

Reductant Chemistry during LNT Regeneration for a Lean Gasoline Engine

Jim Parks, Sean Huff, John Thomas, Vitaly Prikhodko, Dean Edwards, Paul Chambon, Robert Singleton[†], Bill Partridge, Jae-Soon Choi

Oak Ridge National Laboratory

[†]VW Scholar at the University of Tennessee

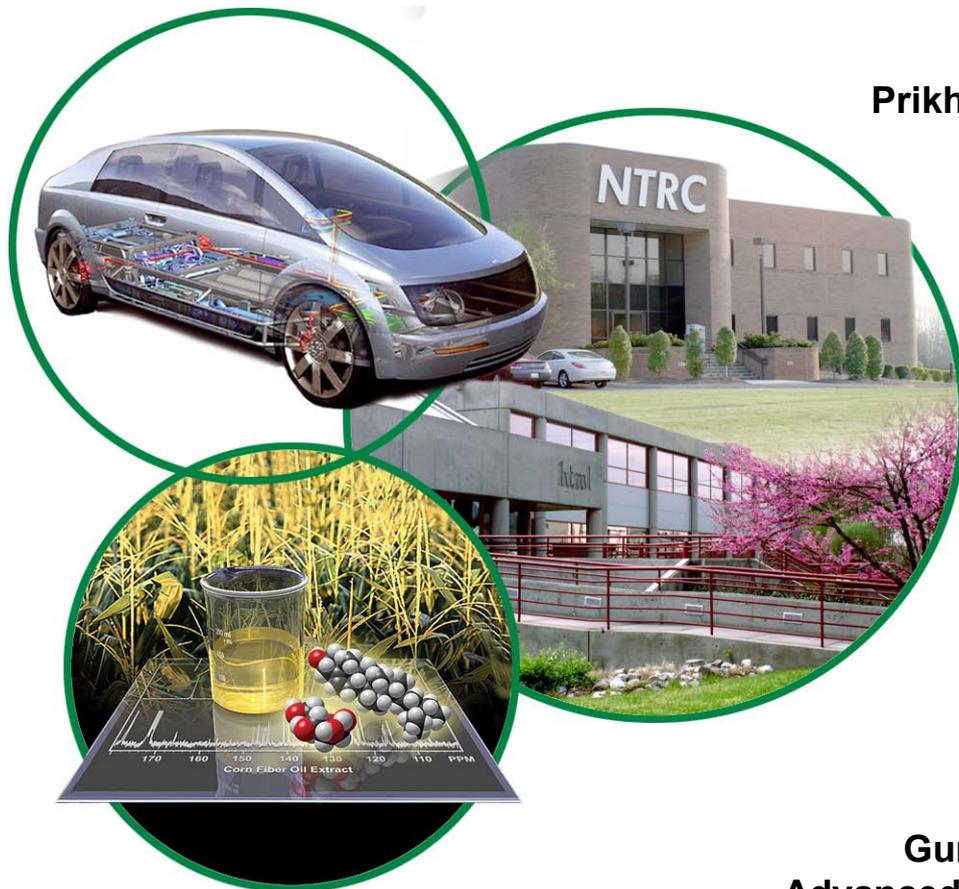
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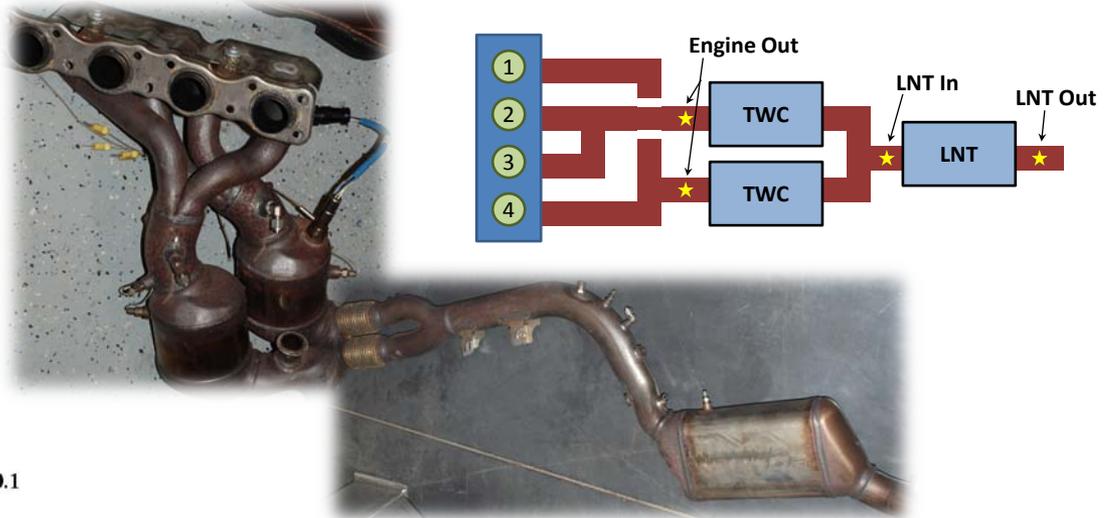
Gurpreet Singh and Ken Howden
Advanced Combustion Engine Program
U.S. Department of Energy



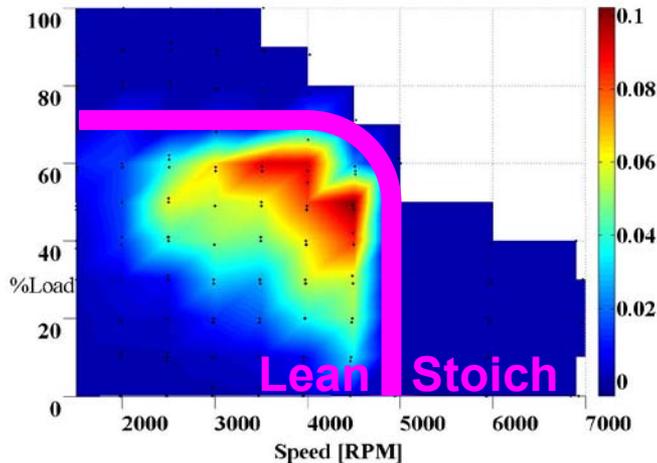
Poster P-09



Emissions of Lean Gasoline Vehicle (European BMW) with Lean NOx Trap (LNT) Characterized

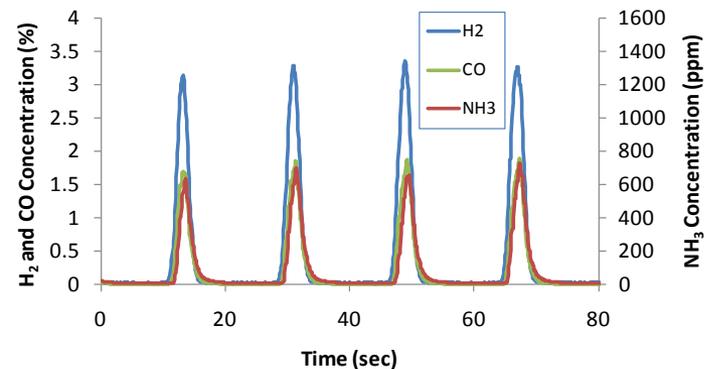


NOx emissions (g/s)



Extending lean operation improves fuel mileage by 4-15%, but NOx emissions exceed U.S. emission regulation levels

Reductants during LNT regeneration



Reductant mixture produced during LNT regeneration differs from diesel engine case