

CHAPTER 5

Summary

An attempt was made to prepare thin films of CdS and CdSSe by electrodeposition. Several conditions of deposition such as concentration, deposition potential, time of deposition, substrate, use of different counter electrodes etc., were studied. The optical characterisation of the films yielded good results with respect to the data on the film thickness and the band gap.

The application of the films mainly as solar cells was studied. The use of Cadmium and selenium for such purpose was considered based on the toxicity, which is found to be very less in the case of cadmium compounds. Selenium however is a carcinogenic substance and has greater toxic effects on the environment. Emphasis was basically on the preparation using a home made set up and through the electrodeposition process, which is comparatively simple. Relatively good films were prepared with very few conditions of deposition, which made the study interesting.

With the growing need in energy resources the thin films are good alternatives as solar cells. It is hoped that this attempt may provide a possible method of obtaining such films at a lower cost and simplified conditions.
