REVIEW ON USE OF MEMBRANE PURIFICATION IN RADIOACTIVE WASTE MANAGEMENT

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ABSTRACT

The dangers of radionuclides emitted by nuclear power plants are well recognized. To condense the radionuclides and prevent their diffusion into the environment, separation methods are employed. The current study discusses recent developments in the treatment of radioactive waste utilizing membrane separation technology. The first section covers membrane techniques for collective radionuclide separation, whereas the second section covers membrane techniques for selected radionuclide separation. Reverse osmosis, precipitate followed by ultrafiltration or microfiltration, and membrane distillation are all techniques for separating radionulides. Liquid assisted membranes, polymer inclusion membranes, solid synthetic polymer electrolysis, nanofiltration, electrochemical salt-splitting technique, and other sophisticated separation technologies have been used to isolate individual components.

KEYWORDS: *Membrane purification, Purified radioactive source, radioactive wastes, Electrolysis.*

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