

Title (en)  
PULSE COMBUSTION DRYER

Title (de)  
PULSIERENDER VERBRENNUNGSTROCKNER

Title (fr)  
SÉCHOIR À COMBUSTION PULSÉE

Publication  
**EP 4220055 A1 20230802 (EN)**

Application  
**EP 22382065 A 20220127**

Priority  
EP 22382065 A 20220127

Abstract (en)  
A pulse combustion dryer comprising a pulse combustion burner having a pulse combustion chamber, a drying chamber and a tailpipe connected to the pulse combustion chamber and to the drying chamber. The pulse combustion dryer also comprises hydrogen and oxygen inlets for feeding hydrogen and oxygen into the pulse combustion chamber, respectively, a product feeding line for feeding the product to be dried into the drying chamber, a particle separation system to separate the dried product from water steam and a steam outlet line to evacuate the water steam. The steam outlet line is connected to a steam supply line so at least part of the water steam is directed towards the pulse combustion chamber for cooling the hot combustion gas passing to the dryer chamber. The oxygen inlet is arranged in the steam supply line to mix oxygen and water steam that passes towards the pulse combustion burner.

IPC 8 full level  
**F26B 23/02** (2006.01)

CPC (source: EP)  
**F26B 23/026** (2013.01)

Citation (applicant)  
• EP 1092060 B1 20030820 - PAPER SCIENCE & TECH INST INC [US]  
• US 2017314778 A1 20171102 - BÜCHNER HORST [DE]  
• US 2017307211 A1 20171026 - BÜCHNER HORST [DE]  
• US 2007251120 A1 20071101 - CONNELL LARRY V [US]  
• EP 0236152 A1 19870909 - AEROSOL INVENTIONS DEV [CH]

Citation (search report)  
• [A] US 2007251120 A1 20071101 - CONNELL LARRY V [US]  
• [A] EP 1092060 B1 20030820 - PAPER SCIENCE & TECH INST INC [US]  
• [A] US 2017307211 A1 20171026 - BÜCHNER HORST [DE]  
• [A] US 2017314778 A1 20171102 - BÜCHNER HORST [DE]

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)  
BA ME

Designated validation state (EPC)  
KH MA MD TN

DOCDB simple family (publication)  
**EP 4220055 A1 20230802**

DOCDB simple family (application)  
**EP 22382065 A 20220127**