

Title (en)

Device for extracting particles from exhaled breath

Title (de)

Extraktionsvorrichtung von Partikeln aus verbrauchter Atemluft

Title (fr)

Dispositif d'extraction de particules de l'haleine expirée

Publication

EP 2108456 B1 20130814 (FR)

Application

EP 09005243 A 20090409

Priority

FR 0802013 A 20080411

Abstract (en)

[origin: EP2108456A1] The device has a cone shaped droplet recuperator (7) including a netted lateral wall (2) convergent towards an outflow port (9) to permit droplets attracted towards the wall to be poured towards the port. A discharge electrode (1) e.g. polarized wire, is mounted inside the recuperator. The wall defines a counter electrode on the electrode (1) to attract the droplets collecting submicron particles e.g. pathogenics, carried by exhaled breath towards the wall, and has conductive strips (34) made of metal. The recuperator and a cooling system (16) define an electrostatic precipitator. The wall has a grooved inner side (4) that is made hydrophilic by surface treatment i.e. silicon dioxide deposition. An independent claim is also included for an extracted particle analyzing system comprising an extracted particle collecting device.

IPC 8 full level

B03C 3/45 (2006.01); **B03C 3/16** (2006.01); **B03C 3/32** (2006.01); **B03C 3/49** (2006.01)

CPC (source: EP US)

B03C 3/16 (2013.01 - EP US); **B03C 3/32** (2013.01 - EP US); **B03C 3/455** (2013.01 - EP US); **B03C 3/49** (2013.01 - EP US)

Citation (examination)

US 2005137491 A1 20050623 - PAZ FREDERICK M [US], et al

Cited by

CN102962137A; US10502665B2; US9610587B2; US9617582B2; US10393753B2

Designated contracting state (EPC)

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DOCDB simple family (publication)

EP 2108456 A1 20091014; **EP 2108456 B1 20130814**; FR 2929860 A1 20091016; FR 2929860 B1 20101217; JP 2009258105 A 20091105; JP 4875722 B2 20120215; US 2010000540 A1 20100107; US 8316852 B2 20121127

DOCDB simple family (application)

EP 09005243 A 20090409; FR 0802013 A 20080411; JP 2009096410 A 20090410; US 42194009 A 20090410