

## Water Purification By Novel Nanocomposite Membrane

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**Abstract :** Currently, 1.1 billion people are at risk due to lack of clean water and about 35 % of people in the developed world die from water related problem. To alleviate these problems water purification technology requires new approaches for effective management and conservation of water resources. Electrospun nanofibres membrane has a potential for water purification due to its high large surface area and good mechanical strength. In the present study PAMAM dendrimers composite nylon-6 nanofibres membrane was prepared by crosslinking method using Glutaraldehyde. Further, the efficacy of the modified membrane can be renewed by mere exposure of the saturated membrane with the solution having acidic pH. The modified membrane can be used as an effective tool for water purification.

**Keywords :** dendrimer, nanofibers, nanocomposite membrane, water purification

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