

Title (en)

COMBINED PLASMA REACTOR CATALYST SYSTEMS FOR EFFECTIVE EMISSION CONTROL OVER A RANGE OF OPERATING CONDITIONS

Title (de)

KOMBINIERTE PLASMAREAKTOR-KATALYSATORSYSTEME ZUR EFFIZIENTEN ABGASKONTROLLE BEI VERSCHIEDENEN ARBEITSBEDINGUNGEN

Title (fr)

SYSTEMES CATALYSEURS COMBINES A REACTEUR A PLASMA DESTINES A LA REDUCTION EFFICACE DES EMISSIONS DANS DE MULTIPLES CONDITIONS DE FONCTIONNEMENT

Publication

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Application

EP 00906989 A 20000121

Priority

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Abstract (en)

[origin: WO0043469A2] The invention is directed to an apparatus and a method for removing at least a portion of at least one pollutant in an exhaust gas stream containing exhaust gas formed from the combustion of fuel in a lean burn engine. The apparatus has at least one device for removing at least a portion of at least one of oxides of nitrogen, hydrocarbons, carbon monoxide, and particulates in the exhaust gas, the device having an inlet and an outlet, wherein the device is selected from the group consisting of selective catalytic reduction catalysts, particulate traps, selective catalytic reduction catalyst coated particulate traps, oxide of nitrogen storage and reduction catalysts, oxidation catalysts, and three-way catalysts, and is positioned, such that at least a portion of the exhaust gas stream from the lean burn engine passes through the device; and at least one device for producing a non-thermal plasma in at least a portion of the exhaust gas stream. At least a portion of the exhaust gas stream is exposed to the non-thermal plasma, and at least a portion of that portion of the exhaust gas stream exposed to the non-thermal plasma is introduced into the exhaust gas stream at a point upstream of or at the at least one device for removing at least one of oxides of nitrogen, hydrocarbons, carbon monoxide, and particulates.

[origin: WO0043469A2] An apparatus and method for removing pollutant from exhaust gas of a lean burn engine (11). The apparatus has at least one device (13) for removing oxides of nitrogen, hydrocarbons, carbon monoxide, and particulates in the exhaust gas. The device (13) is selected from the group consisting of selective catalytic reduction catalysts, particulate traps, and three-way catalysts, and is positioned, such that at least a portion of the exhaust gas stream (18) from the lean burn engine (11) passes through the device (13); and at least one a device (14, 30, 40, 50, 60, 80) for producing a non-thermal plasma in at least a portion of the exhaust gas stream (18). A portion of the exhaust gas stream (18) is exposed to the non-thermal plasma (14, 30, 40, 50, 60, 80), and introduced into the exhaust gas stream (18) at a point upstream of the catalytic converter (13) for removing at least one of oxides of nitrogen, hydrocarbons, carbon monoxide, and particulates.

IPC 1-7

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IPC 8 full level

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Citation (search report)

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- See references of WO 0043469A2

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