# Article information:

Microporous organic nanotube assisted design of high performance nanofiltration membranes | Nature Communications
<https://www.nature.com/articles/s41467-022-35681-9>

# Article summary:

1. The prevalence of water shortages and contamination is a major impediment to sustainable development.

2. Nanofiltration (NF) membranes are commonly used for liquid separations, but they offer little control of pore morphology and charge uniformity.

3. Microporous organic nanotubes (MONs) can be used to form a highly porous layer via filtration-assisted assembly, precisely regulating IP to yield MON-based polyamide membranes with improved microporosity and separation performance.

# Article rating:

Appears well balanced: The article presents the information in a reliable and balanced way, without biases and prejudices. The claims made in the article are well supported and, where applicable, all sides of the argument are given opportunity to present their point of view. The article appears trustworthy and reliable.

# Article analysis:

The article provides an overview of the current state of water shortages and contamination, as well as the need for high-precision separations of ions and solutes in order to address these issues. The article then goes on to discuss the potential use of microporous organic nanotubes (MONs) in the design of high performance nanofiltration membranes. The article is generally well written and provides a comprehensive overview of the topic at hand.

The article does not appear to have any biases or one-sided reporting, as it presents both sides equally and does not make any unsupported claims or missing points of consideration. Furthermore, it provides evidence for its claims by citing relevant studies that support its arguments. Additionally, there is no promotional content or partiality present in the article, as it focuses solely on providing an objective overview of the topic at hand. Finally, possible risks are noted throughout the article, such as potential defects in NF membranes due to uneven diffusion of diamine monomers through non-uniform support pores.

In conclusion, this article appears to be trustworthy and reliable overall, providing an objective overview of the potential use of MONs in designing high performance nanofiltration membranes without any biases or one-sided reporting present.

# Topics for further research:

* Nanofiltration membrane design
* Water contamination solutions
* Microporous organic nanotubes
* Ion and solute separations
* Diffusion of diamine monomers
* Non-uniform support pores

# Report location:

<https://www.fullpicture.app/item/b558059d1b0e6131ce2b1946d401a57a>