

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

**EP 2379204 A1 20111026 (FR)**

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<sup>+</sup> or divalent cation M'<sup>2+</sup>, a catalyst A suitable for converting NO<sub>x</sub> to NO<sub>2</sub> and a catalyst B suitable for reducing NO<sub>x</sub> to N<sub>2</sub> 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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