

Title (en)  
PLANT FOR TREATING WASTE PRODUCTS BY INJECTING HOT GAS IN THE LOAD TO BE TREATED AND RECYCLING THE RESULTING THERMOLYSIS GASES

Title (de)  
ANLAGE ZUR BEHANDLUNG VON ABFÄLLEN DURCH GASINJEKTION UND THERMOLYSEGAZRÜCKFÜHRUNG

Title (fr)  
INSTALLATION DE TRAITEMENT DE D CHETS PAR INJECTION DE GAZ CHAUDS DANS LA CHARGE TRAITER ET RECYCLAGE DES GAZ DE THERMOLYSE PRODUITS

Publication  
**EP 0879271 A1 19981125 (FR)**

Application  
**EP 97910483 A 19971015**

Priority  
• FR 9701838 W 19971015  
• FR 9612550 A 19961015  
• FR 9612551 A 19961015

Abstract (en)  
[origin: US6168688B1] A method and apparatus is provided for the thermolysis of solid waste within an enclosed thermolysis chamber in the absence of free oxygen which produces a thermolysis off-gas. The thermolysis off-gas is removed from the thermolysis chamber and injected into a cyclone where it is washed with water and cooled. The washed and cooled thermolysis off-gas is divided into two portions. One portion of the washed thermolysis off-gas is further cooled in a heat exchanger and then injected into a burner and combusted, while the remaining portion of the washed thermolysis off-gas is passed into indirect heat exchange with the hot off-gas resulting from the combustion of the other portion of the thermolysis off-gas in the burner and recycled back into the enclosed thermolysis chamber. This in-situ recycling of hot thermolysis off-gas helps prevent the creation of hot spots in the thermolysis chamber and the possibility of an explosive reaction between oxygen and hydrogen. The catalytic radiant panels and burners can be replaced with the injection of hot thermolysis gas back into the thermolysis area.

IPC 1-7  
**C10B 53/00**; **C10B 7/14**

IPC 8 full level  
**C10B 7/14** (2006.01); **C10B 53/00** (2006.01)

CPC (source: EP KR US)  
**C10B 7/14** (2013.01 - EP US); **C10B 49/04** (2013.01 - KR); **C10B 53/00** (2013.01 - EP KR US); **Y10S 423/18** (2013.01 - EP KR US)

Citation (search report)  
See references of WO 9816594A1

Designated contracting state (EPC)  
BE CH DE DK ES FR GB GR IT LI NL PT

DOCDB simple family (publication)  
**US 6168688 B1 20010102**; BR 9706834 A 19991228; BR 9706864 A 19991228; CA 2240530 A1 19980423; CA 2240532 A1 19980423; DE 879271 T1 19990610; DE 888416 T1 19990610; EP 0879271 A1 19981125; EP 0888416 A1 19990107; ES 2127170 T1 19990416; ES 2127171 T1 19990416; JP 2999558 B2 20000117; JP 3081850 U 20011122; JP H11504983 A 19990511; JP H11504984 A 19990511; KR 100281312 B1 20010302; KR 100282759 B1 20010502; KR 19990072139 A 19990927; KR 19990072140 A 19990927; WO 9816593 A1 19980423; WO 9816594 A1 19980423

DOCDB simple family (application)  
**US 9130298 A 19980615**; BR 9706834 A 19971015; BR 9706864 A 19971015; CA 2240530 A 19971015; CA 2240532 A 19971015; DE 97910483 T 19971015; DE 97910484 T 19971015; EP 97910483 A 19971015; EP 97910484 A 19971015; ES 97910483 T 19971015; ES 97910484 T 19971015; FR 9701838 W 19971015; FR 9701839 W 19971015; JP 2001002206 U 20010416; JP 51807298 A 19971015; JP 51807398 A 19971015; KR 19980704470 A 19980613; KR 19980704471 A 19980613