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# Freshwater Recovering and Water Pollution Controlling Technology

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**Abstract :** In nature, water may not be free from contaminants due to its polar nature. But, more than this, the environmental water is highly polluted by manmade activities from industrial, agricultural, recreation, shipping, and domestic sites, thereby increasing the shortage of freshwater for designated purposes. Therefore, in the face of water scarcity, human beings are enforced to look at all the existing opportunities to get an adequate amount of freshwater resources. The most probable water resource is wastewater, from which the water can be recovered to serve designated purposes (for industrial, agricultural, drinking, and other domestic uses). Present-day, the most preferable method for recovering water from different wastewater streams for re-use is membrane technology. This paper looks at the progressive development of membrane technology in wastewater treatment. The applications of pressure-driven membrane separation technology (microfiltration, ultrafiltration, nano-filtration, reverse osmosis, and tissue purification) and no pressure membrane separation technology (semipermeable membrane, liquefiedfilm, and electro-dialysis) and also ion-exchange were reviewed. More than all, the technology for converting environmental water pollutants into energy is of considerable attention. Finally, recommendations for future research relating to the application of membrane technology in wastewater treatment were made. Also, further research recommendation about membrane fouling and cleaning was made.

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