

CHAPTER 5

CONCLUSIONS AND SUGGESTIONS

In this chapter presented the conclusion of dissertation title: Development of Al-Zn Alloy Cathode and Cu Anode for Electrochemical Cells Al-Zn Alloy Cathode and Cu Anode for Electrochemical Cells. The conclusions were followed by the dissertation objectives and suggestions.

CONCLUSION

The synthesized Al-Zn alloy cathode and Cu anode by hotpress method were confirmed single phase of Cu anode and Al, Al-Zn alloy cathodes. Therefore, this preparation indicated that received the high pure metals.

Characteristic measurement, the crystal structure of Zn (0, 1, 2, 3, 4 and 5 wt %) doped Al confirmed that found the Zn phase at 5% of Al-Zn alloy cathode. The resistance of Al-Zn (1-5 wt%) cathode affected the resistance decrease. The Vicker hardness and density increased when Al were doped by Zn. The microstructure Zn (0, 1, 2, 3, 4 and 5 wt %) - doped Al confirmed that found the elements Al-Zn cathode.

Cyclic voltammetry technique showed Al-Zn alloy cathode and Cu anode behavior as maximum capacitor of Al-Zn3% and Cu anode.

Dip Al-Zn alloy cathode and Cu anode in aqueous NaCl lead to discharging received electrical potential, electrical current and electrical power that inverse proportion of time.

SUGGESTION

1. The next research, the capacitance of the cathode and anode should be studied.
2. The next research, it should be dope anode.