

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 16

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte TSUYOSHI MASUMOTO, AKIHISA INOUE, NOBUYUKI NISHIYAMA,  
HIROYUKI HORIMURA AND TOSHISUKE SHIBATA

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Appeal No. 96-2056  
Application No. 08/210,139<sup>1</sup>

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ON BRIEF

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Before GRON, PAK, and WALTZ, Administrative Patent Judges.

WALTZ, Administrative Patent Judge.

**DECISION ON APPEAL**

This is an appeal under 35 U.S.C. § 134 from the examiner's final rejection of claims 11 through 14, which are the only claims remaining in this application.

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<sup>1</sup> Application for patent filed March 17, 1994. According to applicants, the application is a continuation of Application 07/885,480, filed May 19, 1992, now U.S. Patent 5,324,368, issued June 28, 1994.

Appeal No. 96-2056  
Application No. 08/210,139

According to appellants, the invention is directed to a process for forming an amorphous alloy material by holding the material defined by formulas (I) or (II) between frames under pressure and at specified temperatures and times (Brief, pages 1-2). Claim 11 is illustrative of the subject matter on appeal and is attached as an Appendix to this decision.

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

Masumoto et al. (Masumoto '196)      5,032,196      Jul. 16, 1991  
(filed Nov. 5, 1990)

This merits panel cites and relies upon the following reference, not previously of record in this application<sup>2</sup>:

Masumoto et al. (Masumoto '935)      5,074,935      Dec. 24, 1991  
(filed Jun. 22, 1990)

Claims 11 through 14 stand rejected under 35 U.S.C. § 103 as unpatentable over Masumoto '196 (Answer, page 3).<sup>3</sup> We reverse this rejection for reasons which follow.

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<sup>2</sup>A copy of this reference is attached to this decision.

<sup>3</sup>The examiner's final rejection of claims 11-14 under the judicially created doctrine of obviousness-type double patenting over claims 1 and 9 of U.S. Patent No. 5,324,368 (the parent of this application) has been overcome by appellants' submission of a Terminal Disclaimer dated May 30, 1995 (Answer, page 1).

Appeal No. 96-2056  
Application No. 08/210,139

Pursuant to the provisions of 37 CFR § 1.196(b), we enter a new ground of rejection of claims 11 through 14 under 35 U.S.C. 102(e) as anticipated by, or under 35 U.S.C. 103 as unpatentable over Masumoto '935.

#### OPINION

##### *A. The Rejection over Masumoto '196*

Appellants and the examiner agree that Masumoto '196 discloses the molding of alloys within the temperature and time parameters required by the claims on appeal but fails to disclose the compositional formulas recited in these claims (Brief, pages 6-7, Reply Brief, pages 1-2, and the Answer, pages 3-4). As noted by the examiner, the formula in the claims on appeal recites a lanthanide element (or misch metal) while Masumoto '196 "is silent with respect to these elements." (Sentence bridging pages 3-4 of the Answer).

The examiner states that this difference between the claimed subject matter and the prior art "is not seen as a patentable distinction" for two reasons (Answer, page 4). First, the examiner states that "while not matching precisely

Appeal No. 96-2056  
Application No. 08/210,139

in composition undergoing treatment, the processes disclosed in Masumoto ['196] are described as being applicable to alloys of the same family as those recited in General Formula (I) of the appealed claims". Second, the examiner states that "the claims on appeal are drawn to a process, and each step of the process of the appealed claims is recited and exemplified in the Masumoto ['196] reference."

A proper analysis under § 103 requires consideration of whether the prior art would have suggested to those of ordinary skill in the art that they should carry out the claimed process and whether the prior art would also have revealed that in so carrying out, those of ordinary skill would have a reasonable expectation of success. *In re Vaeck*, 947 F.2d 488, 493, 20 USPQ2d 1438, 1442 (Fed. Cir. 1991). Appellants have argued that there is no indication in Masumoto '196 that alloys having a composition different from those taught by the reference would have any advantageous properties (Brief, page 6). Appellants also submit that Masumoto '196 does not disclose and would not have suggested that the process parameters of Example 2 are applicable to other alloys outside of the scope of the reference (Reply Brief, page 1).

Appeal No. 96-2056  
Application No. 08/210,139

The examiner points to no teaching in Masumoto '196 in support of the statement that the alloys of the reference and the appealed claims are "alloys of the same family" or have common characteristics or properties. The examiner has not advanced any evidence or reasoning which supports his position that one of ordinary skill in this art would have reasonably expected that the addition of yttrium or a lanthanide element to the alloy composition of Masumoto '196 would have been successful in the process described by the reference.

Masumoto '196 does teach that the alloys of his invention can contain other elements in minor amounts but fails to disclose or teach yttrium or any lanthanide elements (column 4, lines 51-55). Although Masumoto '196 does teach the steps of the process recited in the claims on appeal using another alloy, the examiner has failed to point to any disclosure or teaching in this reference which defines a class of alloys which would have suggested using the specific alloys recited in the claims on appeal. *In re Ochiai*, 71 F.3d 1565, 1570, 37 USPQ2d 1127, 1131 (Fed. Cir. 1996).

With regard to the examiner's second reason for concluding that the difference between the referenced process

Appeal No. 96-2056  
Application No. 08/210,139

and the claimed process is not a "patentable distinction" (Answer, page 4), the fact that the claims on appeal are directed to a process does not mean that the examiner can ignore differences in the composition of the material involved in the process. *In re Ochiai*, 71 F.3d at 1572, 37 USPQ2d at 1132.

For the foregoing reasons, we determine that the examiner has not established a *prima facie* case of obviousness. Accordingly, the rejection of claims 11-14 under 35 U.S.C. § 103 as unpatentable in view of the teaching of Masumoto '196 is reversed.

*B. The Rejection pursuant to 37 CFR § 1.196(b)*

The Masumoto '935 patent has a different inventive entity than the present application and thus is available as prior art under § 102(e).<sup>4</sup> Masumoto '935 discloses alloy compositions within the scope of General Formula (I) as recited in the claims on appeal (see the abstract or column 1, lines 42-63). Example 3 in column 6 of Masumoto '935 appears

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<sup>4</sup>The U.S. filing date of Masumoto '935 is June 22, 1990, while appellants claim an effective filing date of at best May 31, 1991, the date their foreign priority document was filed in Japan.

Appeal No. 96-2056  
Application No. 08/210,139

to disclose the same process parameters as recited in the claims on appeal, i.e., the alloy powder is loaded into a metal mold and put under pressure for 20 minutes at 550EK. The specific alloy composition of Example 3 in the reference is  $\text{Al}_{35}\text{Ni}_{15}\text{La}_{50}$ , which is within the scope of General Formula (I) as recited in each of claims 11-14. From Figures 3-5 in Masumoto '935, the values for the specific alloy composition of Example 3 can be determined as  $T_g$ =approximately 515EK.,  $T_x$ =approximately 575EK., and  $(T_x - T_g) = 60\text{EK}$  (see also column 5, lines 25-28). Accordingly, the temperature of 550EK. and time of 20 minutes disclosed in Example 3 of the reference meets the process limitations of claims 11 and 13 (a temperature greater than  $T_g$  but less than  $T_x$  for a time up to  $(T_x - T_g)$  in minutes) and claims 12 and 14 (a temperature greater than  $T_g$  and less than  $(T_x + T_g) \times \mathbf{b}$  for a time up to  $(T_x - T_g) \times \mathbf{a}$  in minutes). The disclosure of Masumoto '935 in Example 3 of loading the alloy powder into a metal mold under pressure meets the claimed limitations of "producing a pressure difference between opposite sides of the material, whereby the material is brought into close contact against a forming mold disposed on one side of the material" (claims 11 and 12) and

Appeal No. 96-2056  
Application No. 08/210,139

"producing a pressure difference between opposite sides of the material, whereby a forming mold is pressed against the material" (claims 13 and 14).

Every limitation of appellants' claimed process reasonably appears to be described in Masumoto '935. Therefore, we hereby newly reject claims 11 through 14 under 35 U.S.C. § 102(e) as anticipated by or under 35 U.S.C § 103 as unpatentable over Masumoto '935. See *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977).

This decision contains a new ground of rejection pursuant to 37 CFR § 1.196(b)(amended effective Dec. 1, 1997, by final rule notice, 62 Fed. Reg. 53,131, 53,197 (Oct. 10, 1997), 1203 Off. Gaz. Pat. & Trademark Office 63, 122 (Oct. 21, 1997)).

37 CFR

§ 1.196(b) provides that "[a] new ground of rejection shall not be considered final for purposes of judicial review."

37 CFR § 1.196(b) also provides that the appellant, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise one of the following two options with respect to the new ground of rejection to avoid termination of proceedings (37 CFR

Appeal No. 96-2056  
Application No. 08/210,139

§ 1.197(c)) as to the rejected claims:

(1) Submit an appropriate amendment of the claims so rejected or a showing of facts relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the application will be remanded to the examiner. . . .

(2) Request that the application be reheard under § 1.197(b) by the Board of Patent Appeals and Interferences upon the same record. . . .

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136 (a).

**REVERSED - 37 CFR § 1.196(b)**

Appeal No. 96-2056  
Application No. 08/210,139

TEDDY S. GRON	)	
Administrative Patent Judge	)	
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	)	BOARD OF PATENT
CHUNG K. PAK	)	APPEALS
Administrative Patent Judge	)	AND
	)	INTERFERENCES
	)	
	)	
	)	
THOMAS A. WALTZ	)	
Administrative Patent Judge	)	

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representative.

It is 10-20%, 1-32%, 1-52% and 5-52% in terms of atom percent composition of A, B, C, D, E and F or M, N, O, P, Q, R, S and T, and at least one element selected from the group consisting of A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z or  $M_2^x N_3^y$  or  $M_2^x N_3^y X_3^z$  wherein  $M_2$  is at least one element generally formula (II):

of atom percent; and  
atom percent representative and (a+p) is at least 20% in terms of weight percent; a and p are 22% or less and 30-20% in terms of from the group consisting of A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z or  $M_2^x N_3^y$  wherein  $M_2$  is at least one element selected from the group consisting of A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z or  $M_2^x N_3^y X_3^z$  wherein  $M_2$  is at least one element selected generally formula (I):

any one of the following generally formulas (I) or (II):  
material surface of growing glass transition is represented by a graph on one side of the material, said graph shows a plot of material is plotted into close contact against a formula showing difference between opposite sides of the material, whereby the material is produced into a pressure  
classification temperature (IX) for a time up to (IX - Id) in than its glass transition temperature (Id) and less than its composition and showing the material at a temperature greater the steps of showing the material between frames arranged in surface of growing glass transition, said process comprising  
II. a process for forming an amorphous alloy material

APPENDIX

Appeal No. 96-2056  
Application No. 08/210,139

Appeal No. 96-2056  
Application No. 08/210,139

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***Leticia***

Appeal No. 96-2056  
Application No. 08/210,139

APJ WALTZ

APJ PAK

APJ GRON

DECISION: REVERSED  
Send Reference(s): Yes No  
or Translation (s)  
Panel Change: Yes No  
Index Sheet-2901 Rejection(s): \_\_\_\_\_

Prepared: March 20, 2000

Draft    Final

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PALM / ACTS 2 / BOOK  
DISK (FOIA) / REPORT