

## عنوان مقاله:

thermodynamic assessment and efective energy estimation of de-methyl ether "DME" in diesel engine

## محل انتشار:

سومین همایش موتورهای درونسوز (سال: 1382)

تعداد صفحات اصل مقاله: 10

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## خلاصه مقاله:

Thermodynamic limitation and unsynchronixed properties of compressed natural gas "CNG" to perform a complete thermodynamic cycle in diesel engine, was the cause of creation of a new fuel named DME, extracted from natural gas. This new fuel has the unique properties to be used in diesel cycle engine, also having the advantage og being a clean fuel with loa polluting emission. In this investigation thermodynamic and energy input and output from diesel engine were designed, by extracting the given and known properties "engine mapping" of OM314 diesel engine when using diesel fuel to enable us to estimate the required energy input to the engine when using DME, by thremodynamic assessment of heat release coeffient or Wieble method. Also a scientific assessment on the exhaust gas emission has been carried out to be a basis for design fueling system and engine combustion of DME. The above method has been compared with Freguson applet. As a result the design and calculation of indicator diagram for DME engine has been obtained and was compared with diesel engine's indicator curve. For the first time in this country, this research was carried out with the aim of utilization of natural gas resource in the heavy duty transportation with the preservation .of diesel cycle. Globally it is considered to be an applied research project

## کلمات کلیدی:

DME, Finite Heat Release, Wiebe Function, Equilibrium Combustion Product

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/57437>

