

## **AMENDMENTS TO THE CLAIMS:**

Claims 126-141 are canceled without prejudice or disclaimer. Claims 142-161 are added. The following is the status of the claims of the above-captioned application, as amended.

Claims 1-141 (Canceled).

Claim 142 (New). A method of providing color clarification of laundry, comprising treating the laundry with a soaking, washing or rinsing liquor comprising a polypeptide having cellulase activity selected from the group consisting of:

(a) a polypeptide encoded by a nucleic acid sequence which hybridizes with SEQ ID NO: 7, 9, 13, 15, 21, or 25 carried out in 2 x SSC, 5 x Denhardt's solution, 0.5% (w/v) SDS, 100 micrograms/ml denatured salmon sperm DNA for 20 h at 65°C followed by washes in 5 x SSC at 25°C (2 x 15 minutes), 2 x SSC, 0.5% SDS at 65°C (30 minutes), 0.2 x SSC, 0.5% SDS at 65°C (30 minutes) and finally in 5 x SSC (2 x 15 minutes) at 25°C;

(b) a polypeptide having an amino acid sequence which has a degree of identity of at least 90% with SEQ ID NO: 8, 10, 14, 16, 22, or 26, wherein the degree of identity is determined by means of GAP provided in the GCG program package using settings of a GAP creation penalty of 3.0 and GAP extension penalty of 0.1; and

(c) a fragment of SEQ ID NO: 12.

Claim 143 (New). The method of claim 142, wherein the polypeptide has endoglucanase activity.

Claim 144 (New). The method of claim 143, wherein the polypeptide has a degree of identity of at least 90% with SEQ ID NO: 8.

Claim 145 (New). The method of claim 143, wherein the polypeptide comprises the amino acid sequence of SEQ ID NO: 8.

Claim 146 (New). The method of claim 143, wherein the polypeptide has a degree of identity of at least 90% with SEQ ID NO: 10.

Claim 147 (New). The method of claim 143, wherein the polypeptide comprises the amino acid sequence of SEQ ID NO: 10.

Claim 148 (New). The method of claim 143, wherein the polypeptide has a degree of identity of at least 90% with SEQ ID NO: 14.

Claim 149 (New). The method of claim 143, wherein the polypeptide comprises the amino acid sequence of SEQ ID NO: 14.

Claim 150 (New). The method of claim 143, wherein the polypeptide has a degree of identity of at least 90% with SEQ ID NO: 16.

Claim 151 (New). The method of claim 143, wherein the polypeptide comprises the amino acid sequence of SEQ ID NO: 16.

Claim 152 (New). The method of claim 143, wherein the polypeptide has a degree of identity of at least 90% with SEQ ID NO: 22.

Claim 153 (New). The method of claim 143, wherein the polypeptide comprises the amino acid sequence of SEQ ID NO: 22.

Claim 154 (New). The method of claim 143, wherein the polypeptide has a degree of identity of at least 90% with SEQ ID NO: 26.

Claim 155 (New). The method of claim 143, wherein the polypeptide comprises the amino acid sequence of SEQ ID NO: 26.

Claim 156 (New). The method of claim 143, wherein the polypeptide is a fragment of SEQ ID NO: 12.

Claim 157 (New). The method of claim 142, wherein the laundry is treated in a washing machine.

Claim 158 (New). The method of claim 142, wherein the polypeptide is present in the soaking, washing, or rinsing liquor in an amount of between 1 and 1000 S-CEVU per liter of liquor during machine cycle use conditions.

Claim 159 (New). The method of claim 142, wherein the pH of the soaking, washing, or rinsing liquor is between 6 and 10.5.

Claim 160 (New). The method of claim 142, wherein the temperature is between 15°C and 60°C.

Claim 161 (New). The method of claim 142, wherein the soaking, washing or rinsing liquor further comprises one or more enzymes selected from the group consisting of proteases, cellulases, xylanases, amylases, lipases, peroxidases and laccases.



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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

Patents-US-NY@novozymes.com



## **DETAILED ACTION**

### ***Application Status***

1. Applicant's response filed on March 26, 2014, is acknowledged. The terminal disclaimers filed have been approved by the Office.

### ***Claim Disposition***

2. Claims 1-141 have been canceled. Claims 142-161 have been added and are pending. Claims 142-161 are under examination.

### ***Claim Objection***

3. Claims 142,144, 146, 148, 150, 152, 154 and 157-158 are objected to because of the following informalities:

For clarity and precision of claim language it is suggested that claims 142,144,

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146, 148, 150, 152 and 154 are amended to read, "...the polypeptide has [[a degree of identity of]] at least 90% sequence identity [[with]] to SEQ ID NO: ...".

Claims 157-158 are objected to as depending from a rejected base claim.

Correction is required.

### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 142-156 and 159-161 are rejected under 35 U.S.C. 101 because the claimed invention is not directed to patent eligible subject matter.

Based upon the guidance put forth in the *2014 Procedure for Subject Matter Eligibility Analysis of Claims Reciting Or Involving Laws of Nature/Natural Principles, Natural Phenomena, And/Or Natural products* ("Procedure") with respect to the claim as a whole, claims 142-161 do not recite something significantly different than a judicial exception. The rationale for this determination is explained below.

The claimed invention is directed to "a method of providing color clarification of laundry, comprising **treating the laundry with a soaking, washing or rinsing liquor comprising a polypeptide having cellulase activity** selected from the group consisting of:

(a) a polypeptide encoded by a nucleic acid sequence with hybridizes with SEQ ID NO:

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7, 9, 13, 15, 21, or 25 carried out in 2 x SSC, 5 x Denhardt's solution, 0.5% (w/v) SDS, 100 micrograms/ml denatured salmon sperm DNA for 20 h at 65°C followed by washes in 5 x SSC at 25°C (2 x 15 minutes), 2 x SSC, 0.5% SDS at 65°C (30 minutes), 0.2 x SSC, 0.5% SDS at 65°C (30 minutes) and finally in 5 x SSC (2 x 15 minutes) at 25°C;

(b) a polypeptide having an amino acid sequence which has a degree of identity of at least 90% with SEQ ID NO: 8, 10, 14, 16, 22, or 26, wherein the degree of identity is determined by means of GAP provided in the GCG program package using settings of a GAP creation penalty of 3.0 and GAP extension penalty of 0.1; and

(c) a fragment of SEQ ID NO: 12. The claimed invention encompasses products that appear to be naturally occurring and there are no indicia in the claims representing a product that markedly differs from the naturally occurring product.

There are several Factors to consider that weigh against eligibility, however, only the pertinent ones are provided herein:

Factor (c) is not met, and is directed to whether the claims recite elements/steps in addition with the judicial exception(s) that relate to the judicial exception in a significant way such that the elements/steps are more than nominally, insignificantly or tangentially related to the judicial exception. The instant method recites one step, 'treating' and the single step of treating does not impact the judicial exception. In claim 142 the method recites treating the laundry with a soaking, washing or rinsing liquor comprising a polypeptide, there is no change to the structure of the polypeptide, no requirement of direct contact of the polypeptide with the laundry and no indication of the



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polypeptide being mixed or combined in such a way to alter the naturally occurring polypeptide. The specification identifies the polypeptide as being obtained from natural microorganisms (see page 83 for example). Factor (g) pertains to a product that appears to be a natural product that is not markedly different in structure from the naturally occurring product, however, Factor "g" is not relevant because the claims are directed to processes. Factor (h) addresses the fact that the claim recites elements/steps in addition to the judicial exception(s) at a high level of generality such that substantially all practical applications of the judicial exception(s) are covered. Factor "h" is not informative because while the claims are limited to the use of an enzyme in a method that treats laundry with a liquor comprising the enzyme, the claimed technique is recited at a very high level of generality in that it broadly encompasses the use of any protein encoded by a DNA that hybridizes with the recited structures in the claim and the treating step involves soaking, washing or a rinsing liquor which does not appear to alter the structure of the product in any way. For example, the instant specification discloses the following at page 58,

The DNA sequence of the cDNA encoding the endoglucanase from *Myceliophthora thermophila* is SEQ ID NO: 1 and the corresponding amino acid sequence is SEQ ID NO: 2. The cDNA is obtainable from the plasmid in DSM 9770. The DNA sequence of the cDNA encoding the endoglucanase from *Acremonium sp.* is SEQ ID NO: 7 and the corresponding amino acid sequence is SEQ ID NO: 8. The cDNA is obtainable from the plasmid in DSM 10082. The DNA sequence of the cDNA encoding the endoglucanase from *Thielavia terrestris* is SEQ ID NO: 11 and the corresponding amino acid sequence is SEQ ID NO: 12. The cDNA is obtainable from the plasmid in DSM 10081. The DNA sequence of the cDNA encoding the endoglucanase from *Volutella colletotrichoides* is SEQ ID NO: 21

and the corresponding amino acid sequence is SEQ ID NO: 22. The cDNA is obtainable from the plasmid in DSM 10571", thus the products are from natural organisms. The recited percent language in the claims reads on the natural product since "at least 90%" encompasses a 100%. The claims are given their broadest reasonable interpretation and the pH and temperature recited in some claims are also ineligible because water naturally had a neutral pH of 7 and ambient temperature is 32 degrees is encompassed in the recited range. Further, the limitation of additional enzymes in the composition does not rectify the issues raised because these are also naturally occurring, having no evidence of an altered structure in the claims.

Based upon consideration of claims **142-156 and 159-161** as a whole and the above relevant factors, it is concluded that the claims are not patent eligible, because the claims do not recite something significantly different than the judicial exception since general instructions are provided, no machine or transformation is recited in the claims that integrates the judicial exception, claims simply recite, "treat" via soaking, rinsing or washing which is routine in the art or purely conventional and very general. Therefore claims **142-156 and 159-161** are rejected as ineligible subject matter under 35 U.S.C. 101.

### ***Response to Arguments***

5. Applicant's comments have been considered in full, withdrawn objections/rejections will not be discussed herein as applicant's comments are moot.

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Note that a new ground of rejection has been instituted under 35 USC 101 based on the amendments made to the claims for the reasons set forth above.

### ***Conclusion***

6. No claims are allowable.

7. Applicant's amendment necessitated the new/modified ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hope A. Robinson whose telephone number is 571-272-0957. The examiner can normally be reached on Monday-Friday from 9:00 a.m. to 5:30 p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Mondesi, can be reached at (571) 272-0956.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Hope A. Robinson/

Primary Examiner, Art Unit 1652