

Title (en)  
FIBER PRE-OXIDIZATION DEVICE

Title (de)  
FASERVOROXIDATIONSVORRICHTUNG

Title (fr)  
DISPOSITIF DE PRÉ-OXYDATION DE FIBRES

Publication  
**EP 3518621 A1 20190731 (EN)**

Application  
**EP 18168096 A 20180418**

Priority  
TW 107103129 A 20180129

Abstract (en)  
A fiber pre-oxidization device of the present disclosure basically has a transmitting unit and a microwave processing unit. The microwave processing unit is installed with at least one magnetron and a gas supplying unit, wherein the magnetron is disposed at an oven body of the transmitting unit, and the gas supplying unit is connected to the oven body. By focusing the microwave, an ultra-fast pre-oxidization process is applied on a fiber yarn bunch which continuously passes the oven body, and thus the fiber yarn bunch is processed to form an oxidation fiber yarn bunch. Thus, not only an oxidation time of an oxidation fiber can be reduced, but also the shell-core structure of the oxidation fiber can be reduced. Even, the oxidation fiber has no obvious shell-core. Accordingly, relatively positive and reliable means for increasing the performance of carbon fiber are provided.

IPC 8 full level  
**H05B 6/78** (2006.01); **D01F 9/32** (2006.01); **H05B 6/64** (2006.01); **H05B 6/80** (2006.01)

CPC (source: CN EP US)  
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Citation (search report)

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- [X] US 2012137446 A1 20120607 - WOHLMANN BERND [DE], et al
- [I] CN 105696113 A 20160622 - JIANGXI DAYOU SCIENT AND TECHNICAL CO LTD
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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

DOCDB simple family (publication)  
**EP 3518621 A1 20190731**; CN 110093688 A 20190806; JP 2019131939 A 20190808; JP 6667567 B2 20200318; TW 201932653 A 20190816; TW I665349 B 20190711; US 2019233979 A1 20190801

DOCDB simple family (application)  
**EP 18168096 A 20180418**; CN 201810105301 A 20180202; JP 2018072898 A 20180405; TW 107103129 A 20180129; US 201815951353 A 20180412