CO – PYROLYSIS OF SUGARCANE BAGASSE AND OIL PALM EMPTY FRUIT BUNCH (EFB)

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Final Year Project Report Submitted in
Partial Fulfilment of the Requirement for the
Degree of Bachelor of Science (Hons.) Applied Chemistry
in the Faculty of Applied Science
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MAY 2009

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ACKNOWLEDGEMENTS

By the name of Allah S.W.T, The Most Gracious and The Most Merciful. I am very thankful to Allah S.W.T for giving me an opportunity to express my little appreciation in this project.

I want to express my greatest gratitude to my supervisor, Norjanah Bt Yury for giving me guidelines, support and assistance until this project completed. I tried my best to complete this proposal under her supervision. Without her supervision, I may face many difficulties to finish it. Thank you for your kindness in helping me to overcome all problems that has occurred during the completion of my project on 'Co - pyrolysis of sugarcane bagasse and oil palm empty fruit bunch (efb)'.

Special thanks to lab assistants for their helps, also to my beloved family who understands and support me in every way I needed. Last but not least, to my friends, thanks so much for their helped in terms of ideas and information to complete this study.

Thank You.

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ABSTRACT

CO - PYROLYSIS OF SUGARCANE BAGASSE AND EMPTY FRUIT BUNCH (EFB)

Pyrolysis is an advanced and a technology to converts solid resources into liquid products which could be processed into liquid fuel and a value added chemicals. It converts at high yields of liquid products that can be stored and transported. The effect of process parameters such as pyrolysis temperature, heating rate on the yields of pyrolysis products and their gas flow rate utilized. This research only study about the effect of pyrolysis reactor temperature in the production of pyrolytic oil and char sample. The temperature of the pyrolysis reactor playing an important role in distribution of product yield. The pyrolytic products were analyzed by GCMS. This sugarcane bagasse sample was used to characterize the raw and char sample produced by using proximate and ultimate analysis. During pyrolysis, biomass thermally decomposed to solid charcoal, liquid oil, and hydrogen rich gases under an oxygen absence condition. Generally, hydrogen gas products are favored at high temperature. The percentage of product yield was different in different temperature of pyrolysis analysis. The higher the temperature, the higher pyrolytic oil produced.