

## Treatment of Diesel Engine Exhaust gas with Dielectric Barrier Discharge

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The regulations of diesel exhaust emissions become stricter, so intensive. The present work continues our investigations on engine emissions treatment with discharges assistance. We designed variations of greed shaped DBD plasma sources in order to reduce the  $\text{NO}_x$  content of a diesel engine exhaust, testing it on the different engine operation modes. Discharge frequency has a crucial impact on equipment performance and gas treatment. The plasma source supply frequency was varying from 400Hz to 28.5kHz. A95% decreasing of NO and 70% reduction of  $\text{NO}_x$  was obtained. It was found that the discharge application increase defficiency of carbon particles removing 1.4times.