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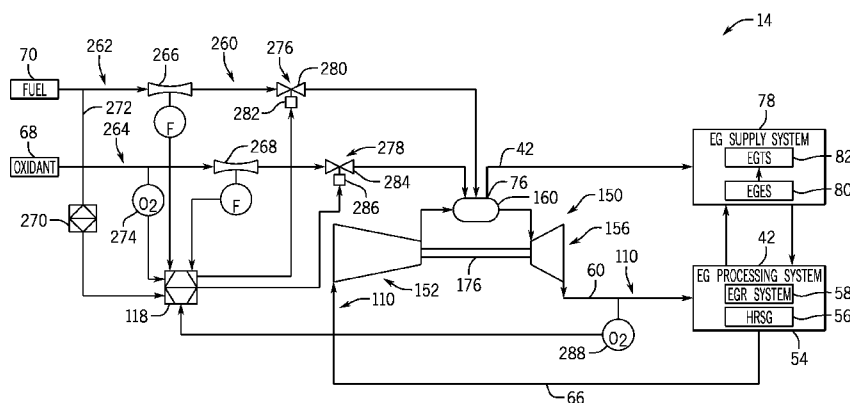


FIG. 5

(57) Abstract: A gas turbine system includes a controller (118) configured to receive fuel composition information related to a fuel (70) used for combustion in a turbine combustor (160); receive oxidant composition information related to an oxidant (68) used for combustion in the turbine combustor (160); receive oxidant flow information related to a flow of the oxidant to the turbine combustor (160); determine a stoichiometric fuel-to-oxidant ratio based at least on the fuel composition information and the oxidant composition information; and generate a control signal for input to a fuel flow control system configured to control a flow of the fuel to the turbine combustor (160) based on the oxidant flow information, a target equivalence ratio, and the stoichiometric fuel-to-oxidant ratio to enable combustion at the target equivalence ratio in the presence of an exhaust diluent within the turbine combustor.

INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
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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)
F23N F23C F02C

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

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2012/023960 A1 (MINTO KARL DEAN [US]) 2 February 2012 (2012-02-02)	23
Y	paragraphs [0014], [0026], [0028], [0029], [0031], [0032], [0034], [0047]; figures 1-3	1-22, 24-51
Y	----- US 2005/274116 A1 (THORNTON JIMMY [US] ET AL) 15 December 2005 (2005-12-15) paragraph [0016]	1-22, 24-51
A	----- GB 2 485 043 A (GEN ELECTRIC [US]) 2 May 2012 (2012-05-02) page 2, line 8 - line 19 page 3, line 11 - line 18 page 5, line 3 - line 25; figure 2 ----- -/-	1-51



Further documents are listed in the continuation of Box C.



See patent family annex.

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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2012/036863 A1 (KIRZHNER JOSEPH [US] ET AL) 16 February 2012 (2012-02-16) paragraphs [0007], [0023] - paragraph [0027] paragraph [0048] - paragraph [0057]; figures 1-5 -----	1-51

INTERNATIONAL SEARCH REPORT

Information on patent family members

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