

Title (en)

METHOD AND DEVICES TO TRANSFER ELECTRICAL CHARGES OF OPPOSED SIGNS INTO A SPACE-FIELD, AND ITS APPLICATION TO STATIC ELIMINATORS

Publication

EP 0051006 B1 19861001 (FR)

Application

EP 81401536 A 19811002

Priority

FR 8021977 A 19801014

Abstract (en)

[origin: US4417293A] In a supersonic nozzle, a current of compressed air charged with humidity is expanded to produce an aerosol of ice micro-particles. A corona discharge is maintained at the neck of the nozzle at the tip of a tapered electrode by a high alternating current voltage supply connected between the electrode and the nozzle body. The alternately positive and negative ions produced by the discharge are trapped by the ice micro-particles and ejected by an orifice at the front of the nozzle out of the enclosure in the direction of a space zone the concentration in charges of different signs of which it is desired to raise. The electric supply comprises a capacitor in the circuit between the electrode and a conductive guard ring which is embedded in the body of the nozzle behind the insulating surface thereof. Thus fluxes of positive and negative particles which are overall balanced are obtained at the exit of the nozzle. The apparatus is well adapted to the elimination of static charges of electrified bodies.

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CPC (source: EP US)

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Citation (examination)

- FR 2419647 A1 19791005 - ONERA (OFF NAT AEROSPATIALE) [FR]
- DE 3121054 A1 19820225 - ONERA (OFF NAT AEROSPATIALE) [FR]

Cited by

FR2690302A1; GB2176650A; GB2176650B; EP1750884A4; WO2005102582A1; WO9321747A1

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