AC IMPEDANCE MEASUREMENT OF ZINC OXIDE WITH DIFFRENT HEAT TREATMENT

ABBAS BIN MAHMUD

Final Year Project Report Submitted in
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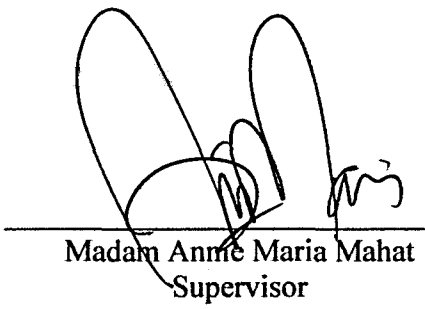
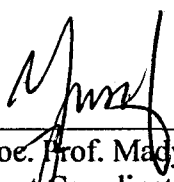
This Final Year Project Report entitled **"AC Impedance Measurement of Zinc Oxide with Different Heat Treatment"** was submitted by Abbas bin Mahmud, in partial fulfillment of the requirements for the Degree of Bachelor of Science (Hons.) Industrial Physics, in the Faculty of Applied Sciences, and was approved by

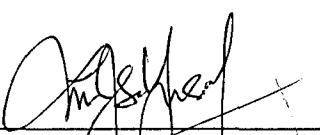


Madam Anne Maria Mahat
Supervisor
B. Sc. (Hons.) Industrial Physics
Faculty of Applied Sciences
Universiti Teknologi MARA
40450 Shah Alam
Selangor

Prof. Dr. Norlida Kamarulzaman
Co-supervisor
B. Sc. (Hons.) Industrial Physics
Faculty of Applied Sciences
Universiti Teknologi MARA
40450 Shah Alam
Selangor



Assoc. Prof. Madya Yusof Teeran
Project Coordinator
B. Sc. (Hons.) Industrial Physics
Faculty of Applied Sciences
Universiti Teknologi MARA
40450 Shah Alam
Selangor



Tn. Hj. Mohd Isa Mohd Yusof
Head of Programme
B. Sc. (Hons.) Industrial Physics
Faculty of Applied Sciences
Universiti Teknologi MARA
40450 Shah Alam
Selangor

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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 ^{0}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.