

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

To:

see form PCT/ISA/220

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/EP2016/080371

International filing date (day/month/year)
09.12.2016

Priority date (day/month/year)
10.12.2015

International Patent Classification (IPC) or both national classification and IPC
INV. D06P5/13 D06P5/15 D06M10/00 D06M11/58

Applicant
ACTICELL GMBH

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step and industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

Name and mailing address of the ISA:



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Date of completion of
this opinion

see form
PCT/ISA/210

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Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of:
 - ☒ the international application in the language in which it was filed.
 - ☐ a translation of the international application into , which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1 (b)).
2. ☐ This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43bis.1(a))
3. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of a sequence listing:
 - a. ☐ forming part of the international application as filed:
 - ☐ in the form of an Annex C/ST.25 text file.
 - ☐ on paper or in the form of an image file.
 - b. ☐ furnished together with the international application under PCT Rule 13ter.1(a) for the purposes of international search only in the form of an Annex C/ST.25 text file.
 - c. ☐ furnished subsequent to the international filing date for the purposes of international search only:
 - ☐ in the form of an Annex C/ST.25 text file (Rule 13ter.1(a)).
 - ☐ on paper or in the form of an image file (Rule 13ter.1(b) and Administrative Instructions, Section 713).
4. ☐ In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that forming part of the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
5. Additional comments:

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	<u>1-25</u>
	No: Claims	
Inventive step (IS)	Yes: Claims	<u>1-25</u>
	No: Claims	
Industrial applicability (IA)	Yes: Claims	<u>1-25</u>
	No: Claims	

2. Citations and explanations

see separate sheet

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

1 **Re Item V**

Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1.1 Reference is made to the following documents:

D1 US 5 567 207 A (LOCKMAN WILLIAM J [US] ET AL) 22 October 1996 (1996-10-22) cited in the application

D2 GB 264 021 A (HANS LEVY DIEM) 13 January 1927 (1927-01-13)

D3 GB 469 091 A (COLORAY CORP) 19 July 1937 (1937-07-19)

1.2 The application does not meet the requirements of Article 6 PCT. See below item VIII.

1.3 D3 is regarded as being the prior art closest to the subject-matter of claim 1 and discloses:

A method for changing the color of a dyed textile material comprising the steps of:

- a. applying a leaser beam to the textile material, and thereby
- b. creating a color change.

The subject-matter of claim 1 therefore differs from this known method in that a pretreatment with at least one nitrate salt and a drying step of the pretreated fabric at temperatures less than 60°C is performed and is therefore new (Article 33(2) PCT).

The technical effect seems to be the an improved fading, lesser fabric damage and better chemical uptake of the treated areas (see paragraph [0091] of the present application).

The problem to be solved by the present invention may be regarded as providing a method for changing the color of a textile material with improved fading, lesser fabric damage and better chemical uptake of the treated areas.

The solution to this problem proposed in claim 1 of the present application is considered as involving an inventive step (Article 33(3) PCT) for the following reasons: Although laser treatments to fade textile materials are well known in the art the solution proposed seems to involve an inventive step since there is no suggestion in the prior art to enhance the fading power of the laser treatment and decrease fabric damage as well as provide a textile material

with better chemical uptake by including a nitrate compound in a pretreatment composition which activated by the laser will produce the effects mentioned above.

- 1.4 The same reasoning applies, mutatis mutandis, to the subject-matter of the corresponding independent claim 25, which therefore is also considered new and inventive.
- 1.5 Claims 2-24 are dependent on independent claim 1 whose subject-matter is considered as being new and inventive, as discussed above, and as such said dependent claims also meet the requirements of the PCT with respect to novelty and inventive step.

2 Re Item VIII

Certain observations on the international application

- 2.1 The application does not meet the requirements of Article 6 PCT, because claims 1, 11, 13, 18 and 21 are not clear.
- 2.2 The term "leaser beam" used in claim 1, abstract and paragraph [0010] appears to be an obvious mistake. The applicant clearly seems to mean a "laser beam". Correction in the sense of an obvious mistake appears allowable (Rule 91.1 PCT).
- 2.3 The expression "or at higher temperature where applicable, if the acid catalyst decreases the activation temperature in comparison to the pure nitrate" used in claim 11 is vague and unclear and leaves the reader in doubt as to the meaning of the technical feature to which it refers, thereby rendering the definition of the subject-matter of said claim unclear, Article 6 PCT.
- 2.4 Claims 13 and 21 are not clear in that they contain expressions in brackets. These expressions are not reference signs in the sense of Rule 6.2(b) but are special features. It is hence unclear whether the features added in the brackets are limiting or not. Accordingly, such bracketed features are not permissible.
- 2.5 Claim 18 contains only an optional feature which is not limiting the scope of the claim. Said claim is therefore redundant.
- 2.6 The subject-matter described in paragraphs [0001], [0036]-[0038], [0044]-[0045], [0049] and [00147] does not fall within the scope of the claims. This inconsistency between the claims and the description leads to doubt concerning the matter for which protection is sought, thereby rendering the claims unclear, Article 6 PCT.

- 2.6.1 Paragraph [0001] defines that the present invention relates to "non hazardous methods to improve the treatment of a fabric and specifically to increase the abrasion intensity of laser treated fabric". This is however not reflected by the claims.
- 2.6.2 Furthermore, it is clear from claim 1 that a drying step at a temperature less than 60°C is an essential feature while in paragraphs [0036]-[0038], [0044]-[0045] and [0049] a temperature less than 60°C is listed as an exemplary feature ("...drying step (e.g. less than 60 °C)"; emphasis added).
- 2.6.3 The same applies for particular examples which indicate: "the color changing effect is then generated with irradiation e.g. laser" (paragraph [00147]; emphasis added). However it is clear from claim 1 that applying a laser beam is an essential feature.
- 2.7 Moreover, paragraphs [00152] - [00162] describe examples which do not fall within the scope of claims and should be therefore renamed accordingly.