

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. claims: 2, 3(in full); 1, 4-15(in part)

A method for producing a complex geometric component containing carbon, involving the following steps: a) providing a carbon-based green body which is produced in a 3D printing method, and b) recompacting the green body by means of chemical gas phase infiltration.

2. claims:

A method for producing a complex geometric component containing silicon carbide, involving the following steps: a) providing a silicon carbide-based green body which is produced in a 3D printing method, and b) recompacting the green body by means of chemical gas phase infiltration.

1. As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. As all searchable claims could be searched without effort justifying additional fees, this Authority did not invite payment of additional fees.
3. As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/EP2018/076544

A. CLASSIFICATION OF SUBJECT MATTER

C04B 35/52(2006.01)i; C04B 35/532(2006.01)i; C04B 35/565(2006.01)i

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

C04B; B28B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-Internal, WPI Data, INSPEC, COMPENDEX

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X Y	WO 2017089500 A2 (SGL CARBON SE [DE]) 01 June 2017 (2017-06-01) page 2, line 16 - page 5, line 22 page 5, line 5 - line 22; examples 1-5	1-5,10-15 7-9
X Y	XU YI ET AL. "Three dimensional printing of carbon/carbon composites by selective laser sintering" CARBON, GB, Vol. 96, 01 January 2016 (2016-01-01), pages 603-607 DOI: 10.1016/j.carbon.2015.09.110 ISSN: 0008-6223, XP055529468 page 603, right-hand column - page 604, left-hand column; figure 4	1,4-6,11-15 7-9
Y	US 2010000831 A1 (FARIA JULIO JOSEPH [GB] ET AL) 07 January 2010 (2010-01-07) claim 25	7-9
X	CN 107098714 A (XI'AN JIAOTONG UNIV) 29 August 2017 (2017-08-29) claim 1	1,4,10,11
X	US 2017151712 A1 (LA FOREST MARK L [US] ET AL) 01 June 2017 (2017-06-01) paragraphs [0014], [0065], [0079]	1,4-9,11

 Further documents are listed in the continuation of Box C. See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

05 March 2019

Date of mailing of the international search report

26 March 2019

Name and mailing address of the ISA/EP

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/EP2018/076544

C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 7332195 B2 (HONEYWELL INT INC [US]) 19 February 2008 (2008-02-19) claim 1	1-15
X	US 2016272548 A1 (LYNEN ARTHUR [DE] ET AL) 22 September 2016 (2016-09-22) paragraph [0019]; claims 1-3	1,4,11

INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.

PCT/EP2018/076544

Patent document cited in search report			Publication date (day/month/year)	Patent family member(s)			Publication date (day/month/year)
WO	2017089500	A2	01 June 2017	CN	108290795	A	17 July 2018
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				EP	3380444	A2	03 October 2018
				US	2018346384	A1	06 December 2018
				WO	2017089500	A2	01 June 2017
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				WO	2007012865	A1	01 February 2007
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				WO	2006026455	A1	09 March 2006
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				US	2016272548	A1	22 September 2016
				WO	2015055264	A2	23 April 2015