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Experimental investigation on engine performances, combustion characteristics and emission of exhaust gases of VCR engine fuelled with cottonseed oil methyl ester blended with diesel

M. Santhosh Santhosh K. P. Padmanaban Pages 1534-1545 | Published online: 10 Dec 2014

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BMEP of 4.64 bar when compared to diesel. Ignition delay decreased by 13.16% for B100, by the increment of blend proportions when compared to diesel, at BMEP of 4.64 bar. Lower smoke, HC and CO emissions are observed when increasing the blend proportions, whereas the nitric oxide emissions increases due to the better combustion resulted in higher temperatures. At BMEP of 4.64 bar, the CO emissions are reduced to 25.24% for neat biodiesel when compared with the diesel.

KEYWORDS:



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A study of the performance, emission and combustion characteristics of a	compression
ignition engine using methyl ester of paradise oil-eucalyptus oil blends	
Source: Applied Energy	
Performance and emission analysis of cottonseed oil methyl ester in a dies	el engine
Source: Renewable Energy	
Political, economic and environmental impacts of biofuels: A review	
Source: Applied Energy	
Biofuels (alcohols and biodiesel) applications as fuels for internal combusti	on engines
Source: Progress in Energy and Combustion Science	
Biocatalytic production of biodiesel from cottonseed oil: Standardization of	process
parameters and comparison of fuel characteristics	
Source: Applied Energy	
Combustion Characteristics of Diesohol Using Biodiesel as an Additive in a	Direct
Injection Compression Ignition Engine under Various Compression Ratios	
Source: Energy & Fuels	
Investigation of the impact of biodiesel fuelling on $\ensuremath{NO_{x}}$ emissions using an	optical
direct injection diesel engine	
Source: International Journal of Engine Research	
Methyl ester of peanut (Arachis hypogea L.) seed oil as a potential feedsto	ck for
biodiesel production	
Source: Renewable Energy	
Effect of injection pressure on performance, emission and combustion char	acteristics
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using poon oil-based fuels	engine
Source: Fuel Processing Technology	
Influence of biodiesel on engine combustion and emission characteristics	
Source: Applied Energy	
Performance Characteristics of Sunflower Methyl Esters as Biodiesel	
Source: Energy Sources Part A Recovery Utilization and Environmental Effects	
The performance and the gaseous emissions of two small marine craft diesel er	naines
fuelled with biodiesel	ignics
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The effect of compression ratio on exhaust emissions from a PCCI diesel engine	1
Source: Energy Conversion and Management	
Combustion and performance evaluation of a diesel engine fueled with biodiese	اد
produced from sovbean crude oil	
Source: Renewable Energy	
Exhaust emissions and electric energy generation in a stationary engine using l	blends
of diesel and soybean biodiesel	
Source: Renewable Energy	
Performance and exhaust emissions in the use of biodiesel in outboard diesel e	ngines
Source: Fuel	
Characterisation of engine-out responses from a light-duty diesel engine fuelled	d with
palm methyl ester (PME)	
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Source: Applied Thermal Engineering	

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