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(54) Title: COMBUSTION OF WATER BORNE FUELS IN AN OXY-COMBUSTION GAS GENERATOR

SCHEMATIC OF DIRECT CYCLE WITH WATER BORNE FUEL INJECTION

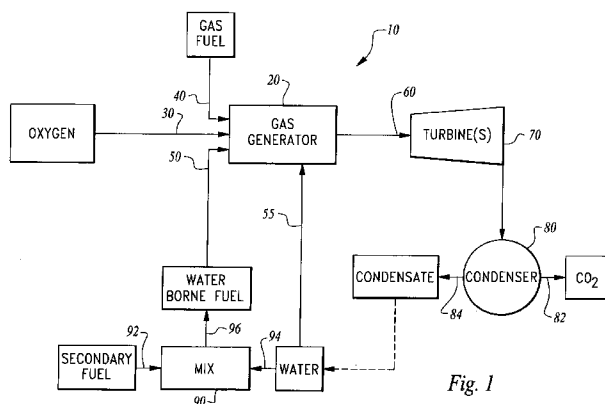


Fig. 1

(57) Abstract: A gas generator includes an oxygen inlet, a gaseous fuel inlet, a water, steam and/or CO2 inlet and a water borne fuel inlet. The water borne fuel is combusted within the gas generator along with the oxygen and the gaseous fuel to produce products of combustion including substantially only steam and carbon dioxide. The water borne fuel can be a water fuel solution, emulsion, mixture or other combination. The water borne fuel can either provide only a small portion of the total fuel into the gas generator or provide up to all of the fuel input into the gas generator. The combustion products are discharged from the gas generator and then power is extracted, such as through a turbine. The products of combustion can then be separated, such as within a condenser. Carbon dioxide is thus removed and can be readily sequestered away from the atmosphere to avoid emission of greenhouse gases.

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# INTERNATIONAL SEARCH REPORT

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<b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b>		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5,970,702 A (BEICHEL) 26 October 1999 (26.10.1999) entire document	1-24
Y	US 3,921,389 A (KAWAGUCHI) 25 November 1975 (25.11.1975) entire document	1-24
Y	US 6,206,684 B1 (MUEGGENBURG) 27 March 2001 (27.03.2001) entire document	3-6
Y	US 6,607,566 B1 (COLEMAN et al) 19 August 2003 (19.08.2003) entire document	8,24
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Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer: Blaine R. Copenheaver  PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774	