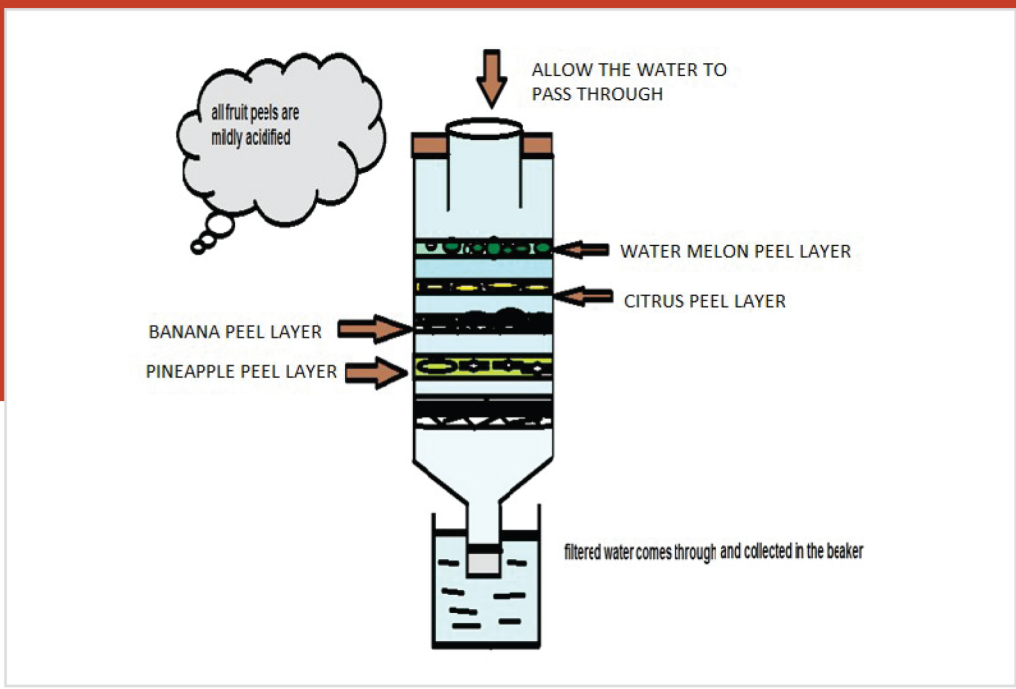
Pavan A
AE

53 PROJECT

LOW COST BIOTIC SEMI-PERMEABLE MEMBRANE USING FRUIT PEEL WASTE



This project explores the use of protonated or activated biotic layers / semi-permeable membrane made from fruit peels waste (FPW) to reduce toxic froth from urban lakes in Bengaluru. The main pollutants are fluorides, nitrates and effluents of phosphorous released with the untreated sewage water from the industries and domestic buildings surrounding the water bodies.

This is the first organic or biotic method of removal of these froth causing agents in lake water. It is much cheaper than the available methods which are chemical based and are non-economic.

Features

- The activated semi-permeable biotic membrane is made of acidified watermelon, banana, pineapple and citrus peels. These are low-cost alternatives for removing the frothing agents in lake
- The adsorbent is activated using acid which makes the process spontaneous.
- Fruit peel wastes are treated with mild acid to increase their efficiency so that they adsorb at a faster and countable rate