

## **STATE-OF-THE-ART COMPRESSION IGNITION DIRECT INJECTION AFTERTREATMENT SYSTEM FOR U.S. TIER 2 EMISSIONS**

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The modern CIDI (diesel) engine will require advanced aftertreatment systems in order meet Tier 2 emissions regulations. This puts the CIDI at the forefront as a viable power plant for personal transportation needs. With its high efficiency advantage, the CIDI would also contribute to CO<sub>2</sub> reduction and energy savings.

A prototype integrated engine-aftertreatment system has been developed and tested. The system consists of selective catalytic reduction (SCR) and catalyzed soot filter (CSF) components. It was bench tested and vehicle mounted. Preliminary bench and vehicle chassis dynamometer test results will be presented. Substantial NO<sub>x</sub> and PM reductions were attained. Future plans and refinements of the SCR, CSF, and integrated system will be briefly described.