

Title (en)
METHOD AND APPARATUS FOR GLOW DISCHARGE PLASMA TREATMENT OF POLYMER MATERIALS AT ATMOSPHERIC PRESSURE

Title (de)
VERFAHREN UND VORRICHTUNG FÜR PLASMABEHANDLUNG MITTELS EINER GLIMMENTLADUNG BEI ATMOSPÄRENDRUCK

Title (fr)
PROCEDE ET APPAREIL POUR LE TRAITEMENT AU PLASMA A DECHARGE LUMINESCENTE DE MATERIAUX POLYMERES A LA
PRESSION ATMOSPHERIQUE

Publication
EP 0700577 A1 19960313 (EN)

Application
EP 94918192 A 19940526

Priority
• US 9406151 W 19940526
• US 6850893 A 19930528
• US 6873993 A 19930528
• US 14534993 A 19931029
• US 14578693 A 19931029

Abstract (en)
[origin: WO9428568A1] A steady-state glow discharge plasma is generated at one atmosphere of pressure within the volume (S) between a pair of insulated metal plate electrodes (14) spaced up to 5 cm apart and rf energized with an rms potential of 1-5kV at 1-100kHz (20). Space between the electrodes is occupied by air, nitrous oxide, and a noble gas such as helium, neon, argon, etc., or mixtures thereof. The electrodes are charged by an impedance matching network (31) adjusted to produce the most stable, uniform glow discharge. Also, a method for treating a meltblown polymer web, using the aforementioned plasma device, is included.

IPC 1-7
H01J 7/24; H05B 31/26; D04H 1/58

IPC 8 full level
H05H 1/46 (2006.01); **B29C 59/14** (2006.01); **B64C 23/00** (2006.01); **D04H 1/56** (2006.01); **D06M 10/00** (2006.01); **H01J 37/32** (2006.01); **H05B 7/16** (2006.01)

CPC (source: EP KR)
B29C 59/14 (2013.01 - EP); **B64C 23/005** (2013.01 - EP); **D04H 1/56** (2013.01 - EP); **H01J 7/24** (2013.01 - KR); **H01J 37/32082** (2013.01 - EP); **H01J 37/32174** (2013.01 - EP); **H01J 37/3277** (2013.01 - EP); **H05B 7/16** (2013.01 - EP); **B29C 2059/145** (2013.01 - EP); **B29K 2023/12** (2013.01 - EP); **H01J 2237/336** (2013.01 - EP)

Designated contracting state (EPC)
AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)
WO 9428568 A1 19941208; AU 679237 B2 19970626; AU 6962394 A 19941220; CA 2163967 A1 19941208; CA 2163967 C 20081104; EP 0700577 A1 19960313; EP 0700577 A4 19961227; JP H08511898 A 19961210; KR 960702844 A 19960523

DOCDB simple family (application)
US 9406151 W 19940526; AU 6962394 A 19940526; CA 2163967 A 19940526; EP 94918192 A 19940526; JP 50105595 A 19940526; KR 19950705310 A 19951127