Abstract:
A system for gasifying biomass materials is provided. The system includes a gasifying unit for converting the biomass materials into a gas and a feeder mechanism for introducing the biomass materials into the gasifying unit. The gasifying unit includes a plurality of gasifying medium and biomass injection ports distributed along a vertical length of the gasifying unit, and each of the plurality of injection ports has a corresponding injection angle. The injection angles include at least one of an upward tangential angle and a downward tangential angle.
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: 28 June 2012
INTERNATIONAL SEARCH REPORT

A. CLASSIFICATION OF SUBJECT MATTER

ClOJ 3/72(2006.01)i, B09B 3/00(2006.01)i, CIOB 53/02(2006.01)i, ClOJ 3/00(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)
ClOJ 3/72; ClOJ 3/00; ClOJ 3/68; ClOJ 3/48; B01J 19/00; ClOJ 3/10

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
Korean utility models and applications for utility models
Japanese utility models and applications for utility models

Electronic database consulted during the international search (name of database and, where practicable, search terms used)
eKOMPASS(KIPO internal) & Keywords: gasifying, biomass, medium injection port, feeder mechanism

C. DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
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<tr>
<th>Category</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
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<tr>
<td>A</td>
<td>US 2010-0162625 Al (MILLS KEVIN J.) 01 July 2010 See the abstract, f.ig. 1-9b, paragraph &lt;54&gt;- paragraph &lt;80&gt;</td>
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<td>US 2009-0199479 Al (TAYLOR DAVID W.) 13 August 2009 See the abstract, f.ig. 4, paragraph &lt;221&gt;- paragraph &lt;227&gt;</td>
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<td>A</td>
<td>US 2008-0155899 Al (RAMAMURTHY PRITHAM) 03 July 2008 See the whole document</td>
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</table>

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

* Special categories of cited documents:
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"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
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Date of the actual completion of the international search
30 APRIL 2012 (30.04.2012)

Date of mailing of the international search report
01 MAY 2012 (01.05.2012)

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Form PCT/ISA/210 (second sheet) (July 2009)
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<td>US 2010-0 162625 A1</td>
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<td>US 2009-0241816 A1</td>
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