

## **CERAMICS-BASED CATALYST CHARACTERIZATION**

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### **Abstract**

As the air pollution generated from mobile sources is a problem of a general interest, Toadies' restrictions on pollutant emissions require the use of catalytic convertor as a standard on car engines both SI and CI. Due to incomplete combustion in the engines, there are a number of products CO, HC, NO<sub>x</sub>, etc. that have a negative impact on air quality. The scope of this paper is to characterize the performance of catalysts with different basis (aluminum oxide, ceramics and zeolite) and different shapes while infused with a fixed percentage of Palladium at 0.2% on the reduction of these harmful gases. To this purpose a two cylindrical Benzene engine was utilized and a gas sensor were attached to the outlet of the exhaust system before and after the catalytic convertor. The model has also given access to the amount of pressure drop caused by the catalyst parts which are compared in the paper.