

## Microfiltration of pretreated sanitary landfill leachate

### Abstract:

A laboratory study using a bench scale model of two units operation involving coagulation process with *Moringa oleifera* seeds extract as a coagulant and filtration process using hollow fibre microfiltration membrane, was adopted to treat Air Hitam Sanitary Landfill leachate in Puchong, Malaysia. The performance of the microfiltration membrane in pretreated sanitary landfill leachate treatment was investigated through a continuous process. The leachate sample was passed through conventional coagulation process before being filtered through a hollow fibre microfiltration membrane of 0.1  $\mu\text{m}$  surface pores. The hollow fibre microfiltration membrane decreased the turbidity, colour, total suspended solids, total dissolved solids and volatile suspended solids in the leachate by 98.30, 90.30, 99.63, 14.71 and 20%, respectively. The results showed that microfiltration is capable of removing high percentage of solids from leachate and might be considered as a polishing stage after on-site biological treatment for sanitary landfill leachate.