

**AC IMPEDANCE MEASUREMENT OF ZINC OXIDE WITH  
DIFFRENT HEAT TREATMENT**

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

**MAY 2011**

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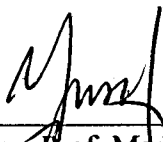
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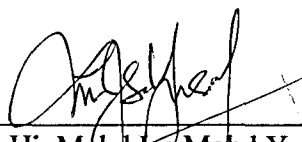
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## ACKNOWLEDGMENT

Allahamdulillah.....

First of all, I am really grateful to greatest Allah s.w.t for blessing that have been given me the strength and ability to complete this proposal as the way it has to be.

In preparing this proposal I want to express my gratitude and sincere appreciation to my supervisor, Pn. Annie Maria for her encouragement and guidance, critics, knowledge and friendship and also special thank to my co-supervisor Prof. Dr. Norlida Kamarulzaman with her advices.

I also want wish a lot of thank to all the research lab assistance for your help and moral support in order to finish this thesis.

Abbas bin Mahmud

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## Abstract.

Zinc oxide powders were synthesized combustion method using citric acid as the precursor. The structure and morphology of synthesized powders were investigated and characterized by X-ray diffraction (XRD) and the electrochemical impedance spectroscopy (EIS). XRD results indicate that pure single phase zinc oxide of rutile structure had been obtained. It was also revealed that annealing temperature plays an important role in the formation of single phase zinc oxide powder. Conductivity studies using a.c impedance technique was used. The conductivity of the sample that annealed at 650 °C with 3 hour annealing time is the higher and follows by sample with 5 hour annealing time and sample with 24 hour annealing time.