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Declarations under Rule 4.17:

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))

[Continued on next page]

(54) Title: CIRCULATING FLUIDIZED BED COMBUSTOR AND A METHOD OF OPERATING A CIRCULATING FLUIDIZED BED COMBUSTOR

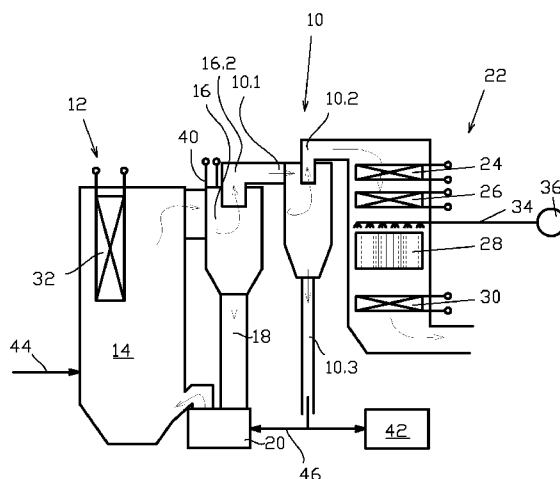


FIG. 2

(57) Abstract: A circulating fluidized bed combustor arrangement includes (a) a circulating fluidized bed reactor in which (i) a combustion chamber combusts a fuel material in a suspension of solid particles of a circulating fluidized bed, (ii) a first cyclone separator arrangement receives a mixture of gases and solid particles from the combustion chamber for separating a first fraction of the solid particles from the exhaust gases, and (iii) a solid particle return system connected to the first cyclone separator separated solid particles to the combustion chamber, (b) a heat transfer section including a water/steam heat exchanger section arranged after the first cyclone separator arrangement in the exhaust gas flow path, (c) a heat recovery device provided in connection with the combustion chamber, the first cyclone separator arrangement and the heat transfer section being arranged for recovering heat resulting from the combustion process in the combustion chamber, (d) a selective catalytic reduction system arranged in the exhaust gas flow path, after the heat transfer section, for removing NO_x from the exhaust gas, (e) a device for injecting NO_x reducing agent into the exhaust gases upstream of the selective catalytic reduction system, and (f) a second cyclone separator arrangement provided downstream of the first cyclone separator arrangement and upstream of the heat transfer section, in which a second fraction of the solid particles is separated from the exhaust gases.





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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

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ADD.

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

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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

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Y	US 2009/074629 A1 (MARYAMCHIK MIKHAIL [US]) 19 March 2009 (2009-03-19) paragraph [0029] - paragraph [0049]; claims 4,8; figure 1	1-23
Y	----- WO 99/14531 A1 (FOSTER WHEELER ENERGIA OY [FI]; KOSKINEN JARI [FI]; VILOKKI HARRI [FI]) 25 March 1999 (1999-03-25) page 10, line 22 - page 14, line 15; figure 1	1-23
A	----- US 4 597 774 A (GARCIA-MALLOL JUAN A [US] ET AL) 1 July 1986 (1986-07-01) abstract; figure 1 ----- -/--	1-23

Further documents are listed in the continuation of Box C.

See patent family annex.

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Information on patent family members

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