

## Applications Of CNTs In Water And Wastewater Treatment

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### Abstract

Shortage of fresh water and relative lack of clean, renewable energy are two large scale problems that can be improved by utilizing breakthroughs in membrane technology. Worldwide, water supply struggles to keep up with the fast growing demand of water, which is exacerbated by population growth, global climate change, and water quality deterioration. The need for technological innovation to enable integrated water management cannot be overstate. CNT membranes have numerous properties that make them superior to conventional membrane materials. Due to the hydrophobic, atomically flat core of the carbon nanotubes, CNT membranes show fluid flow up to four orders of magnitude higher than conventional membranes. Here we review recent development in CNTs for water and wastewater treatment. The discussion covers introduction about CNTs & their application in water & waste water for organic & heavy metals removal .finally a Comparison of CNTs based membrane with other conventional membranes were considered.

*Keyword: CNTs, water, wastewater, organic removal, heavy metal removal.*