



CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

The diffusivity of SDS was measured by the transient capillary rise method. In order to obtain the diffusivity, a mathematical model was developed using the theory of capillary force, Gibbs plot (surface tension versus concentration), and mass transport of the surfactant in the tube. The conclusions drawn from the experimental results are indicated as follows:

- 1) The transient capillary rise method cannot be applied to solutions of which the concentration is higher than CMC.
- 2) The SDS diffusivity obtained from this method is higher than the literature values.

5.2 Recommendations

- 1) The experimental set-up should be adjusted in order to maintain a constant level of bulk liquid as the level affects the transient capillary rise rapidly.
- 2) More experimental data of SDS diffusivity from other methods is needed.
- 3) The validity of this technique can be assured by using other types of surfactant.