

(19)



Europäisches Patentamt

European Patent Office

Office européen des brevets

(11)

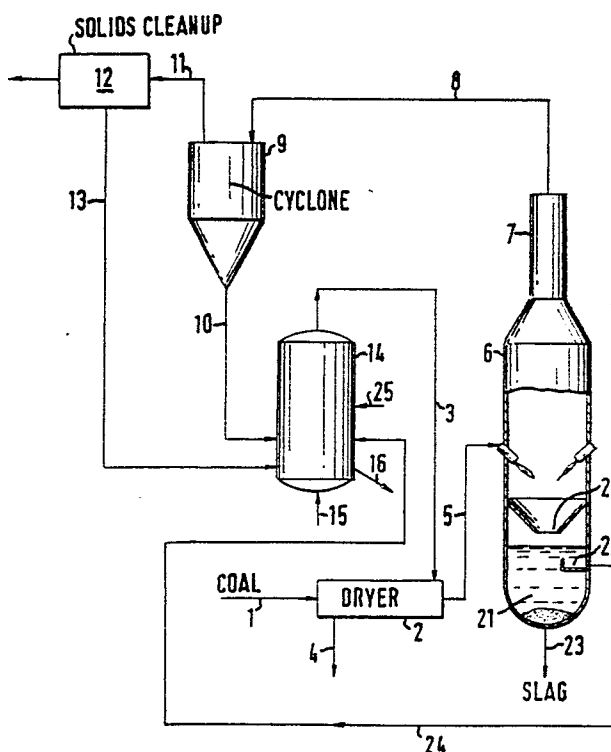
Publication number:

**0 227 197**  
**A3**

(12)

**EUROPEAN PATENT APPLICATION**
(21) Application number: **86202366.0**(51) Int. Cl.4: **C10J 3/54** , C10J 3/84 ,  
C10J 3/46(22) Date of filing: **23.12.86**(30) Priority: **27.12.85 US 813735**(43) Date of publication of application:  
**01.07.87 Bulletin 87/27**(84) Designated Contracting States:  
**DE GB IT NL**(88) Date of deferred publication of the search report:  
**27.01.88 Bulletin 88/04**(71) Applicant: **SHELL INTERNATIONALE  
RESEARCH MAATSCHAPPIJ B.V.**  
Carel van Bylandtlaan 30  
NL-2596 HR Den Haag(NL)(72) Inventor: **Hardesty, Donald Ernest**  
2210 Creek Road  
Brookshire Texas 77423(US)(74) Representative: **Aalbers, Onno et al**  
P.O. Box 302  
NL-2501 CH The Hague(NL)(54) **Oxidation of char and slag.**

(57) A process for the partial combustion or oxidation of coal is described, the process being characterized by recovery of energy value in gasification zone bottom impurity solids (e.g. char) and concomitant reduction of solids disposal requirements. In particular, the char is oxidized in a fluidized bed, preferably with other carbonaceous materials, and the heat recovered is used, e.g., to dry feed coal.





| DOCUMENTS CONSIDERED TO BE RELEVANT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                         |                                                |                                               |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|-----------------------------------------------|
| Category                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Citation of document with indication, where appropriate, of relevant passages                                           | Relevant to claim                              | CLASSIFICATION OF THE APPLICATION (Int. Cl.4) |
| Y                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | DE-A-2 729 764 (DAVY BAMAG)<br>* Pages 1,2,9-11 *                                                                       | 1                                              | C 10 J 3/54<br>C 10 J 3/84<br>C 10 J 3/46     |
| A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | ---                                                                                                                     | 2-5,8                                          |                                               |
| Y                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | US-A-4 508 542 (LANGHOFF)<br>* Column 3, line 56 - column 4, line 44; columns 9-10, claims *                            | 1                                              |                                               |
| A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | ---                                                                                                                     | 1                                              |                                               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | DE-A-2 918 859 (VEREINIGTE ELEKTRIZITÄTSWERKE WESTFALEN)<br>* Page 12, line 9 - page 14, line 5; page 16, lines 11-17 * |                                                |                                               |
| A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | ---                                                                                                                     | 5,6                                            | TECHNICAL FIELDS SEARCHED (Int. Cl.4)         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | US-A-2 633 416 (GORNOWSKI)<br>* Column 6, lines 1-21; column 7, line 57 - column 8, line 30 *                           |                                                |                                               |
| A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | ---                                                                                                                     | 6                                              | C 10 J                                        |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | GB-A-2 058 829 (MONSANTO)<br>* Page 2, line 34 - page 3, line 19 *                                                      |                                                |                                               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | -----                                                                                                                   |                                                |                                               |
| The present search report has been drawn up for all claims                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                         |                                                |                                               |
| Place of search<br>THE HAGUE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                         | Date of completion of the search<br>04-11-1987 | Examiner<br>WENDLING J.P.                     |
| <p><b>CATEGORY OF CITED DOCUMENTS</b></p> <p>X : particularly relevant if taken alone<br/>Y : particularly relevant if combined with another document of the same category<br/>A : technological background<br/>O : non-written disclosure<br/>P : intermediate document</p> <p>T : theory or principle underlying the invention<br/>E : earlier patent document, but published on, or after the filing date<br/>D : document cited in the application<br/>L : document cited for other reasons<br/>&amp; : member of the same patent family, corresponding document</p> |                                                                                                                         |                                                |                                               |

