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(57) Abstract :
ABSTRACT OF THE INVENTION The present invention discloses a novel fuel additive composition designed to enhance combustion efficiency and reduce harmful emissions in internal combustion engines fueled by diesel or gasoline. The composition comprises 40-60% oxygenated compounds (e.g., ethanol, methyl tert-butyl ether), 20-30% combustion catalysts (e.g., cerium oxide), 10-20% stabilizers (e.g., polyisobutylene succinimide), and 5-10% solvaents (e.g., toluene). When blended with fuel at 0.1-0.5% by volume, the additive improves fuel efficiency by 10-15% and significantly reduces emissions, achieving 25-30% reduction in carbon monoxide (CO), 15-20% in nitrogen oxides (NOx), and 20-25% in particulate matter (PM). The additive is prepared by mixing components at ambient temperature followed by filtration, ensuring stability and compatibility with existing fuel systems. It requires no engine modifications and is suitable for spark-ignition and compression-ignition engines, offering a cost-effective solution for environmental sustainability and compliance with stringent emission regulations.

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