

## **PVA nanofibres based water filter can remove tiny plastics**

Water filters on the market today can remove some contaminants, but they are not designed to capture microplastics. In fact, some of them may actually add small plastics into drinking water during the filtration process. What is worse is these microplastics can cause inflammation, increase the risk of cancer and act as carriers for harmful chemicals that trigger other health problems.

University of Missouri researcher and collaborators are coming up with a new way to trap those tiny invaders—and protect the public—through a fabric-like filter. The filter membrane is made from polyvinyl alcohol fibers, which are polymers currently used in biomedical applications. The team chose the material because it is low-cost and biocompatible, meaning it is not toxic to humans, animals or plants.

It is also proving to be effective. In lab tests, the membrane was able to remove nearly 100% of larger microplastics and nearly 80% of the smallest microplastics, while at the same time removing about 70% of lead contamination. (Source: A.N.Gopakumar et al, J App.Polymer Sci, 2024).