Title (en)
METHOD AND DEVICE FOR THE DECOMPOSITION OF NITROGEN OXIDES IN AN EXHAUST GAS FLOW

Title (de)
VERFAHREN UND VORRICHTUNG ZUM ABBAU VON STICKSTOFFOXIDEN IN EINEM ABGASSTROM

Title (fr)
PROCEDE ET DISPOSITIF POUR DECOMPOSER DES OXYDES D'AZOTE DANS UN FLUX DE GAZ D'ECHAPPEMENT

Publication
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Application
EP 06741033 A 20060608

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Abstract (en)
[origin: WO2006130895A1] The invention relates to a method for operation of a filter arrangement for the decomposition of nitrogen oxides in an exhaust gas flow, whereby the exhaust gas flow is led through channels (16) in a ceramic honeycomb (1) which are open to both sides and run in the longitudinal direction of the ceramic honeycomb (1) and a voltage is applied to the honeycomb (1) to generate an electric field in the channels (16) of the honeycomb (1) by means of electrodes (9) running parallel to the channels (16). According to the invention, the voltage applied to the electrodes (9) is voltage pulses for the generation of an electric field within the channels (16) with field strength amplitudes U of at least 5 kV/cm and the product of the field strength amplitude and the pulse duration B in seconds (s) is between 0.01 and 0.1 V. s/cm whereby the wall material of the ceramic honeycomb (1) has an electron affinity of below 2 electron volts such that the plasma formed is essentially made up of Richardson electrons, secondary electrons and photoelectrons.

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