

Title (en)

Apparatus for the generation of positive and/or negative ions.

Title (de)

Vorrichtung zur Erzeugung positiver und/oder negativer Ionen.

Title (fr)

Appareil de production d'ions positifs et/ou négatifs.

Publication

EP 0158202 A1 19851016 (DE)

Application

EP 85103468 A 19850323

Priority

DE 3412563 A 19840404

Abstract (en)

[origin: US4638398A] A pulse generator operating at a frequency preferably somewhat higher than 100 Hz charges a capacitor through a diode and the trailing edge of the pulse switches-in a discharge circuit to discharge the capacitor through the low-voltage winding of a pulse transformer, the high-voltage winding of which charges, through another diode, the high-voltage insulated conductor of an ionizer that cooperates with a point-bearing electrode that is grounded. The high-voltage electrode discharges through a resistor between pulses and the diode assures that ions of the same polarity will be produced. The ionizer is suited for being located inside a spray gun of an electrostatic coating apparatus for charging the coating material particles with the ions without producing an electric field between the spray gun and the workpiece that would interfere with the coating of hollow places of the workpiece because of the so-called cage effect.

Abstract (de)

Die Erfindung betrifft eine Vorrichtung zur Erzeugung positiver oder negativer Ionen mittels eines Hochspannungsionisators (1). Sein unter Hochspannung stehender, gegenüber der Umgebung isolierter Leiter (2) ist über eine Diode (5) angeschlossen, der mit vorgegebener Polarität aufladbar ist. Außerdem ist der unter Hochspannung stehende Leiter über einen Entladewiderstand (4) geerdet. Dadurch erzeugt der Ionisator (1) mit vorgegebener Frequenz Ionen, die praktisch ausschließlich die gleiche Polarität aufweisen.

IPC 1-7

H01T 23/00

IPC 8 full level

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CPC (source: EP US)

H01T 23/00 (2013.01 - EP US); **Y10S 323/903** (2013.01 - EP US)

Citation (search report)

- [A] GB 2102214 A 19830126 - SIDHA TECHNOLOGY LTD [GB]
- [A] US 4232355 A 19801104 - FINGER RICHARD H, et al
- [A] US 4333123 A 19820601 - MOULDEN R EDWARD

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Designated contracting state (EPC)

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