

From the INTERNATIONAL BUREAU

PCT

NOTIFICATION OF TRANSMITTAL OF COPIES
OF TRANSLATION OF THE INTERNATIONAL
PRELIMINARY REPORT ON PATENTABILITY
(CHAPTER I OR CHAPTER II OF THE
PATENT COOPERATION TREATY)

(PCT Rules 44bis.3(c) and 72.2)

To:

SONN PATENTANWÄLTE GMBH & CO KG
Riemergasse 4
A-1010 Wien
AUTRICHE

Date of mailing (*day/month/year*)
22 May 2025 (22.05.2025)

Applicant's or agent's file reference
52422

IMPORTANT NOTIFICATION

International application No.
PCT/IB2023/061332

International filing date (*day/month/year*)
09 November 2023 (09.11.2023)

Applicant

HOLCIM TECHNOLOGY LTD

1. Transmittal of the translation to the applicant.

- ☒ The International Bureau transmits herewith a copy of the English translation of the international preliminary report on patentability (Chapter I).
- ☐ The International Bureau transmits herewith a copy of the English translation of the international preliminary report on patentability (Chapter II).

2. Transmittal of the copy of the translation to the designated or elected Offices.

The International Bureau notifies the applicant that copies of that translation have been transmitted to the following designated or elected Offices requiring such translation:

None

The following designated or elected Offices, having waived the requirement for such a transmittal at this time, will receive copies of that translation from the International Bureau only upon their request:

AE, AG, AL, AM, AO, AP, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CV, CZ, DE, DJ, DK, DM, DO, DZ, EA, EC, EE, EG, EP, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IQ, IR, IS, IT, JM, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, MG, MK, MN, MU, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OA, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS, ZA, ZM, ZW

3. Reminder regarding translation into (one of) the official language(s) of the elected Office(s).

The applicant is reminded that, where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary report on patentability (Chapter II).

It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned within the applicable time limit (Rule 74.1). See Introduction to the National Phase of the *PCT Applicant's Guide* for further details.

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PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44*bis*)

Applicant's or agent's file reference 52422	FOR FURTHER ACTION		See item 4 below
International application No. PCT/IB2023/061332	International filing date (<i>day/month/year</i>) 09 November 2023 (09.11.2023)	Priority date (<i>day/month/year</i>) 15 November 2022 (15.11.2022)	
International Patent Classification (IPC) or national classification and IPC See relevant information in Form PCT/ISA/237			
Applicant HOLCIM TECHNOLOGY LTD			

1. This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 *bis*. I(a).
2. This REPORT consists of a total of 5 sheets, including this cover sheet.

In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.

3. This report contains indications relating to the following items:

☒	Box No. I	Basis of the report
☐	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 Article 35(2) 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
4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44*bis*.3(c) and 93*bis*.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44*bis* .2).

	Date of issuance of this report 29 April 2025 (29.04.2025)
The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Authorized officer Cécile Chatel e-mail ro.ib@wipo.int

From the INTERNATIONAL SEARCHING AUTHORITY

To:

PCTWRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Applicant's or agent's file reference 52422		Date of mailing (day/month/year)	06 February 2024
		FOR FURTHER ACTION See paragraph 2 below	
International application No. PCT/IB2023/061332	International filing date (day/month/year) 09 November 2023	Priority date (day/month/year) 15 November 2022	
International Patent Classification (IPC) or both national classification and IPC C04B 7/36(2006.01)i			
Applicant HOLCIM TECHNOLOGY LTD			

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 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/	Date of completion of this opinion	Authorized officer

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/IB2023/061332

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:

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/IB2023/061332

Box No. V

Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step and industrial applicability;
citations and explanations supporting such statement

1. Statement

Novelty (N)

Claims 1-8 YES

Claims NO

Inventive step (IS)

Claims 1-8 YES

Claims NO

Industrial applicability (IA)

Claims 1-8 YES

Claims NO

2. Citations and explanations:

See Supplemental Box

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/IB2023/061332

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of:

Box V

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

[1] Reference is made to the following documents:

D1 (JP 2022 129625 A) describes a chlorine bypass plant and a method for operating it, a cement clinker production apparatus and a cement clinker production method.

D2 (JP 2021 147294 A) describes a method for processing chlorine bypass dust and a production method for cement.

D3 (JP 2021 147294 A) describes a method for burning waste plastics in a rotary kiln.

[2] The present application meets the requirements of PCT Article 33(1) because the subject matter of the claims is novel (PCT Article 33(2)).

- [2.1] Claim 1 defines a method for processing dust containing organic residues in a cement production plant, comprising the dust being introduced into the chlorine bypass.

Burning of organic matter in the chlorine bypass is not described in any of the documents.

The subject matter of the claims is therefore novel.

[3] The present application meets the requirements of PCT Article 33(1) because the subject matter of the claims involves an inventive step (PCT Article 33(3)).

[3.1] Closest prior art

D1 describes a method with a chlorine bypass.

Burning of organic matter in the chlorine bypass is not described.

[3.2] Technical effect and problem to be solved

The effect is the utilization of the thermal energy present in the chlorine bypass to eliminate the organic residues in the dust by burning (page 2, paragraph 4).

- [3.3] Proceeding from D1, therefore, the problem is that of enabling a more efficient method for using alternative fuels and using raw materials containing unwanted organic matter in order to produce cement clinker.

[3.4] Solution

The method of claim 1.

[3.5] Why the solution is not obvious

The literature neither describes nor suggests the burning of organic residues in the chlorine bypass.