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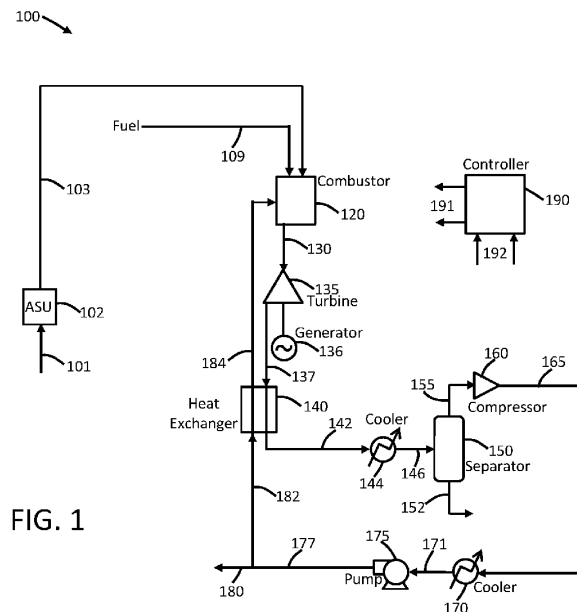


FIG. 1

(57) Abstract: The present disclosure provides for improving flame propagation in a combustor, particularly in a combustor for use in a power production system and method. At least one stream being passed into the combustor (e.g., a fuel, an oxidant, a diluent, a coolant, a working fluid, water, or steam) can be independently heated to a temperature that is about the autoignition temperature of the fuel or greater. Further, flame stabilization, including promoting ignition, can be improved as described herein through controlled addition of one or more NOx species into the combustor or combustion chamber.

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