

Title (en)

METHOD FOR OPERATING AN ELECTROSTATIC SOOT SENSOR

Title (de)

VERFAHREN ZUM BETREIBEN EINES ELEKTROSTATISCHEN RUßSENSORS

Title (fr)

PROCÉDÉ POUR FAIRE FONCTIONNER UN CAPTEUR DE SUIE ÉLECTROSTATIQUE

Publication

EP 3391023 A1 20181024 (DE)

Application

EP 16798145 A 20161117

Priority

- DE 102015225739 A 20151217
- EP 2016077946 W 20161117

Abstract (en)

[origin: WO2017102232A1] The invention relate to a method for operating an electrostatic soot sensor by means of a voltage supply, wherein the electrostatic soot sensor has a first electrode, a second electrode, and a guard electrode, wherein the first electrode and the second electrode are electrically insulated from each other by an insulating body and the guard electrode is arranged between the first electrode and the second electrode, wherein the guard electrode is also electrically insulated from the first electrode and the second electrode by the insulating body, wherein a first electric potential is applied to the first electrode by means of the voltage supply and wherein a second electric potential is applied to the second electrode by means of the voltage supply such that a voltage arises between the first electrode and the second electrode and wherein a guard potential is applied to the guard electrode by means of the voltage supply, wherein the measurement current flowing between the first electrode and the second electrode is sensed by means of a current-measuring element. In order to specify a method for operating an electrostatic soot sensor by means of which the measurement readiness of the electrostatic soot sensor can be determined reliably and accurately and by means of which measurement errors caused by leakage currents can be compensated, the first electrode is disconnected from the first electric potential and the leakage current flowing between the guard electrode and the second electrode is sensed by means of the current-measuring element in order to sense leakage currents.

IPC 8 full level

G01N 15/06 (2006.01)

CPC (source: EP US)

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Citation (search report)

See references of WO 2017102232A1

Designated contracting state (EPC)

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