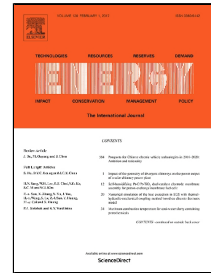


# Accepted Manuscript

Investigation of n-butanol as fuel in a four-cylinder MPFI SI Engine

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- Using oxygenated compound gasoline formulations is common for improving fuel quality.
- Blends of n-butanol with unleaded gasoline were tested between 1400 rpm to 2800 rpm.
- Blends increased brake thermal efficiency and produced lower HC and CO but higher NO<sub>x</sub>.
- Lower NO<sub>x</sub> was observed when ignition timing was retarded.
- Peak in-cylinder pressures and heat release rates for blends were higher.

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