

MALNAD COLLEGE OF ENGINEERING
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A PROJECT REPORT ON
“DEFLUORIDATION OF WATER USING TRIDAX
PROCUMBEN”

Submitted in partial fulfillment of the requirement for degree of Bachelor of Engineering in
Civil Engineering

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ABSTRACT

Defluoridation by adsorption is an established technique. Though the method looks to be simple, the cost of adsorbent used and the increasing maintenance cost necessitate the search for an alternative material.

The present study deals with the adsorption studies of fluoride by using activated carbon as the adsorbent. Though many defluoridation techniques had been tried out to remove the excess amount of fluoride and bring it down to the safe permissible limits, all of them have their short comings.

In the present study feasibility of activated carbon plant Tridax procumben, which is efficient in decreasing the fluoride concentration is checked by the preparation of the activated carbon from stem and flower part of the plant.

Series of test has been conducted to know the optimum time and optimum dosage of the activated carbon to be employed for the prepared artificial sample. The sample concentrations were analyzed using SPECTROPHOTOMETER.

The results obtained were quite satisfactory in comparison with other techniques. With a detailed study, this technique can be employed in rural areas and places where expensive technique cannot be adopted.

It can be adopted in industrial level if the specific concentration of activated carbon for certain known amount of water, with a view to keep the level of certain parameters under permissible limit.