# Article information:

Filter membrane renders viruses harmless | ETH Zurich
<https://ethz.ch/en/news-and-events/eth-news/news/2021/06/filter-membrane-renders-viruses-harmless.html>

# Article summary:

1. Researchers at ETH Zurich have developed a filter membrane made from natural raw materials that is highly effective at filtering and inactivating a wide variety of air-borne and water-borne viruses, including the H1N1 flu virus and the SARS-CoV-2 virus.

2. The membrane works by combining amyloid fibrils with iron hydroxide nanoparticles, which creates a positively charged trap for negatively charged viruses, effectively inactivating them.

3. The environmentally friendly membrane could be used in wastewater treatment plants or for drinking water treatment, as well as in air filtration systems or masks, and can be composted after use due to its eco-friendly materials and minimal energy production requirements.

# Article rating:

Appears moderately imbalanced: The article provides some useful information, but is missing several important points or pieces of evidence that would be required to present the discussed topics in a balanced and reliable way. You are encouraged to seek a more balanced perspective on the presented issues by exploring the provided research topics and looking at different information sources.

# Article analysis:

The article discusses the development of a new filter membrane that can effectively remove and inactivate a wide range of air-borne and water-borne viruses. The membrane is made from eco-friendly materials, which makes it an attractive option for use in wastewater treatment plants or drinking water treatment. The article highlights the potential benefits of this technology, including its ability to eliminate dangerous gastrointestinal infections caused by enteroviruses, which kill around half a million people every year.

However, the article does not provide any information on the potential risks associated with using this technology. For example, it is unclear whether there are any negative environmental impacts associated with the production or disposal of the filter membrane. Additionally, there is no discussion of how this technology might impact communities that rely on water sources contaminated with viruses.

Furthermore, the article presents only one side of the argument and does not explore any counterarguments or alternative viewpoints. For instance, while the article notes that nanofilters for viruses are made from petroleum-based raw materials and reverse osmosis requires a relatively large amount of energy, it does not discuss any potential drawbacks associated with using whey proteins to create the filter membrane.

Overall, while the article provides valuable information about a potentially groundbreaking technology for virus removal from water sources, it lacks critical analysis and fails to present both sides of the argument.

# Topics for further research:

* Environmental impact of filter membrane production and disposal
* Risks associated with using virus removal technology in contaminated water sources
* Alternative viewpoints on the use of whey proteins for filter membrane creation
* Energy consumption of reverse osmosis technology
* Potential drawbacks of using eco-friendly materials for virus removal
* Social and economic impacts of implementing virus removal technology in water treatment plants.

# Report location:

<https://www.fullpicture.app/item/75bc78b665b3a325ad58978680e156ac>