

**COMPARISON OF PYROLYSIS, GASIFICATION AND
LIQUEFACTION PROCESS FOR WASTE CONVERSION
OF EMPTY FRUIT BUNCH (EFB)**

NUR FARRA DIANA BINTI ABDULLAH

**BACHELOR OF SCIENCE (Hons.) APPLIED
CHEMISTRY FACULTY OF APPLIED SCIENCES
UNIVERSITI TEKNOLOGI MARA**

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NUR FARRA DIANA BINTI ABDULLAH

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This Final Year Project Report entitled “**Comparison of Pyrolysis, Gasification and Liquefaction Process for Waste Conversion of Empty Fruit Bunch (EFB)**” was submitted by Nur Farra Diana Binti Abdullah in partial fulfilment of the requirements for the Degree of Bachelor of Science (Hons.) Applied Chemistry, in the Faculty of Applied Sciences, and was approved by

Dr. Siti Nurlia Binti Ali
Supervisor
B.Sc. (Hons) Applied Chemistry
Faculty of Applied Sciences
Universiti Teknologi MARA
02600 Arau
Perlis

Dr. Siti Nurlia Binti Ali
Project Coordinator
B.Sc. (Hons) Applied Chemistry
Faculty of Applied Sciences
Universiti Teknologi MARA
02600 Arau
Perlis

Dr. Nur Nasulhah Binti Kasim
Head of Programme
B.Sc. (Hons) Applied Chemistry
Faculty of Applied Sciences
Universiti Teknologi MARA
02600 Arau
Perlis

Date: _____

ABSTRACT

COMPARISON OF PYROLYSIS, GASIFICATION AND LIQUEFACTION PROCESS FOR WASTE CONVERSION OF EMPTY FRUIT BUNCH (EFB)

The present study review paper about comparison of pyrolysis, gasification and liquefaction process for waste conversion of empty fruit bunch (EFB). This study is about waste conversion of empty fruit bunch (EFB) using different method. We need to determine suitability of products from different conversion methods of EFB. The comparison of these three waste conversion processes was based on several key parameters. This study show that each process has advantages and limitations. Pyrolysis demonstrated the highest bio-oil yield, making it a promising route for fuel production. While gasification showed the highest hydrogen content in syngas, indicating its potential as renewable hydrogen source. On the other hand, liquefaction produced a liquid biofuel with higher energy density compared to bio-oil from pyrolysis.

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