Paper No. 47

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

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Ex parte MASAHIDE MOHRI,YOSHIO UCHIDA,
YOSHINARI SAWABE, and
HISASHI WATANBE,

_____

Appeal No. 2000-1869
Application 08/922,478

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HEARD: SEPTEMBER 17, 2002

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Before WALTZ, KRATZ and TIMM, Administrative Patent Judges.

WALTZ, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on an appeal from the examiner's refusal to allow claims 1, 4, 7 and 9 through 12 as amended subsequent to the final rejection (see the amendment dated Jan. 27, 1999, Paper No. 35, entered as per the Advisory Action dated Fed. 4, 1999,

Paper No. 36).[1] Claims 1, 4, 7 and 9-12 are the only claims remaining in this application. We have jurisdiction pursuant to 35 U.S.C. § 134.

According to appellants, the invention is directed to a process for producing α-alumina by calcining a transition alumina in an atmosphere containing at least 10% by volume of hydrogen chloride at a temperature of from 700 to 1300°C at atmospheric pressure for a time of 10-120 minutes, where the transition alumina is made by calcining aluminum hydroxide which in turn is produced by the hydrolysis of aluminum isopropoxide (Brief, pages 3-5). A copy of illustrative independent claim 1 is attached as an Appendix to this decision.

The examiner has relied upon the following references as evidence of obviousness:

Lindsay et al. (Lindsay)	3,262,754	Jul. 26, 1966
Harato et al. (Harato)	5,302,368	Apr. 12, 1994

Ayame et al. (Ayame), "Changes in Structure and Acidity of Alumina with Chlorine Treatment," pp. 416-419, 62nd CATSJ Meeting Abstracts: No. 2D105, 1988.[2]

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[1] A minor amendment to correct several typographical errors was filed concurrently with the Brief (Aug. 27, 1999). This amendment was also entered by the examiner (see the Brief, page 3; Answer, page 2; and the Advisory Action dated Oct. 12, 1999, Paper No. 40).

[2] We rely upon a full English translation of this document, previously made of record.

The following rejections are before us in this appeal:[3]

(1) claims 1, 4, 7 and 9-12 stand rejected under 35 U.S.C. § 103 as unpatentable over Harato (Answer, page 3);

(2) the claims on appeal also stand rejected under 35 U.S.C. § 103 as unpatentable over Lindsay (*id.*);

(3) the claims on appeal also stand rejected under 35 U.S.C. § 103 as unpatentable over Ayame (Answer, page 4);

(4) claims 1, 4, 7 and 9-12 stand rejected under the judicially created doctrine of obviousness-type double patenting over claims 1-9, 25-27, 29-52 and 56-64 of copending application S.N. 08/606,679 (Answer, page 4);[4] and

(5) the claims on appeal also stand provisionally rejected under the judicially created doctrine of obviousness-type double patenting over claims 1, 4-13 and 18 of copending application S.N. 08/730,217 (Answer, page 5).[5]

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[3] The final rejection under 35 U.S.C. § 112, first and second paragraphs, was withdrawn in view of appellants' amendment dated Jan. 27, 1999, Paper No. 35, as noted in the Advisory Action dated Feb. 4, 1999, Paper No. 36.

[4] This was a provisional rejection since S.N. 08/606,679 was not allowed as of the date of the Answer (Answer, page 4). We note that this application has now matured into U.S. Patent No. 5,935,550, issued on Aug. 10, 1999, with 37 claims. In view of our decision *infra* and our consideration of the patented claims, no remand is necessary for the examiner to reconsider this rejection in view of the patented claims.

[5] This application is also the subject of an appeal (see Appeal No. 2000-1868 and the Brief, pages 1-2).

We *reverse* all of the rejections on appeal essentially for the reasons stated in the Brief, Reply Brief, and as set forth below.

OPINION

The examiner finds that Harato teaches the process of calcining transition alumina in an atmosphere of hydrogen chloride to form alpha alumina at about 1100°C. (Answer, page 3). The examiner thus finds that Harato differs from the claimed subject matter "in that the % by volume of the hydrogen chloride is not stated." *Id.*

The examiner finds that "Lindsay teaches the claimed process of calcining transition alumina or aluminum hydrate, ie. hydroxide, in an atmosphere of hydrogen chloride at a temperature of about 1200°C to form alpha alumina" (Answer, page 4). The examiner thus finds that Lindsay "differs [from the claimed subject matter] in that the % by volume of the chloride atmosphere is not stated." *Id.*

The examiner finds that "Ayame teaches the claimed process of making alpha alumina by calcining transition alumina at 1000°C in an atmosphere of HCl, ie. hydrogen chloride" where the calcining pressure is 700 torr (*id.*). The examiner concludes

that this pressure "would not be much different" than the claimed atmospheric pressure given experimental error. *Id.*

The examiner finds that the claims of S.N. 08/606,679 "overlap in scope of subject matter claimed." (Answer, page 5). Similarly, the examiner finds that the claims of S.N. 08/730,217 "overlap in scope of subject matter claimed." *Id.*

The claims on appeal require that the transition alumina is obtained by calcination of aluminum hydroxide, which in turn is prepared by hydrolysis of aluminum isopropoxide (e.g., see claim 1 on appeal). On this record, the examiner has not presented any factual findings from any applied reference by citing any disclosure or suggestion (or pointed to any claimed subject matter of copending applications S.N. 08/606,679 or S.N. 08/730,217) regarding the first step in the claimed process, i.e., the hydrolysis of aluminum isopropoxide to form aluminum hydroxide (see the findings discussed above and the Answer in its entirety). On this record, the examiner has not taken notice or cited evidence that the hydrolysis of aluminum isopropoxide to form aluminum hydroxide is conventional or well known in the art (*id.*). As correctly argued by appellants, the teachings of the applied references and the claims of the cited applications do

not disclose aluminum hydroxide prepared from the isopropoxide (e.g., Brief, pages 8 and 13; Reply Brief, pages 2 and 7).

The examiner appears to give no weight to the process limitation that the aluminum hydroxide is formed by hydrolysis of aluminum isopropoxide (Answer, pages 5-6 and 9-10). The examiner states that the aluminum hydroxide of the references "would appear to be the same" as the aluminum hydroxide produced by any other process, such as appellants' claimed process of hydrolysis of aluminum isopropoxide (*id.*). However, appellants are not claiming a product (or product-by-process), but are claiming a process and all limitations of the claims must be considered by the examiner. *See In re Wilder,* 429 F.2d 447, 450, 166 USPQ 545, 548 (CCPA 1970).

For the foregoing reasons, we determine that the examiner has not presented a sufficient factual basis to support a *prima facie* case of obviousness. Accordingly, all of the rejections on appeal are reversed.

The decision of the examiner is reversed.

REVERSED

THOMAS A. WALTZ Administrative Patent Judge)	)	
	)	BOARD OF PATENT
	)	
PETER F. KRATZ Administrative Patent Judge)	)	APPEALS AND INTERFERENCES
	)	
	)	
CATHERINE TIMM Administrative Patent Judge)	)	

TAW:dal

Appeal No. 2000-1869
Application No. 08/922,478

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APPENDIX

1. A process for producing α-alumina by calcining a transition alumina obtained by calcination of aluminum hydroxide prepared by hydrolysis of alumina isopropoxide in an atmosphere containing at least 10% of volume of hydrogen chloride, at a temperature of from 700 to 1,300°C, at atmosphere pressure and for a calcining time of from 10-120 minutes to produce said α-alumina.