The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 24

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte MATTI SIIKA-AHO, JOHANNA BUCHERT,
TAPANI VUORINEN, ANITA TELEMAN, MAIJA TENKANEN,
MICHAEL BAILEY and LIISA VIIKARI

Appeal No. 2001-0355
Application No. 08/750,069

ON BRIEF

Before GARRIS, PAK and LIEBERMAN, Administrative Patent Judges.

GARRIS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on an appeal from the final rejection of claims 1-5 and 7-21. Claim 6, which is the only other claim remaining in the application, stands withdrawn from further consideration by the examiner.

The subject matter on appeal relates to a method for modifying lignocellulosic material characterized in that at least a part of the hexenuronic acid groups of the lignocellulosic material is selectively removed. The appealed subject matter also

relates to an enzyme preparation useful for treatment of lignocellulosic materials which contains hexenuronidase activity together with suitable adjuvents. This appealed subject matter is adequately represented by independent claims 1 and 17 which read as follows:

> 1. A method for modifying lignocellulosic material, characterized in that at least a part of the hexenuronic acid groups of the lignocellulosic material is selectively removed.
>
> 17. An enzyme preparation useful for treatment of lignocellulosic materials, characterized in that it contains an essential amount of hexenuronidase activity together with suitable adjuvents used in enzyme preparations intended for application in the pulp and paper industry.

The prior art set forth below is relied upon by the examiner as evidence of obviousness:

Puls et al. (Puls)	4,200,692	Apr. 29, 1980

Pedersen “On the use of Pulpzyme HA™ for Bleach Boosting”, Natural Pulping, Novo/Nordisk a/s (Sept. 1989).

“Pulpzyme HA™”, Novo Brochure (Sept. 1989)

Admitted Prior Art (Specification, page 1, line 17 - page 2, line 9) based on W0 93/11296

All of the appealed claims stand rejected under the first paragraph of 35 U.S.C. § 112 as being based upon a disclosure which would not enable those with ordinary skill in the art to practice the here claimed invention.

All of the appealed claims also stand rejected under 35 U.S.C. § 103 as being

unpatentable over Pedersen in view of Puls with or without Pulpzyme HA™.

Finally, all of the appealed claims further stand rejected under 35 U.S.C. § 103 as being unpatentable over the admitted prior art.

On page 6 of the brief, under the heading "GROUPING OF CLAIMS" , the appellants state that "[c]laims 17-21 are believed to be separately patentable from claims 1-5 and 7-16". It follows that, in assessing the merits of the rejections before us, we need focus only on independent claims 1 and 17 with which the remaining dependent claims before us will stand or fall. 37 CFR 1.192 (c)(7) (1999).

Rather than reiterate the respective positions advocated by the appellants and by the examiner, we refer to the brief and to the answer for a complete exposition thereof.

OPINION

For the reasons which follow, we will sustain each of the rejections before us in this appeal.

The § 112 rejection

This rejection is based upon the examiner's determination that the appellants' specification disclosure is nonenabling with respect to the here claimed invention

because an acceptable deposit of the strains disclosed in the specification has not been made. See, for example, 37 CFR 1.809 and the Manual of Patent Examining

Procedure (MPEP) chapter 2400 generally and sections 2411, 2411.01 specifically (August 2001). On the record before us, the appellants have not disagreed with the examiner's determination. Instead, the appellants have simply stated that "the strains VTT-E-94549, VTT-E-94559 and VTT-E-85235 have been deposited with the depository of VTT and they could be transferred to an IDA [i.e., International Depository Authority], if that becomes necessary". This statement does not satisfy the requirements of 37 CFR 1.809 (b)(1), and therefore the § 112 rejection must be maintained as proper. See, for example MPEP section 2411.02.

In light of the foregoing, we hereby sustain the examiner's § 112, first paragraph, rejection of all the appealed claims.

The § 103 rejections

The pivotal consideration for each of the examiner's § 103 rejection is whether the enzyme preparations used for treating lignocellulosic material in the Pedersen reference and in the admitted prior art possess hexenuronidase activity, at least inherently, such that at least a part of the hexenuronic acid groups of the lignocellulosic material is selectively removed. According to the appellants, the declaration of record filed February 25, 2000 under 37 CFR § 1.132 evinces that these prior art enzymes "do

not possess hexenuronidase activity" (brief, page 11). The examiner, on the other hand, considers the data in this declaration to show that the degree of hexenuronidase activity required by the independent claims on appeal in fact is exhibited by these prior art enzymes.

In this last mentioned regard, the examiner points out that Table 1 of the declaration shows Pulpzyme™ HA (i.e., the enzyme of Pedersen) lowers the amount of $HexAX_3$ (i.e., by altering it to $HexAX_2$).[1] In the examiner's view, this reduction satisfies the appealed claim 1 requirement that "at least a part of the hexenuronic acid groups of the lignocellulosic material is selectively removed" since the aforementioned $HexAX_3$ constitutes "a part of the hexenuronic acid groups of the lignocellulosic material" and is "selectively removed" (i.e., by alteration to $HexAX_2$).[2]

The examiner's above-discussed reasoning has merit. Perhaps more significantly, this reasoning has not been contested by the appellants with any

reasonable specificity. These circumstances lead us to agree with the examiner that the $HexAX_3$ reduction exhibited by the enzymes of Pedersen and the admitted prior art

[1] The data of declaration Table 1 reflects that Ecopulp X-200 exhibits a similar (albeit smaller) reduction of this type. According to the appellants (see page 3 of the communication filed March 24, 2000 as paper no. 19), "the glucuronidase enzyme present in 'Pulpzyme HA' and 'Ecopulp X-200' is exactly the same enzyme as the one used in PCT 93/11296 [i.e., the admitted prior art]".

[2] The examiner first made these points in the advisory action mailed March 3, 2000 as paper no. 18 in response to the February 25, 2000 filing of the § 1.132 declaration under consideration.

satisfy the hexenuronidase activity required by the independent claims on appeal by reducing the amount of $HexAX_3$ and thereby removing “a part of the hexenuronic acid groups” (appealed independent claim 1). For this reason alone, it would be appropriate to sustain each of the examiner’s § 103 rejections.

The examiner also considers the data of declaration Table 1 to reflect that the prior art enzymes exhibit hexenuronidase activity by reducing the combined total of the $HexAX_3$ and $HexAX_2$ quantities (e.g., the combined total of these quantities on the substrate (i.e., 1140+2310=3450) was reduced after treatment with Pulpzyme HA (i.e., 0+3210=3210)). We are aware that the application file record contains a response to the examiner’s afore noted position which analyzes the declaration and explains that the reduction in combined total quantities observed by the examiner, in fact, does not evince hexenuronidase activity. The proffered analysis and explanation, however, are not presented by the declarant under § 1.132. Rather, the analysis and explanation are presented by the attorney of record in the previously mentioned communication filed March 24, 2000 as paper no. 19. For this reason, the analysis and explanation must be regarded as attorney argument, not evidence.

In sum, the declaration data plainly shows a reduction in total combined

quantities is effected by the prior art enzyme. On the other hand, the record before us provides no way knowing whether the attorney argument concerning this reduction does or does not accurately represent the analysis and explanation of the declaration data by one with an ordinary level of skill in the art. Viewed from this perspective, we consider the argument and evidence of record, on balance, to weigh most heavily in favor of supporting the examiner's position that the reduction in question reflects hexenuronidase activity by the prior art enzyme.

For the above-stated reasons, it our determination that the enzyme preparations used in the Pedersen reference and in the admitted prior art satisfy the hexenuronidase activity required by the independent claims on appeal. We shall sustain, therefore, the examiner's § 103 rejections of all the appealed claims as being unpatentable over Pedersen in view of Puls with or without Pulpzyme HA™ and as being unpatentable over the admitted prior art.

SUMMARY

The decision of the examiner is affirmed.

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

AFFIRMED

BRADLEY R. GARRIS Administrative Patent Judge	)
CHUNG K. PAK Administrative Patent Judge	) BOARD OF PATENT) APPEALS) AND) INTERFERENCES
PAUL LIEBERMAN Administrative Patent Judge	)

BRG/vsh

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