

blends was more except for the blend KB40. Although the fuel consumption with KB40 was higher, but may be due to higher viscosity it resulted in poor fuel atomization leading to incomplete combustion, lower heat release and hence lower IP. All the blends revealed almost similar pressure CA characteristics, however early pressure rise and lower ignition delay was observed in case of the blends. Compared to the KSOME blends, the ignition delay period and the pressure rise were early in case of the JME blends. The JME blends also showed better combustion trend with improved rate of pressure rise and heat release due its lower viscosity, increased fuel consumption and slightly higher calorific value. However, BTE values were slightly lower for the JME blends.

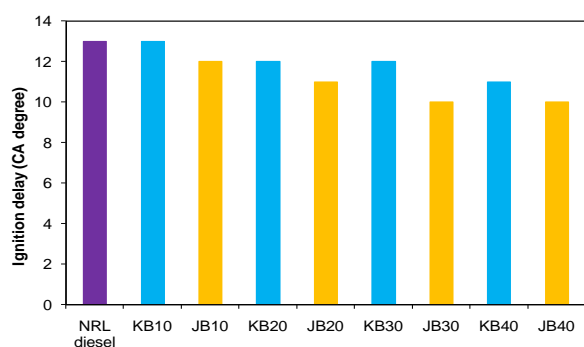


Fig.9. Ignition delay of the various fuels

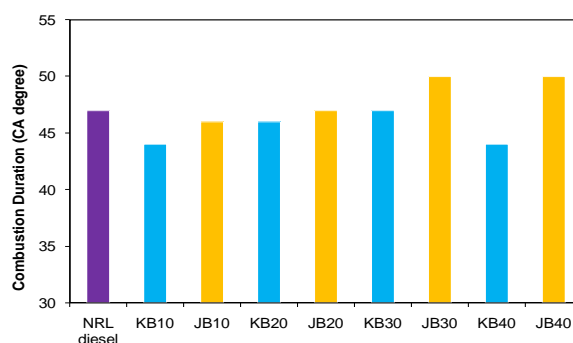


Fig. 10. Combustion duration of the fuels

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