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(54) **Method for sulphur retention in a power plant**

(57) The invention relates to a method for sulphur retention in a power plant, in which, along with a fuel with a sulphur content and air, an additive is added to

the firebox of a thermal boiler, which binds the sulphur dioxide arising in connection with combustion. According to the invention, the said additive is wood ash.

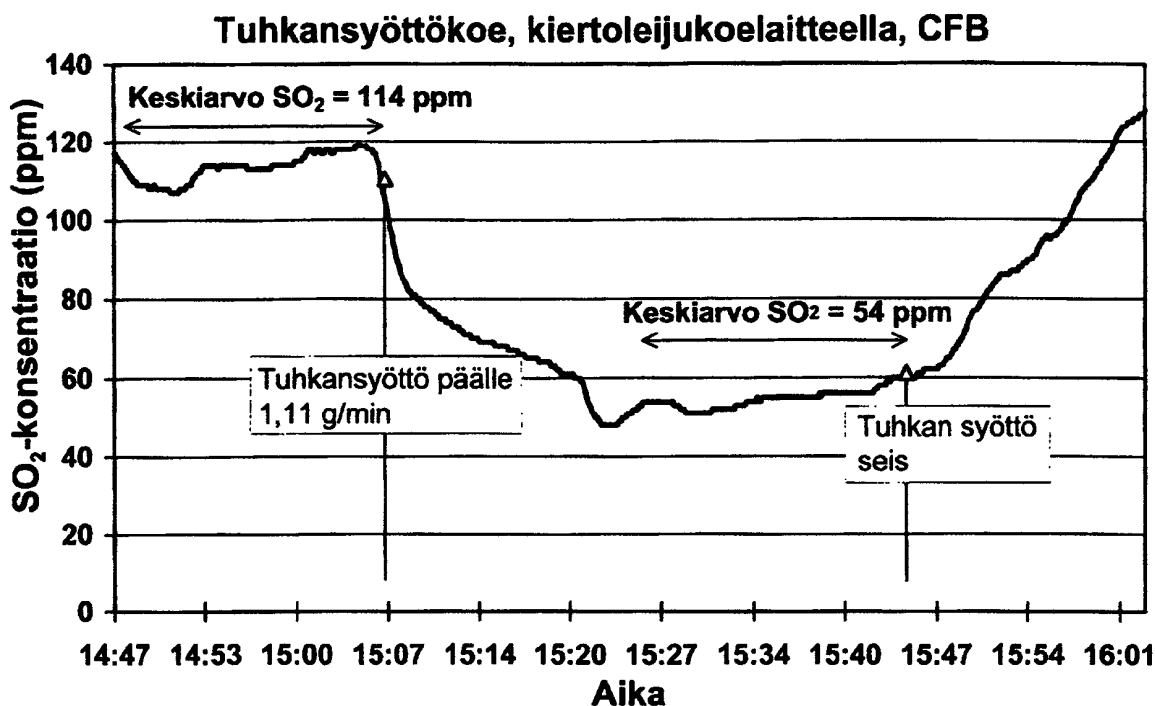


Fig. 1

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EUROPEAN SEARCH REPORT

Application Number
EP 02 39 6034

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.7)
Y	DE 44 20 845 C (MITTELDEUTSCHE BRAUNKOHLENGESSE) 7 December 1995 (1995-12-07) * the whole document *	1-6	C10L10/02
Y	DE 33 08 927 A (STEINMUELLER GMBH L & C) 13 September 1984 (1984-09-13) * claim 1 *	1-4,6	
Y	DEMIRBAS A: "Sulfur removal from coal by oxydesulfurization using alkaline solution from wood ash" ENERGY CONVERS. MANAGE.;ENERGY CONVERSION AND MANAGEMENT 1999 ELSEVIER SCIENCE LTD, EXETER, ENGL, vol. 40, no. 17, 1999, pages 1815-1824, XP004179441 * page 1815 - page 1816; table 1 *	1-6	
A	PATENT ABSTRACTS OF JAPAN & JP 62 022895 A (OHASHI N), 31 January 1987 (1987-01-31) * abstract *	1-6	TECHNICAL FIELDS SEARCHED (Int.Cl.7) C10L
A	US 5 571 490 A (BRONICKI LUCIEN Y ET AL) 5 November 1996 (1996-11-05) * column 2, line 52 - line 67 *	1-6	
A	DE 44 21 313 A (LAUSITZER BRAUNKOHL AG) 21 December 1995 (1995-12-21) * page 2, line 3 - line 52 *	1-6	
The present search report has been drawn up for all claims			
Place of search MUNICH		Date of completion of the search 22 October 2003	Examiner Bertrand, S
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
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22-10-2003

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
DE 4420845 C	07-12-1995	DE 4420845 C1	07-12-1995
DE 3308927 A	13-09-1984	DE 3308927 A1	13-09-1984
		AT 389652 B	10-01-1990
		AT 80384 A	15-06-1989
		CH 664504 A5	15-03-1988
JP 62022895 A	31-01-1987	NONE	
US 5571490 A	05-11-1996	US 6365038 B1	02-04-2002
		BR 9201358 A	01-12-1992
		CN 1067302 A	23-12-1992
		CS 9201100 A3	14-10-1992
		EE 9400187 A	15-02-1996
		IL 101531 A	31-10-1996
		IL 118903 A	11-01-2001
		RU 2122682 C1	27-11-1998
		RU 2085809 C1	27-07-1997
		TR 28185 A	08-02-1996
DE 4421313 A	21-12-1995	DE 4421313 A1	21-12-1995