CORROSION BEHAVIOR OF ALUMINIUM IN PRESENCE OF CHLORIDE

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Thesis submitted in partial fulfillment of the requirement for the Degree of Bachelor Science (Horns.) Chemistry

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ACKNOWLEDGEMENT

Fist of all, I would like to thank Dr. Misbahul Amin, my supervisor of my final year project, which always concern and spend a lot of time to discuss, guide, teach, and giving advise to me.

Besides that, I would like to thank Mr. Suhaimi Suratman, our coordinator who always tolerances with us and give us enough time to complete the final year project and thesis.

Next, I also would like to thank Kak Asbah, Mr, Tamizi, Mr. Ruzeman, Mr Jamal and others laboratory's assistance who help me a lot in giving suggestion and advice in progressing of borrowing and booking chemicals and instruments.

Then, I would like to thank my course-mate who given me a ride and all my fellow friends which given me advice and help me a lot while I am doing my final project.

Finally, I would like to thank my family members who given me a lot of support and advice when I am doing my final year project.

ABSTRAK

Dengan kehadiran sejenis bahan elekrolitik bertaburan atas permukaan suatu logam atau aloi akan mencetuskan sesuatu keadaan dikenali sebagai pengaratan. Garam alkali atau garam alkali logam adalah lebih cendurung untuk tindak balas ini. Logam Aluminium kebanyakkan digunakan untuk pembinaan dan lain kerana ia adalah ringan dan tahan kepada pengaratan. Ciri-ciri pengoksidaan pada suhu rendah bagi Aluminium telah dikaji dengan kehadiran $MgCl_2$. $CaCl_2.2H_2O$, $BaCl_2$, $ZnCl_2$, dan air laut pada suhu 300°C hingga 600°C dalam udara biasa. Morfologi bagi sampel dikaji dalam peperiksaan macroskopik. Ini akan menunjukkan sampel karat dalam nisbah yang berlainan dengan kehadiran garam alkali logam.

ABSTRACT

The presence of an electrolytic deposit on a metal or alloy surface may bring about an accelerated environmental attack known as corrosion. Alkaline or alkaline earth metal salts are capable to propagate this attack. Aluminium metal is used extensively in building and others due to its light weight and corrosion resistant materials. The low temperature oxidation behaviour of Aluminium has been investigated in presence of $MgCl_2$, $CaCl_2.2H_2O$, $BaCl_2$, $ZnCl_2$, and seawater at temperature 300°C to 600°C in the open air. The morphologies of samples were examined on the basis of macroscopic examination. It has been shown that samples corrode at a different rate in presence of alkaline earth metal salts.