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T 184/84

Anmeldenummer / Filing No / N^o de la demande :

81 301 929.6

Veröffentlichungs-Nr. / Publication No / N^o de la publication :

39593

Bezeichnung der Erfindung:

Title of invention:

Titre de l'invention :

A method of producing a single crystal
of ferrite

Klassifikation / Classification / Classement :

C 30 B1/02

ENTSCHEIDUNG / DECISION

vom / of / du 4 April 1986

Anmelder / Applicant / Demandeur :

NGK Insulators

Patentinhaber / Proprietor of the patent /

Titulaire du brevet :

Einsprechender / Opponent / Opposant :

Stichwort / Headword / Référence :

EPÜ / EPC / CBE

Art. 87,88 EPC

"Priority - Identical invention in previous and subsequent application"

Leitsatz / Headnote / Sommaire

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Case Number : T 184 /84

D E C I S I O N
of the Technical Board of Appeal 3.3.1
of 4. April 1986

Appellant : NGK INSULATORS LTD.
2-56, Suda-Cho, Mizuho-Ku
Nagoya City
Japan

Representative : Paget, Hugh Charles Edward
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Decision under appeal : Decision of Examining Division 018 of the
European Patent Office dated 09.02.1986
refusing European patent application
No 81 301 929.6 pursuant to Article
97(1) EPC

Composition of the Board :

Chairman : K. Jahn
Member : G. Szabo
Member : P. Lançon
Member : F. Benussi
Member : R. Schulte

I

Summary of Facts and Submissions

I European patent application No. 81 301 929.6 (publication No. 39 593) filed on 1 May 1981, claiming priority of the prior application of 2 May 1980 (JP-59167/80), was refused by the decision of the Examining Division 018 of the European Patent Office on 9 February 1984. The decision was based on Claims 1 to 3.

Claim 1 reads as follows:

"1. A method of producing a single crystal of ferrite wherein a polycrystal of ferrite and a single crystal of ferrite are heated in contact with each other to grow the single crystal of ferrite toward the polycrystal of ferrite, characterized in that the polycrystal of ferrite is produced by using iron oxide containing iron oxide of spinel structure and/or iron oxide having hysteresis of spinel structure in an amount of not less than 60% by weight calculated as Fe_2O_3 , and in that the said heating is effected at a temperature lower than the temperature at which discontinuous grain growth of the polycrystal of ferrite is caused."

II The reason given for the refusal was that the subject-matter of the main claim lacked novelty under Article 54(2) EPC and represented no more than an unpatentable discovery under Article 52(2)(a) EPC. Protection for an identical invention was already obtained by the same Applicant in FR-A-2 957 913 (1) based on the earlier applications JP 67 893/79 (2)

and/or JP 98 055/79 (3) in Japan under the Paris Convention. The priority filing claimed in EU-39 593, i.e. JP 59 167/80, was therefore not to be regarded as the first application and thus cannot give a valid priority under Article 87(1) EPC. In view of this, the publication of specification (1) made the invention available to the public, since this took place before the filing date of the European application.

The decision was based on the assumption that the definitions of the processes in (2) and (3), on the one hand, and in the present application, on the other, were only distinct in form but not in content and scope. In the former, the capability for a discontinuous growth of the polycrystal was emphasized and iron oxides of sufficient purity were recommended in combination with a test for suitability. In the case under appeal the same capability was provided by using iron oxides of spinel structure, or a hysteresis thereof. The comparison of the examples suggested that in reality the same kind of materials had been used. The application thus only represented an unpatentable discovery (Article 52(2)(a) EPC) as well as subject-matter which was identical with that already disclosed in the earlier application by the same Applicant. In view of the loss of priority, there was also a loss of novelty because of (1).

III The Applicant lodged an appeal against this decision on 31 March 1984 with a payment of the fee on 3 April 1984, and filed the Statement of Grounds on 15 June 1984.

IV On behalf of the appellant substantially the following arguments were presented:

- (a) There could be no identity of subject-matter, since the later application represented a substantial improvement over the earlier, basic filings in (2) and (3). The careful comparison of the examples relating to ferrite,

crystals for instance showed that the growth rates were at least ten times better than before. The earlier invention had claimed the basic idea broadly, whilst subsequent developments brought radical improvements and the claims were appropriately narrower. The selection was also represented by the requirement for no less than 60% iron oxide.

- (b) Whilst it became known through the present invention that iron oxide of spinel structure would produce discontinuous growth, this was only a sufficient condition but not a necessary one for success. The possibility existed that iron oxides other than those associated with the spinel structure also exhibited discontinuous growth or at least at a lower level. A similar situation with other kinds of polycrystals appeared to confirm this notion. The conditional statement in the specification (page 7, lines 9-19) that no other iron oxide provided the desired result must not be read out of context. When the degree of overlap between the two disclosures remained uncertain and there was no evidence as to identity, the priority for the new and improved matter should be accepted.
- (c) As a further point it could be argued that even in a case of complete identity of subject-matter, the non-disclosure of the elements and features of the new definition in the earliest filings excludes the possibility of finding support for the new claim in these documents. This was because priority right only arose in relation to "features and elements" actually disclosed in the earlier application according to Article 88(3) EPC. In the absence of support, the matter was new as a disclosure, and no loss of priority could be contemplated.

V The appellant requests that the decision to refuse the application be set aside.

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II

Reasons for the Decision

1. The appeal complies with Articles 106 to 108 and Rule 64 EPC and is, therefore, admissible.
2. The right to priority is governed by Article 87 EPC which requires that the first application for the same invention be filed in a State party to the Paris Convention during a period of 12 months immediately preceding the filing of a European patent application.

Two applications relate to "the same invention" in the meaning of Article 87 EPC when they both contain "the same subject-matter". This follows from Article 87(4) EPC which uses the latter expression. The invention or subject-matter of a previous application is to be considered identical to that of a subsequent one if the disclosure of both applications is the same. Such identicalness does not require identical wording; it is sufficient that the content of both applications - the essence of their disclosure - be the same. Whether the whole of the disclosure of the previous application is also covered by the claims of that application is immaterial since the disclosure may be made elsewhere, for example in the description. This is the conclusion to be drawn from Article 88(4) EPC, according to which it is sufficient that the documents of the previous application as a whole clearly disclose the elements concerned.

Applying these criteria, the applicants were correct in claiming the priority of 2 May 1980 because the subject-matter of the application whose priority was claimed is not identical with that of the earlier Japanese applications (2) and (3).

3. The Examining Division has started from the correct assumption that the inquiry as to identity cannot stop at a formal level and must proceed to find out whether the same invention had in fact been divulged irrespective of formal distinctions in the terms, since these may still cover identical matter. Such principle calls for an investigation as to the essence of the invention in the European patent application in comparison to what was described in both (2) and (3). What is, however, relevant is the technical interpretation of the distinctions in the definition of polycrystals in the processes in these earliest Japanese applications and in the case under appeal.

In the course of such investigations, the recognition of significant distinctions in properties could be indicative of the presence of different materials (cf. "Vinyl ester/crotonic acid copolymers/HOECHST", T 205/83, OJ 12/1985, 363, at p. 367, 3.2.1 last paragraph).

4. The Japanese priority documents (2) and (3) disclose methods for producing a single crystal, including a ferrite crystal, comprising the use of a polycrystal showing "a discontinuous crystal grain growth" at a certain temperature. It is suggested that this polycrystal may have a high purity and it must pass a corresponding test for growth characteristics as shown as curve A in Fig. 1 in both documents. After reasonable trial, polycrystals which show a discontinuous (sudden) growth can be identified and these could then be used for the claimed process. The examples in the document rely on ferric oxides and describe single crystal products of a size from 0.25 to 1.5 mm. The growth rates of crystals with specified sizes only vary from 0.075 to 0.125 mm/hour.

5. The application under appeal on the other hand, discloses the same method for producing ferrite single crystals, except for the definition of the required polycrystal for the purpose. This time the ferrite polycrystal, which is capable of the discontinuous growth, must be provided by using material "containing iron oxide of spinel structure and/or iron oxide having a hysteresis of spinel structure in an amount of no less than 60% by weight calculated as Fe_2O_3 ". The specification explains that the material with the spinel structure is magnetite (Fe_3O_4) or maghemite ($\gamma\text{-Fe}_2\text{O}_3$), whilst the one with a hysteresis of the same is hematite ($\alpha\text{-Fe}_2\text{O}_3$), produced from such magnetite or maghemite (page 3, lines 1 to 6).
6. The results according to the application under appeal rely on the use of iron oxides according to the above definition. Single crystals with sizes up to 5mm have been obtained in a relatively short time, and the growth rate was therefore from 1.25 to 1.65 mm/h. In one Example (Ex. 1(ii)) the size was only 0.5mm but the growth process was interrupted after one hour (i.e. growth rate still 0.5 mm/h). It was also established by comparative tests that the use or addition of iron oxides not having the required spinel structure or hysteresis thereof, to an extent reducing the content of the proper iron oxide to less than 60%, causes a loss in the capability of satisfactory growth of single crystals. The Board is satisfied that the results demonstrated by the Examples of the case under appeal are substantially improved in comparison with those of the Examples of (2) and (3).
7. The Board has no hesitation to construe the examples as representative so that the conclusion is justified that the different results are associated with distinct, non-identical inventions. In view of the above, the processes disclosed in


the priority application JP 59 167/80 and those described in (2) and (3) are not identical. This means that there can be no loss of priority and (1) remains uncitable against the novelty of the application under appeal.

Order

For this reason it is decided that

1. The decision of the Examining Division is set aside.
2. The case is remitted to the Examining Division for further prosecution.

The Registrar



The Chairman

