

## Brief CV

\*此表请提供中英翻译

<b>English Name</b>	Hwai Chyuan Ong	中文姓名		
<b>Gender</b>	Male	<b>Title</b> (Pro./Dr.)	Dr.	
<b>Position</b> (President...)	Senior Lecturer	<b>Country</b>	Malaysia	
University/Department	Department of Mechanical Engineering			
Personal Web Sites	<a href="https://umexpert.um.edu.my/onghc.html">https://umexpert.um.edu.my/onghc.html</a>			
Research Area	Renewable energy, Biofuel & bioenergy, Energy Efficiency			
Brief introduction of your research experience:				
<p>Dr. Ong Hwai Chyuan obtained his B.Eng. (Hons.) in Mechanical Engineering from Faculty of Engineering, University of Malaya. He continued to pursue his Ph.D. in Mechanical Engineering from the same university and graduated in 2013. His research interests are wide-ranging under the general umbrella of renewable energy. However, his main interests are biofuel &amp; bioenergy, solar thermal and green technology &amp; environmental. Upon the completion of his studies, he was being appointed as a Post-doctorate Research Fellow at University of Malaya. He is currently appointed as a Senior Lecturer at Department of Mechanical Engineering, University of Malaya. He has published more than 80 high impact SCI journal papers with H-index 20 (ISI). In 2017 &amp; 2016, he received the Malaysia's Rising Star Award (young researcher) and Malaysia's Research Star Award (frontier researcher) by Ministry of Higher Education and Clarivate Analytics. Currently, he is associate editor of Journal of Renewable and Sustainable Energy (IF:1.135) and guest editor in Energies (SCI IF=2.262) journal under special issue of "Biofuel and Bioenergy Technology"</p>				
报告题目及摘要/ Title & Abstract *				

<b>报告题目/Title:</b>	<b>Biodiesel Production via Ultrasonication Transesterification process from Jatropha Seed</b>
<b>摘要/ Abstract:</b>	<p>Biodiesel is a promising alternative fuel for diesel because it is biodegradable and able to reduce most exhaust emissions such as monoxide, unburnt hydrocarbons and particulate matter. In the present study, the objective is to optimize the reaction conditions for biodiesel production via ultrasound assisted transesterification of esterified Jatropha oil. The ultrasonic transesterification was conducted in a 1 L beaker by using an ultrasonic probe (Q500-20), with a total power of 500 W and operating frequency of 20 kHz. For each experiment, 20 g of esterified Jatropha oil was reacted with methanol in the presence of potassium hydroxide (KOH) catalyst. The properties of the synthesized biodiesel with the optimum yield were evaluated according to ASTM biodiesel standards. The optimum biodiesel yield of 90% was achieved at methanol to oil ratio of 1:6, 2 wt% KOH, ultrasonic amplitude of 60% and pulse mode of 5s on/2s off within reaction time of 60 min. Results of the analyses also shown that physicochemical and fuel properties of prepared methyl esters fulfilled ASTM biodiesel standard. With the assistance of ultrasonication in the reaction, transesterification process was improved by reducing necessary time for high biodiesel yield. In addition, energy consumption could be minimized as neither external agitation or heating was required. Therefore, ultrasound assisted transesterification can be considered as a promising approach of producing biodiesel as it brings about time-saving and cost-saving as well as high biodiesel yield.</p>

**\*\*\*\*\*All the columns need to be filled in.**