

Title (en)
ELECTROCHEMICAL CATALYSIS SYSTEM

Title (de)
ELEKTROCHEMISCHES KATALYSESYSTEM

Title (fr)
SYSTEME DE CATALYSE ELECTROCHIMIQUE

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Application
EP 11736124 A 20110616

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Abstract (en)
[origin: WO2011157963A2] The present invention relates to an electrocatalytic system for concomitant treatment of oxidising polluting species such as NO_x and reducing polluting species such as hydrocarbons (HC) or CO contained in a gas to be purified, in particular exhaust gas from a combustion engine, said system including: a catalyst A for reducing NO_x polluting species; a catalyst B for oxidising hydrocarbon (HC) and CO polluting species; and a compound E that is an electronic and ionic conductor by means of the oxide ions, said catalysts A and B being in contact with the compound E, said compound E consisting of an oxide that is an ionic and electronic conductor and has the following molar formulation: Ce_{1-y-z}O_{2-x}MyN_z, where Ce is Cerium; M is an element selected from among: Gd, Y, Se, Sm, La, Pr, Nd, Er, Tb; y is between 0.01 and 0.4; N is an element, having a plurality of valence degrees, selected from among: Ti, V, Cr, Mn, Fe, Co, Ni, Cu; z is lower than 0.4 and x is greater than 0.05.

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