

Title (en)

PURIFICATION STRUCTURE INCLUDING A POLARISED ELECTROCHEMICAL CATALYSIS SYSTEM

Title (de)

REINIGUNGSSTRUKTUR MIT EINEM POLARISIERTEN ELEKTROCHEMISCHEN KATALYSESYSTEM

Title (fr)

STRUCTURE DE PURIFICATION INCORPORANT UN SYSTEME DE CATALYSE ELECTROCHIMIQUE POLARISE

Publication

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Application

EP 09804298 A 20091216

Priority

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- FR 0858729 A 20081217

Abstract (en)

[origin: WO2010076508A1] The invention relates to a catalytic filter for purifying a polluted gas, including a honeycomb structure, in which at least one porous electronically conductive material forms the walls of said structure, and an electrochemical system for treating said gas, including a layer of an ionically conductive and electronically insulating material D, the ionic conductor D including or being made of a zirconium oxide partially substituted by a trivalent M⁺ or divalent cation M'²⁺, a catalyst A suitable for converting NO_x to NO₂ and a catalyst B suitable for reducing NO_x to N₂ and a means for applying a voltage or a current between an electrode W connected to the catalyst A and an auxiliary electrode CE connected to the catalyst B, such that said layer of zirconium oxide can be retained in a reduced state by applying said voltage or said current.

IPC 8 full level

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