

Title (en)  
PRETREATING BIOMASS USING STEAM EXPLOSION BEFORE GASIFICATION

Title (de)  
VORBEHANDLUNG VON BIOMASSE MITTELS DAMPFEXPLOSION VOR DER VERGASUNG

Title (fr)  
PRÉTRAITEMENT DE BIOMASSE PAR VAPOCRAQUAGE AVANT GAZÉIFICATION

Publication  
**EP 2864037 A1 20150429 (EN)**

Application  
**EP 13806846 A 20130604**

Priority  

- US 201213531318 A 20120622
- US 201361823360 P 20130514
- US 2013044143 W 20130604

Abstract (en)  
[origin: WO2013191897A1] An integrated plant that includes a steam explosion process unit and biomass gasifier to generate syngas from biomass. A steam explosion process unit applies a combination of heat, pressure, and moisture to the biomass to make the biomass into a moist fine particle form. The steam explosion process unit applies steam with a high pressure to heat and pressurize any gases and fluids present inside the biomass to internally blow apart the bulk structure of the biomass via a rapid depressurization of the biomass with the increased moisture content. Those produced moist fine particles of biomass are subsequently fed to a feed section of the biomass gasifier, which reacts the biomass particles in a rapid biomass gasification reaction to produce syngas components.

IPC 8 full level  
**B01J 19/00** (2006.01); **C08J 3/12** (2006.01); **C10L 5/44** (2006.01); **D21B 1/36** (2006.01)

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Designated extension state (EPC)  
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