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(54) Title: METHOD FOR THERMAL MODIFICATION OF WOOD, AS WELL AS A CONTROL PROGRAM FOR CARRYING OUT THE IMPROVED METHOD

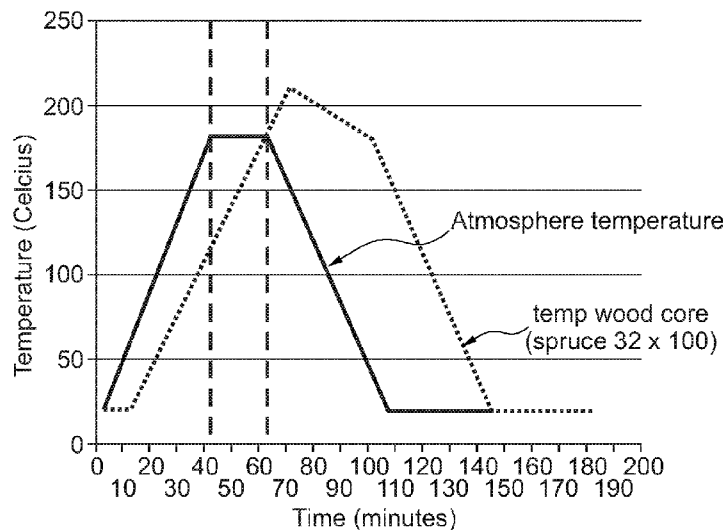


Fig. 1

(57) Abstract: Method for thermal modification of wood, comprising the following steps: a. placing a temperature probe in a central/core part of the wood to be treated or in a sample of the wood to be treated; b. placing the wood and optionally the sample to be treated in a treatment chamber, said treatment chamber, during the wood modification being closed from the ambient environment; c. providing an inert gas atmosphere inside the closed treatment chamber; d. providing temperature measurement inside the treatment chamber; e. heating the atmosphere in the treatment chamber to between 160 to 195 °C; f. shutting off the heating once the temperature in the wood reaches the woods exothermic peak; g. opening the treatment chamber and taking out the treated wood when the temperature in the atmosphere is below 50 °C.



EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV,
MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM,
TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,
KM, ML, MR, NE, SN, TD, TG).

Published:

- *with international search report (Art. 21(3))*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*

(88) Date of publication of the international search report:

22 February 2018 (22.02.2018)

INTERNATIONAL SEARCH REPORT

International application No
PCT/DK2017/050231

A. CLASSIFICATION OF SUBJECT MATTER
INV. B27K5/00
ADD.

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)
B27K

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

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 2012/172585 A2 (PAGNOZZI ERNESTO [IT]) 20 December 2012 (2012-12-20) page 21, lines 11-14 page 22, lines 2-17 -----	1-6
A	EP 0 922 918 A1 (STELLAC OY [FI]) 16 June 1999 (1999-06-16) paragraphs [0018] - [0019]; figure 1 -----	1-6
A	EP 2 998 087 A2 (ROYAL TERMO TR APS [DK]) 23 March 2016 (2016-03-23) paragraphs [0013] - [0015] -----	1-6



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

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"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

27 October 2017

Date of mailing of the international search report

11/01/2018

Name and mailing address of the ISA/

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/DK2017/050231

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

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:

see additional sheet

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 an 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.:

1-6

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.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-6

method for thermally treating wood

2. claims: 7, 8

system comprising a control unit employing two sensors and a controlling program

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/DK2017/050231

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