite to have been exchanged with rare earths comprising cerium and lanthanum to the extent of 10 to 80% of full rare earth capacity;

(g) adding NH₃ to the slurry so as to neutralize the alum and return the pH to 6 to 9 by precipitating alumina gel;

(h) dewatering (g) by filtration, homogenizing, adjusting viscosity and spray drying to a desired particle size;

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(i) washing said spray dried particles to remove additional sodium and sulfate ions;

(j) contacting with additional rare earth solution comprising cerium and lanthanum at a pH of 5 so as to precipitate said rare earths in the matrix;

(k) rinsing, dewatering and drying to a final product.

In addition, he filed a new description consisting of pages 1 to 77 including pages 3a, 5a, 22a and 22b, and Figures 1 to 13.

VII. The Appellant requested that the decision under appeal be set aside and that a patent be granted on the basis of the documents submitted during the oral proceedings.

VIII. At the conclusion of the oral proceedings the Board's decision was pronounced.

Reasons for the Decision

1. The appeal is admissible.
2. In contrast to the set of claims refused by the Examining Division, present Claims 1 to 4 are substantially identical with those which were considered to be allowable under Article 123(2) EPC by the Board of Appeal in the decision T 384/90, the only difference consisting in the deletion of the terms "about" and "approximately". Therefore, the compliance of the claims with Article 123(2) EPC is to be accepted on the basis of the previous decision of the Board.

3. The Board observes that in the decision under appeal the description was objected to under Article 123(2) EPC without specifying any part of it which was not supported by the description as filed. In the Board's judgment, in these circumstances the Examining Division should rather have considered to refuse its consent to the amendments pursuant to Rule 86(3) EPC, since the filing of such amendments after the expiry of the time limit for answering the first communication of the Examining Division in the form of a completely retyped description is contrary to the requirement of procedural economy (T 113/92, dated 17 December 1992, not published). Nevertheless, in the present case the description refused by the Examining Division indeed contained parts which were not supported by the content of the patent application as filed (see point III above).

4. However, the present description and Figures 1 to 13 correspond to the originally filed patent application with the exception that they contain amendments in handwriting on copies of pages as originally filed, and that the description comprises inserted pages which essentially concern the subject-matter of the present restricted claims. Therefore, the Board finds that these documents are no longer unacceptable for reasons of procedural economy. Moreover, after examination of these documents, the Board is satisfied that they also meet the requirements of Article 123(2).

5. Although the Examining division did not raise any objection with respect to novelty and inventive step, in the Board's judgment, the present application is still not ready for grant, since the description contains a number of passages extending beyond the scope of the present claims, such as those concerning suitable zeolites, catalyst clays and catalyst gels (see pages 38 to 41). These inconsistencies may give

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rise to an interpretation of the claims which is broader than justified by the result of the examination. Therefore, they may throw doubt on the extend of protection and render the claims unclear (Article 84 EPC, second sentence), so that the present application does not meet the requirements of the convention.

6. Thus, in these circumstances, the Board considers it appropriate to make use of its power under Article 111(1) EPC and remits the case to the Examining Division for further prosecution.

Order

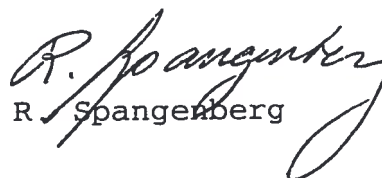
For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the first instance for further prosecution on the basis of the documents submitted during the oral proceedings.

The Registrar:


E. Gorgmaier

The Chairman:


R. Spangenberg

