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Plasma Systems Application in Treating Automobile Exhaust Gases for a Clean Environment (Case Study)

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Abstract : Exhaust fuel purification is of great importance to prevent the emission of major pollutants into the atmosphere such as diesel particulates and nitrogen oxides and meet environmental regulations, so environmental impacts are a primary concern of Diesel Exhaust Gas (DEG) which contains hazardous substances harmful to the environment as well as human health.We can not plasma formed through directing electrical energy to create free electrons, which in turn can react with gaseous species, but we can by used to treat engine exhaust gases. . By NO that has been reportedly oxidized to HNO3 and then into ammonium nitrate, and then condensed and removed. In general, thermal plasmas are formed by heating a system to high temperatures 2,000 degrees C, however this can be inefficient and can require extensive thermal management.

Keywords : plasma system application, project physics, oxidizing environment, electromagnetically
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