



## Mechanism of removal of pharmaceuticals and personal care products by nanofiltration membranes

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### ABSTRACT

Much attention has been paid to pharmaceuticals and personal care products (PPCPs). Nanofiltration (NF) is a new type of separation technology developed between ultrafiltration and reverse osmosis (RO) in the mid-1980s, which is a continuation and development branch of the ultra-low pressure RO technology. PPCPs are a kind of water ubiquitous trace organics, and there are some disadvantages of the PPCPs, such as recalcitrance, accumulation of biological toxicity and long-term dangers, which gradually attracts the attention of the scientific community due to the harm to the environment and ecosystems. This paper analyses the latest research progress in this country and overseas, introducing the advantages on removal of the PPCPs by NF membranes, also recommending the mechanism of the removal process and influencing factors. The direction of future research is proposed as well.

*Keywords:* PPCPs; Nanofiltration membrane; Water treatment

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