

عنوان مقاله:

A Zero dimensional model for HCCI combustion with blended fuel of DME and methane

محل انتشار:

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خلاصه مقاله:

Homogenous Charge Compression Ignition (HCCI) is a mode of combustion in IC engines in which premixed fuel and air is ignited spontaneously. There is a great potential to improve fuel consumption and reduce NOx emissions using HCCI. In this study, a zero dimensional, thermo-kinetic model has been developed and a computer program with MATLAB software is used to predict engine performance characteristics. This model has been used to predict the principal parameters of controlling auto-ignition to acceptable level and this work leads to achieving the working region .with two limitations for knock and misfire. The cycle is simulated with premixed blend of methane and DME with air

كلمات كليدى:

HCCI, DME, model, combustion, kinetic, natural gas

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