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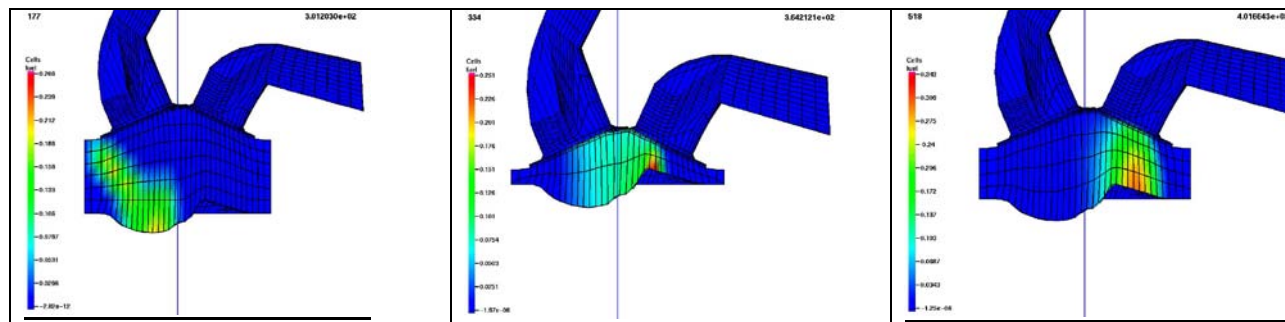
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Theoretical and Experimental Analysis of the Fuel Stream in GDI Engine

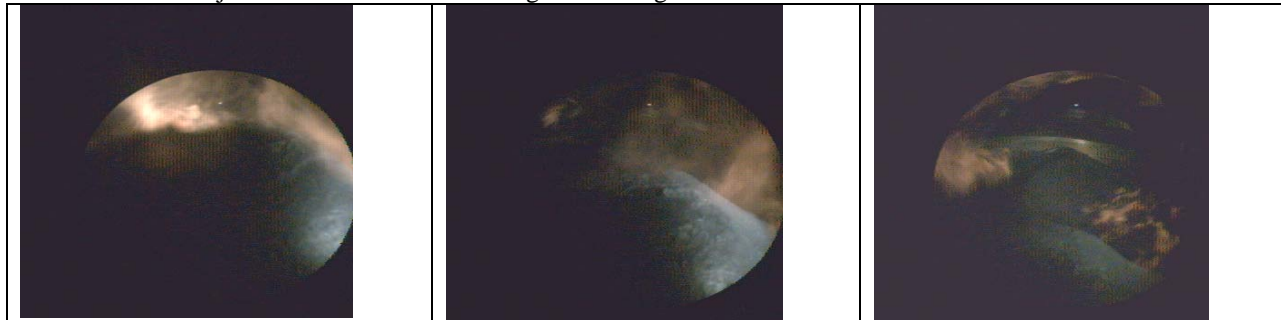
Abstract

Abstract: The paper ranges over demonstration of increase in total efficiency of a GDI engine in dependence on the parameters of mixture formation and range of load at determined states of engine work in dependence on the rotational speed of the engine. By use of the newest simulation programme KIVA 3V possibilities of up-to-date methods of calculation of changes of temperatures, pressures, formation of toxic components during the process of stratified charge combustion were presented. For the determination of the total efficiency of a Gasoline Direct Injection engine, test bed investigations were carried out with the aim to determine the speed and load characteristics of the investigated engine. **Keywords:** GDI Engine, Stratified Charge, Visualization, Combustion process

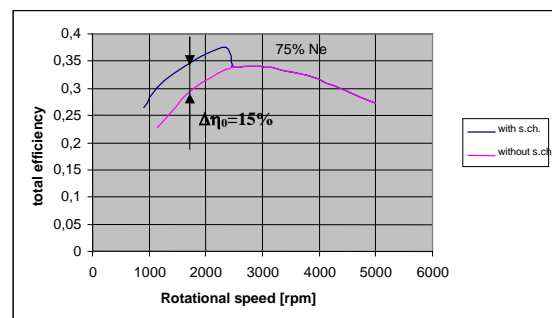
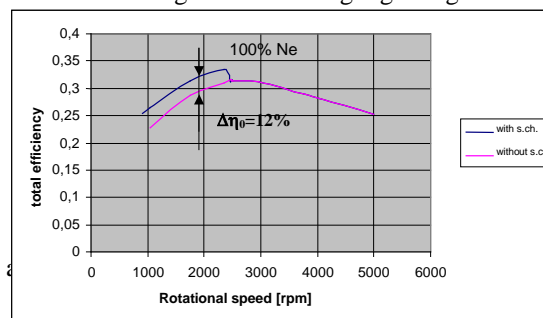
Analysis of the gaseous phase participation



Visualization of injection and combustion in engine working on stratified mixture



Test bed investigations of the 4g93gdi engine



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