

Patents by Inventor Christopher Frederik Thannhaeuser

Christopher Frederik Thannhaeuser has filed for patents to protect the following inventions. This listing includes patent applications that are pending as well as patents that have already been granted by the United States Patent and Trademark Office (USPTO).

Process for generating energy from organic materials and/or biomass

Patent number: 9096809

Abstract: The present invention relates to a process and a system for generating energy from biomass/organic wastes. A process for generating a product gas from biomass comprises of pyrolyzing the biomass in a pyrolyzer by contacting the biomass with hot heat carriers to obtain pyrolysis gas and char; passing the pyrolysis gas to a reformer containing a reactant to obtain a product gas; and firing a part of the product gas coming out of the reformer back to the heater tubes of the reformer. Firing a part of the product gas through the fired heater tubes of the reformer provides the heat for sustaining the reaction between the pyrolysis gas and the reactant to form the product gas.

Type: Grant

Filed: November 13, 2009

Date of Patent: August 4, 2015

Inventors: Prerak Goel, Christopher Frederik Thannhaeuser

PROCESS FOR GENERATING ENERGY FROM ORGANIC MATERIALS AND/OR BIOMASS

Publication number: 20120073198

Abstract: The present invention relates to a process and a system for generating energy from biomass/organic wastes. A process for generating a product gas from biomass comprises of pyrolyzing the biomass in a pyrolyser by contacting the biomass with hot heat carriers to obtain pyrolysis gas and char; passing the pyrolysis gas to a reformer containing a reactant to obtain a product gas; and firing a part of the product gas coming out of the reformer back to the heater tubes of the reformer. Firing a part of the product gas through the fired heater tubes of the reformer provides the heat for sustaining the reaction between the pyrolysis gas and the reactant to form the product gas.

Type: Application

Filed: November 13, 2009

Publication date: March 29, 2012

Inventors: Prerak Goel, Christopher Frederik Thannhaeuser