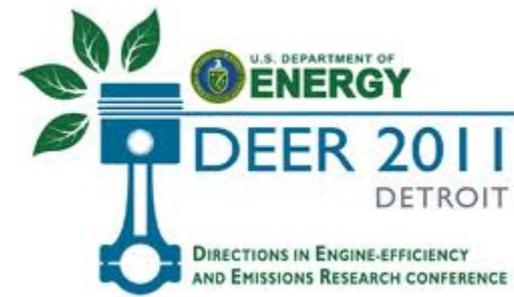




HYDROCARBONS PROFILING SOLUTIONS



Impact of the Fuel Molecular Structure on the Oxidation Process of Real Diesel Fuels According to Storage Conditions and Biodiesel Content

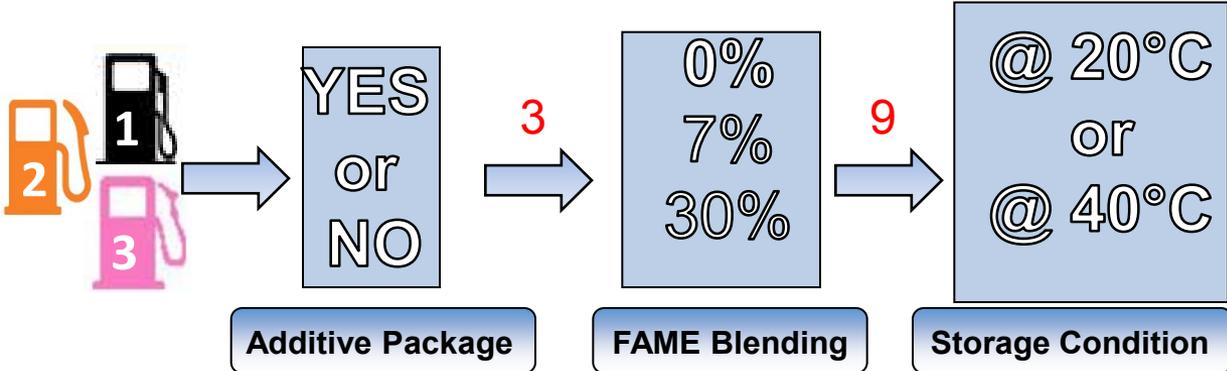
Dr Alain LUNATI and
Dr Oswin GALTIER
SP3H

Poster Location P-13

Motivation :

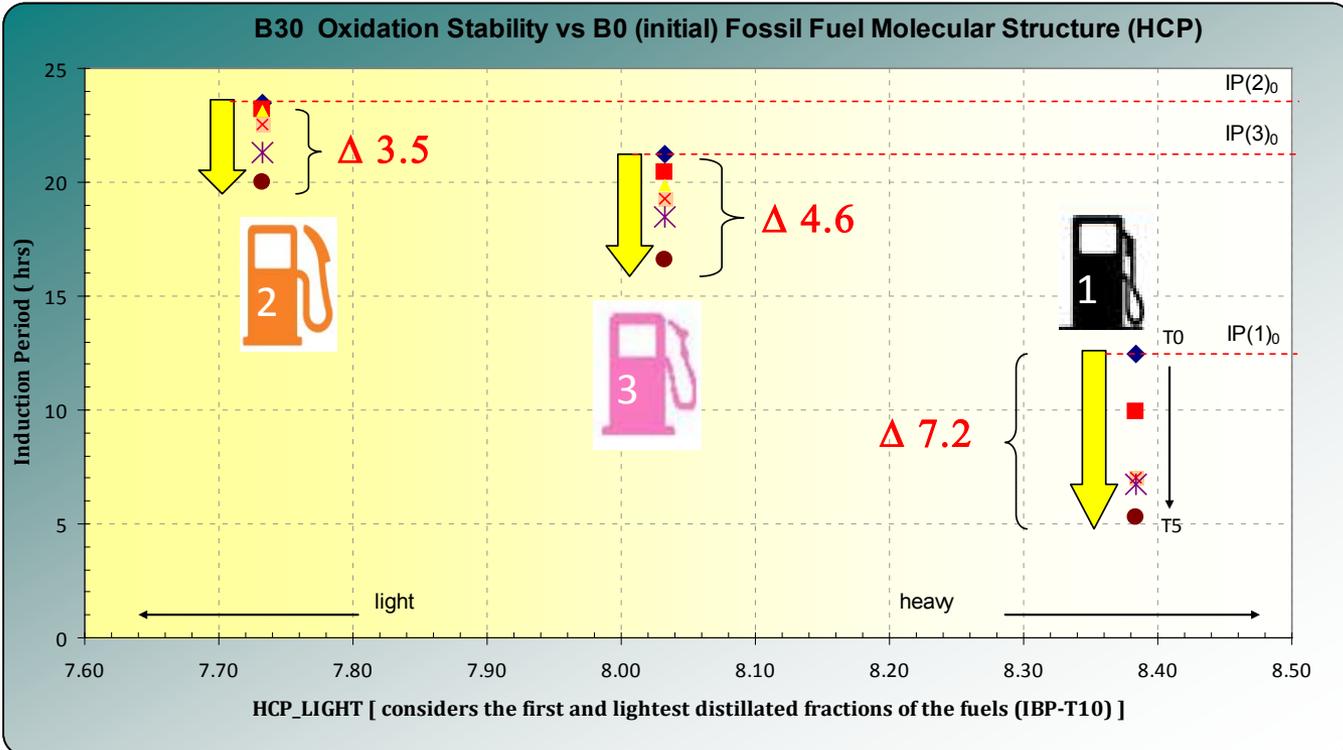
- ↳ Degradation of diesel fuel has significant effects on Fuel System and Fuel Injection Equipment
- ↳ Unstability of diesel fuel results in a change of the chemical composition caused by the oxidation process
- ↳ What is the interaction between T°C, % FAME & Fuel Molecular Composition (HCP) under Fuel Unstability ?

Real Diesel fuels Matrix



18 Fuels

One year period study
 Each month, measurement of :
 • Induction Time (Oxidation Fuel Stability)
 • TAN (Total acid Number)



Fuel COMPOSITION explains Fuel Instability under identical experimental conditions and same rate of RME.

Significant correlation have been found between initial "B0" fuel molecular composition (HCP) and Induction Time (IT)

