

Title (en)

METHOD AND APPARATUS FOR RECOVERING CARBON AND/OR GLASS FIBERS FROM A COMPOSITE MATERIAL

Title (de)

VERFAHREN UND VORRICHTUNG ZUR RÜCKGEWINNUNG VON GLASFASERN UND/ODER KOHLENSTOFF AUS KOMPOSITMATERIALIEN

Title (fr)

PROCEDE ET APPAREIL DESTINES A RECUPERER DES FIBRES DE CARBONE ET/OU DES FIBRES DE VERRE D'UN MATERIAU COMPOSITE

Publication

EP 1526956 A1 20050504 (EN)

Application

EP 03723071 A 20030417

Priority

- IT 0300247 W 20030417
- IT RM20020217 A 20020419

Abstract (en)

[origin: WO03089212A1] The present invention relates to a method aimed at recovering carbon and/or glass fibers, by means of pyrolysis and subsequent upgrading treatment, from scraps and processing waste of composite material of fibers with FRP (Fiber Reinforced Plastics) plastic materials coming from different stages of industrial processing and from manufactures at end of life. The method provides the pyrolysis of scraps, waste and composite materials of FRP to eliminate the plastic matrix and a subsequent hot treatment, in presence of upgrading gas, of the recovered fibers for removing carbon residues. The fibers recovered from the treated manufactures can be reutilized in the manufacturing of products with mechanical features very similar to the ones of the rolled sections produced with virgin fibers. The cost of CF (carbon fibers), recovered with the proposed method, has been calculated to be equal to 20-30% of the one of the new carbon fibers.

IPC 1-7

B29B 17/02; **C08J 11/12**; **C10B 53/00**

IPC 8 full level

B29B 17/02 (2006.01); **C03C 25/00** (2006.01); **C03C 25/002** (2018.01); **C10B 47/30** (2006.01); **C10B 53/07** (2006.01); **C10G 1/10** (2006.01)

CPC (source: EP)

B29B 17/02 (2013.01); **C03C 25/002** (2013.01); **C10B 47/30** (2013.01); **C10B 53/07** (2013.01); **C10G 1/10** (2013.01); **B29B 17/0042** (2013.01); **B29B 2017/0496** (2013.01); **B29C 70/48** (2013.01); **B29K 2105/06** (2013.01); **B29K 2707/04** (2013.01); **B29K 2709/08** (2013.01); **Y02P 20/143** (2015.11); **Y02W 30/62** (2015.05)

Cited by

CN108997609A; IT202100027386A1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

DOCDB simple family (publication)

WO 03089212 A1 20031030; AU 2003236029 A1 20031103; EP 1526956 A1 20050504; IT RM20020217 A0 20020419; IT RM20020217 A1 20031020

DOCDB simple family (application)

IT 0300247 W 20030417; AU 2003236029 A 20030417; EP 03723071 A 20030417; IT RM20020217 A 20020419