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SUPPLEMENTARY EUROPEAN SEARCH REPORT

Application number:
EP 15 90 24 10

Classification of the application (IPC):
B42D 25/36, ***B42D 25/382***, ***B42D 25/387***, ***B42D 25/29***, ***G07D 7/12***, ***G07D 7/185***, B42D, G01N
G01N 15/08

Technical fields searched (IPC):
B42D, G01N

DOCUMENTS CONSIDERED TO BE RELEVANT		
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim
X Y	US 2014159860 A1 (LAWANDY NABIL [US]) 12 June 2014 (2014-06-12) * paragraph [0008] - paragraph [0050]; claims 1-8; figures 1-10 *	1-5, 9, 10 6-8, 13, 14
X Y	US 9075020 B2 (LAWANDY NABIL M [US]; SPECTRA SYSTEMS CORP [US]) 07 July 2015 (2015-07-07) * column 2, line 10 - column 7, line 58; claims 1-9; figures 1-4 *	1-4, 9, 10 6-8
Y	US 2013234043 A1 (HUSSAIN KHALID [US] ET AL) 12 September 2013 (2013-09-12) * paragraph [0008] - paragraph [0072]; claims 1-48; figures 1-10 *	6-8
X Y	WO 2015066716 A2 (SPECTRA SYSTEMS CORP [US]) 07 May 2015 (2015-05-07) * paragraph [0026] - paragraph [0051]; claims 1-58; figures 1-5 *	11, 12 13, 14

The supplementary search report has been based on the last set of claims valid and available at the start of the search.

Place of search	Date of completion of the search	Examiner
Munich	23 July 2019	Seiler, Reinhold

CATEGORY OF CITED DOCUMENTS

X: particularly relefant if taken alone
Y : particularly relefant if combined with another document of the same category
A: technological background
O: non-written disclosure
P: intermediate document
T: theory or principle underlying the invention
E: earlier patent document, but published on, or after the filing date
D: document cited in the application
L: document cited for other reasons
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LACK OF UNITIY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claims: 1-10
A secured article having a security feature emitting at different wavelengths when exposed to changes in gas environment.

2. claims: 11-14
A method of authenticating a secured article by determining a porosity of the secured article.

1. The application lacks unity within the meaning of Article 82 EPC.
2. The reasons for which the inventions are not so linked as to form a single general inventive concept are as follows:
2.1 Common technical features and disclosure of relevant prior art
The technical features of
"a secured article comprising an embedded security feature emitting at different wavelengths when exposed to changes in gas environment, wherein the security feature emits a first spectral emission when exposed to excitation energy in a first gas environment, said first emission changing to a second spectral emission upon exposure to a change in the gas environment",
are the common technical features of independent claims 1 and 11.
2.1.2 The most relevant prior art has been identified as document D1 (= US 2014/159860 A1), which discloses a secured article (2) comprising an embedded security feature (4) emitting at different wavelengths when exposed to changes in gas environment, wherein the security feature (4) emits a first spectral emission when exposed to excitation energy in a first gas environment, said first emission changing to a second spectral emission upon exposure to a change in the gas environment (see paragraphs [0030] to [0034], claims 1 to 8 and Fig. 1).
In addition, document D2 (= US 9 075 020 B2) also discloses
a secured article (2) comprising an embedded security feature (4) emitting at different wavelengths when exposed to changes in gas environment, wherein the security feature (4) emits a first spectral emission when exposed to excitation energy in a first gas environment, said first emission changing to a second spectral emission upon exposure to a change in the gas environment (see column 5, line 25 to column 6, line 29, claims 1 to 9 and Fig. 1).
Therefore, the common inventive concept of independent claims 1 and 11 is known from both document D1 and document D2.
2.2 Based on this common inventive concept the following inventions are defined by the claims:
2.2.1 According to claims 1 to 10 the first invention relates to a secured article comprising as essential technical features a security feature emitting at different wavelengths when exposed to changes in gas environment.
2.2.2 According to claims 11 to 14 the second invention relates to a method of authenticating a secured article comprising as essential process features the step of determining a porosity of the secured article.
2.2.3 However, a secured article of the first invention is not necessarily restricted to include all the same or corresponding technical features of the method according to the second invention, nor vice versa.
2.3 Therefore, it is obvious for the person skilled in the art that, besides the common inventive concept known from the prior art as outlined at point 2.1.2 above, no other common inventive concept exists between the subject-matter of independent claims 1 and 11.
Accordingly, the application lacks unity within the meaning of Article 82 and Rule 44 (1) EPC.

The supplementary search report has been based on the last set of claims valid and available at the start of the search.

Place of search	Date of completion of the search	Examiner
Munich	23 July 2019	Seiler, Reinhold

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LACK OF UNITIY OF INVENTION

All further search fees have been paid within the fixed time limit. The present (supplementary) European search report has been drawn up for all claims.

The supplementary search report has been based on the last set of claims valid and available at the start of the search.

Place of search	Date of completion of the search	Examiner
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ANNEX TO SUPPLEMENTARY EUROPEAN SEARCH REPORT

Application number:
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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on 23-07-2019
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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2014159860 A1	12-06-2014	BR 112012020191 A2	08-05-2018
		CA 2789355 A1	11-08-2011
		CN 102906558 A	30-01-2013
		CN 104914094 A	16-09-2015
		EP 2531833 A1	12-12-2012
		HK 1210268 A1	15-04-2016
		US 2011199222 A1	18-08-2011
		US 2014159860 A1	12-06-2014
		US 2015360502 A1	17-12-2015
		WO 2011097495 A1	11-08-2011
US 9075020 B2	07-07-2015	BR 112012020191 A2	08-05-2018
		CA 2789355 A1	11-08-2011
		CN 102906558 A	30-01-2013
		CN 104914094 A	16-09-2015
		EP 2531833 A1	12-12-2012
		HK 1210268 A1	15-04-2016
		US 2011199222 A1	18-08-2011
		US 2014159860 A1	12-06-2014
		US 2015360502 A1	17-12-2015
		WO 2011097495 A1	11-08-2011
US 2013234043 A1	12-09-2013	AU 2013229916 A1	25-09-2014
		CN 104272139 A	07-01-2015
		EP 2823340 A1	14-01-2015
		EP 3407263 A1	28-11-2018
		US 2013234043 A1	12-09-2013
		US 2016185152 A1	30-06-2016
		US 2018022145 A1	25-01-2018
		US 2019126662 A1	02-05-2019
		WO 2013134654 A1	12-09-2013
WO 2015066716 A2	07-05-2015	EP 3066650 A2	14-09-2016
		US 2016178501 A1	23-06-2016
		WO 2015066716 A2	07-05-2015

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