

PATENT COOPERATION TREATY

From the
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To:

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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/EP2018/076433

International filing date (day/month/year)
28.09.2018

Priority date (day/month/year)
29.09.2017

International Patent Classification (IPC) or both national classification and IPC
INV. B42D25/324 B42D25/435

Applicant
SICPA HOLDING SA

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>1-15</u>
	No: Claims	
Inventive step (IS)	Yes: Claims	
	No: Claims	<u>1-15</u>
Industrial applicability (IA)	Yes: Claims	<u>1-15</u>
	No: Claims	

2. Citations and explanations

see separate sheet

Point V:

The solution proposed in following claim 1 of the present application cannot be considered as involving an inventive step (Article 33(3) PCT) for the following reasons:

claim 1:

Document DE 10 2007 019 522 A1 (D1), which is considered to represent the most relevant state of the art, discloses an:

"optical security element (70, see figure 8) comprising a refractive (see § 57, line 4) transparent or partially transparent (see § 56, lines 1,2:

"Durchsichtssicherheitselement") light-redirecting surface (78) of refractive index n , having a relief pattern (78) of depth δ adapted to redirect incident light received from a point-like source (see § 55, lines 5,6), at a distance d_s

(see figure 3 (b): from § 55 and the flow of the description it should be clear that the optical security element of figure 8 is to be used as in figure 3(b))

from the light-redirecting surface (78, corresponding with the surface of 34 in figure 3(b)) , and form a projected image (46) containing a caustic pattern (following the definition of "caustic" on page 11, lines 9-22 of the current application) on a projecting surface (48), said said caustic pattern reproducing a reference pattern (included in the microstructures of surface 78), whereby:

a profile of the relief pattern has abrupt variations (see figure 8) according to a calculated relief pattern profile having discontinuities, said abrupt variations corresponding to the discontinuities"

from which the subject-matter of claim 1 only differs in that:

F1:

"then abrupt variations are formed by machining",

whereas in d1 they are formed by embossing, see § 56, line 8.

The problem to be solved by the present invention may therefore be regarded in finding an alternative fabrication method for then abrupt variations of the relief.

Machining of refractive surfaces with abrupt variations is generally known though, see e.g. EP 2 927 013 A1 (D2) § 39 (laser engraving), D2 thus disclosing feature F1.

The skilled man would obviously incorporate feature F1 of D2 in D1, solving the problem, arriving obviously at the subject-matter of claim 1.

Therefore, the subject-matter of claim 1 does not involve an inventive step (Article 33(3) PCT).

The "reflective" version of claim 1 is not inventive over DE 10 2010 049 617 (D3) with D2, for similar reasons, see especially figures 1 and 2 of D3.

claims 2,3,10-12:

See D1 with D2 and WO 2011/138394 A1 (D4), figure 6.

claims 4-7:

The values mentioned in these claims are regarded as random values without any inventive surprising effects.

claim 8:

See especially D1, § 2.

claim 9:

See here above under claim 1.

claims 13-15:

it is generally known to make replica from a master e.g. by embossing.