

Title (en)

A METHOD OF TREATING MATERIALS, AS WELL AS A PLANT AND A REACTOR FOR IMPLEMENTING THE METHOD

Title (de)

VERFAHREN ZUR STOFFAUFBEREITUNG, VORRICHTUNG UND REAKTOR ZUR DURCHFÜHRUNG DES VERFAHRENS

Title (fr)

PROCEDE DE TRAITEMENT DE MATERIAU, INSTALLATION ET REACTEUR DE MISE EN OEUVRE DU PROCEDE

Publication

**EP 1379812 A1 20040114 (EN)**

Application

**EP 02714395 A 20020327**

Priority

- IB 0201075 W 20020327
- IT BO20010207 A 20010406

Abstract (en)

[origin: WO02081970A1] An improved method of treating materials comprises the steps of introducing material to be treated into a reactor and admitting thereto an oxidizing agent comprising or constituted by molecular oxygen or ozone, and regulating its flow and/or direction selectively in order to achieve a temperature and a pressure such as to bring about an oxidation reaction, complete molecular dissociation of the material, and consequent sublimation. Any carbon monoxide present in the resulting gases and vapours may be removed by selective adsorption in a washing tower, by catalytic oxidation on metal oxides, or by wet oxidation with hydrogen peroxide. The pressure inside the reactor is modulated between a maximum value and a minimum value in accordance with predetermined rules of variation by valve means associated with the outlet opening of the reactor. The inlet opening of the reactor is provided with sealing means including at least one sealing ring mounted resiliently on flange means. The walls of the reactor are lined with a refractory ceramic material which includes additives so as to have improved resilience and mechanical strength and to be effective in the dissipation to the exterior of the heat which is produced.

IPC 1-7

**F23G 5/50**; B01J 19/00; B01J 3/04

IPC 8 full level

**B01J 3/04** (2006.01); **F23C 6/04** (2006.01); **F23C 7/00** (2006.01); **F23G 5/50** (2006.01); **F23J 15/02** (2006.01); **F23L 7/00** (2006.01); **F23L 11/00** (2006.01); **F23M 5/00** (2006.01)

CPC (source: EP)

**B01J 3/042** (2013.01); **F23C 6/045** (2013.01); **F23C 7/008** (2013.01); **F23G 5/50** (2013.01); **F23J 15/02** (2013.01); **F23L 7/007** (2013.01); **F23L 11/00** (2013.01); **F23M 5/00** (2013.01); B01J 2219/00155 (2013.01); B01J 2219/00162 (2013.01); B01J 2219/00164 (2013.01); B01J 2219/0218 (2013.01); F23J 2215/40 (2013.01); F23J 2219/10 (2013.01); F23J 2219/20 (2013.01); F23J 2219/40 (2013.01); F23M 2900/05004 (2013.01); Y02E 20/34 (2013.01)

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)

**WO 02081970 A1 20021017**; **WO 02081970 A9 20040212**; **WO 02081970 B1 20031224**; BR 0208898 A 20040629; EP 1379812 A1 20040114; IT BO20010207 A0 20010406; IT BO20010207 A1 20021006

DOCDB simple family (application)

**IB 0201075 W 20020327**; BR 0208898 A 20020327; EP 02714395 A 20020327; IT BO20010207 A 20010406