

Title (en)

Process and device for purification of noxious exhaust gases by chemical conversion

Title (de)

Verfahren und Einrichtung zur Reinigung von schadstoffhaltigen Abgasen durch chemische Umsetzung

Title (fr)

Procédé et dispositif pour la purification des effluents gazeux nocifs par conversion chimique

Publication

**EP 0735320 B1 20001011 (DE)**

Application

**EP 96102121 A 19960214**

Priority

DE 19511643 A 19950330

Abstract (en)

[origin: EP0735320A2] The method cleans waste gases with toxic substances esp. from CVD and plasma processes. The cleaning is carried out in a combustion chamber with a burner to generate a combustion gas flame. the flame serves to heat and/or chemically convert the toxic substance. The surfaces of the chamber and/or surfaces brought into the chamber are covered with a porous layer of silicon. The waste gas with the toxic substance is heated in the chamber and is guided along the surfaces in question. The porous silicon dioxide layer is cut away by thermal oxidation of silane or another silicon gas following purification phases in the chamber. The secondary, fluid toxic substance e.g. silicon fluoride, formed from the chemical reaction of the fluoride toxic substance with the hot silicon dioxide is hydrolysed using absorption and may also be neutralised.

IPC 1-7

**F23G 7/06**; **F23J 15/04**; **F23M 9/06**; **F23M 5/00**

IPC 8 full level

**F23G 7/06** (2006.01); **F23J 15/04** (2006.01); **F23M 5/00** (2006.01); **F23M 9/06** (2006.01)

CPC (source: EP)

**F23G 7/065** (2013.01); **F23J 15/04** (2013.01); **F23M 5/00** (2013.01); **F23M 9/06** (2013.01); **F23G 2209/142** (2013.01); **F23J 2215/30** (2013.01); **F23J 2219/40** (2013.01)

Cited by

GB2308991A; DE102006052586A1; DE102006052586B4

Designated contracting state (EPC)

BE CH DE ES FR GB IE IT LI NL

DOCDB simple family (publication)

**EP 0735320 A2 19961002**; **EP 0735320 A3 19970326**; **EP 0735320 B1 20001011**; DE 19511643 A1 19961002; DE 59605974 D1 20001116

DOCDB simple family (application)

**EP 96102121 A 19960214**; DE 19511643 A 19950330; DE 59605974 T 19960214