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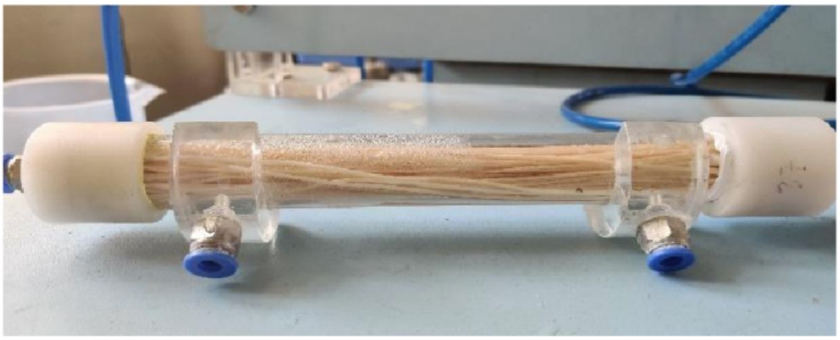
GRANTED

(IN487584)
Hollow fiber membrane and preparation thereof



NEED

In many filtration systems, efficient separation is hindered by the lack of hydrophilic-hydrophobic surface properties. What if a membrane could optimize these features to enhance filtration efficiency in water treatment or other systems?

MARKET ANALYSIS

The global water filtration market is projected to grow at a CAGR of 8.2% from 2023 to 2033, driven by increasing demand for clean water and efficient filtration systems. (Source: Grand View Research 2023)

TECHNOLOGY OVERVIEW

This patent describes a hollow fiber membrane with distinct hydrophilic inner and hydrophobic outer surfaces. The membrane's unique structure improves filtration efficiency, offering high salt rejection and water permeability, ideal for water treatment applications.

Target Industries

1) Water treatment and purification industries seeking advanced filtration solutions; 2) Chemical and pharmaceutical industries requiring precise separation; 3) Environmental engineering companies focused on improving filtration efficiency.

TECHNOLOGY KEY FEATURES

Hydrophilic inner surface, hydrophobic outer surface; pore size: 50-65 µm; water permeability: 3–4 L/m²h-bar; salt rejection: 70-85%; thickness: 100–300 µm; packing density: 30-70%.

AT A GLANCE

- SDG 6 (Clean Water), SDG 9 (Industry, Innovation), SDG 12 (Responsible Consumption)

Read more here

Technology is available for licensing/ co-development.

Reach out to Prof. Deepak Chitkara, Coordinator, BITS Technology Enabling Centre,
BITS Pilani Contact Details: tec.bits@pilani.bits-pilani.ac.in, 91 1596-255913

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