

DEVELOPMENT OF AN ELECTRICALLY CONTROLLED  
EVAPORATOR PAN

by

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The purpose of the project is to develop an electrically controlled evaporator pan to be used in a chemical procedure described as follows;

In order to monitor large volumes of aqueous samples for radionuclide contamination , it is necessary to concentrate the sample by evaporating the excess water and collecting the impurities on a piece of filter paper .The evaporation must be done under controlled conditions so that the impurities are not lost due to boiling.

The production of the necessary surface evaporation is done by using infrared lamps on the top of the sample.This is a time consuming procedure and is carried out overnight. The evaporation is done proportionally ie. as the filter paper dries, the heating produced by the infrared lamps is reduced until the lamps are finally switched off.

In order to sense the dampness of the filter paper the project offers the facility of using either a conductivity sensor or a temperature sensor.

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