

# 3 posters in one!!!

## POSTER P5

### Validation of a Small Engine Based Procedure for Studying Performance of Engine Lube Oils

William F. Rohr and Ke Nguyen, UTK  
Bruce G. Bunting, ORNL

### Ionic Liquids as Lubricants and/or Lubricant Additives

Jun Qu, Peter Blau, Sheng Dai, Huimin Luo, and Bruce Bunting, ORNL  
Greg Mordukhovich, Donald Smolenski, Wensheng Zhang, and Tasfia Ahmed, GM

### Opportunities for Engine Friction Reduction and Durable Design

Bruce Bunting, ORNL  
Ke Nguyen and Wil Rohr, UTK  
Victor Wong, Arthur Kariya, MIT  
MIT: consortium on Aftertreatment, Diesel Engines, and Lubrication



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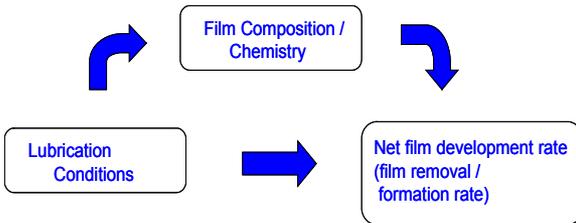
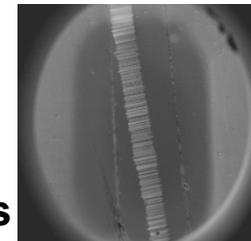
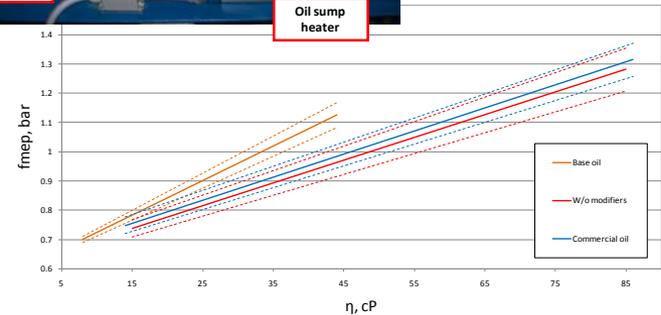
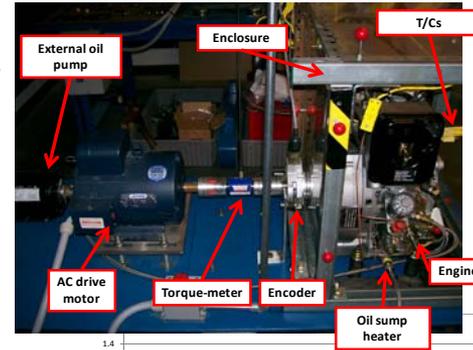


# Improve fuel economy through advanced lube oils

- New or existing engines
- DOE Program Goal.....2% fuel economy improvement by 2015

# Multiple approaches, multiple partners

- ORNL / UTK
  - Small-engine-based lube friction rig
- ORNL / GM
  - Ionic liquids as engine lubricants
- ORNL / MIT/ UTK
  - Behavior of lubricant reaction film



# Purpose of poster

- Introduce projects, tie together, tie to DOE goals
- Solicit input and suggestions

**POSTER P5**

