

Title	Biodiesel production from waste food oils with the new catalytic cracking method
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Abstract	<p>A demonstration examination was conducted to establish a technology for producing high quality biodiesel fuels consisting of olefin and paraffin from the waste food oils in the catalytic cracking method in which the newly developed catalyst is applied.</p> <p>A demonstration facility having a waste food oil processing capacity of 5L/h, and consisting of a catalytic reactor and fractionators was designed and constructed. Then the examination has led to an achievement of a biodiesel yield of approx.60% in weight and 65% in heat (calculated at 87% in heat when other components are included). Moreover, the quality of the biodiesel fuel complied with all regulations in the diesel fuel quality standards.</p> <p>Results of the adaptability evaluation of the fuel to vehicle engine using school bus on 100% biodiesel fuel achieved a mileage of 2,700 km from approximately 500 L of the fuel, indicating the fuel performance on par with that of commercially available diesel fuel.</p>
Keyword	biodiesel, catalytic cracking, waste food oil