

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/CN2019/100164

**A. CLASSIFICATION OF SUBJECT MATTER**

F27B 19/04(2006.01)i; C04B 7/24(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)

F27B19/-;C04B7/-

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)

CNABS; CNTXT; DWPI; 读秀; 中国期刊全文数据库; 天津水泥工业设计研究院, 水泥, 预分解窑, 冷却机, 分解炉, 旋风预热器, 烟室, 三次风管, 回转窑, 自富集, predecomposition, heater, cement, rotary, kiln, pipeline

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

| Category* | Citation of document, with indication, where appropriate, of the relevant passages  | Relevant to claim No. |
|-----------|---|-----------------------|
| A         | CN 101608866 A (TIANJIN CEMENT INDUSTRY DESIGN & RESEARCH INSTITUTE CO., LTD.) 23 December 2009 (2009-12-23)<br>description, page 2, paragraphs 2-4, figure 2 | 1-16                  |
| A         | CN 103304168 A (NINGXIA PINGLUO HENGDA CEMENT CO., LTD.) 18 September 2013 (2013-09-18)<br>description, paragraph [0015]                                      | 1-16                  |
| A         | CN 103588399 A (NANJING TECH UNIVERSITY) 19 February 2014 (2014-02-19)<br>description, paragraphs [0017]-[0018]   | 1-16                  |
| A         | CN 107758712 A (TIANJIN CEMENT INDUSTRY DESIGN & RESEARCH INSTITUTE CO., LTD.) 06 March 2018 (2018-03-06)<br>description, paragraphs [0014]-[0019]            | 1-16                  |
| A         | KR 20180016728 A (SUNGSHIN CEMENT CO., LTD.) 19 February 2018 (2018-02-19)<br>abstract  | 1-16                  |
| A         | JP 2013133254 A (TAIHEIYO CEMENT CORP.) 08 July 2013 (2013-07-08)<br>abstract   | 1-16                  |

 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

21 April 2020

Date of mailing of the international search report

09 May 2020

Name and mailing address of the ISA/CN

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**INTERNATIONAL SEARCH REPORT**  
**Information on patent family members**

International application No.

**PCT/CN2019/100164**

| Patent document cited in search report |             |   | Publication date (day/month/year) | Patent family member(s) |            |    | Publication date (day/month/year) |
|--|-------------|---|-----------------------------------|-------------------------|------------|----|-----------------------------------|
| CN                                     | 101608866   | A | 23 December 2009                  | CN                      | 101608866  | B  | 25 August 2010                    |
|  |             |   |                                   | WO                      | 2011009321 | A1 | 27 January 2011                   |
| CN                                     | 103304168   | A | 18 September 2013                 | CN                      | 103304168  | B  | 03 December 2014                  |
| CN                                     | 103588399   | A | 19 February 2014                  | None                    |            |    |                                   |
| CN                                     | 107758712   | A | 06 March 2018                     | None                    |            |    |                                   |
| KR                                     | 20180016728 | A | 19 February 2018                  | KR                      | 101915468  | B1 | 06 November 2018                  |
| JP                                     | 2013133254  | A | 08 July 2013                      | JP                      | 5911091    | B2 | 27 April 2016                     |