

**PREPARATION AND CHARACTERIZATION OF POLYANILINE,
CELLULOSE TRIACETATE AND CELLULOSE TRIACETATE-
POLYANILINE-LITHIUM SALT BLEND FILMS**

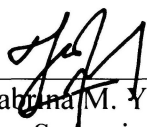
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**Final Year Project Report Submitted in
Partial Fulfillment of the Requirements for the
Degree of Bachelor of Science (Hons.) Applied Chemistry
in the Faculty of Applied Sciences
Universiti Teknologi MARA**

MAY 2009

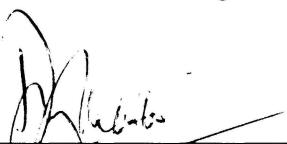
APPROVAL SHEET

This Final Year Project Report entitled “**Preparation and Characterization of Polyaniline, Cellulose Triacetate and Cellulose Triacetate-Polyaniline-Lithium salt blend films**” was submitted by Faith Paujik, 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



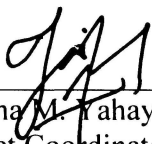
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ACKNOWLEDGEMENTS

First of all, I wish to express my sincere appreciation to my supervisor Miss Sabrina M. Yahaya for her supervision and encouragement. I am also gratefully acknowledging my co-supervisor Dr. Dzairani bt Kamarun for her guidance and valuable comments.

I also thank all academic and technical staffs of the Faculty of Applied Science, UiTM for their advice and assistance in using instrument such as Fourier Transform Infrared (FTIR) Spectroscopy, Scanning Electron Microscopy (SEM) and Electrochemical Impedance Spectroscopy (EIS).

Finally, I would like to express the utmost thanks to my parents and my family members for their faithful love and support throughout the entire tenure of my studies. To all of them, I extend my gratitude and thanks.

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ABSTRACT
**PREPARATION AND CHARACTERIZATION OF POLYANILINE,
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POLYANILINE-LITHIUM SALT BLEND FILMS**

A study is being done on polyaniline, cellulose triacetate and cellulose triacetate-polyaniline-lithium salt blend films. Polyaniline containing lithium salt is blended with cellulose triacetate to obtain both good physical and electrical properties. It was found that at 20% weight percentage salt, conductivity is the highest which is 2.829×10^{-6} . This result agrees with Scanning Electron Microscopy (SEM) result which shows there is more conducting path in the film. As the addition of lithium salt increases, conductivity started to decrease due to formation of neutral ion pair thus reducing free mobile ions. The Fourier Transform Infrared Spectroscopy (FTIR) study shows that complexation between polyaniline and lithium salt occurs.