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簡歷： http://www.che.ntu.edu.tw/ntuche/cht/prof_detail.php?id=52

市場及需求：

近年，隨著工業用水回收比例逐年升高，工業用水的組成成分日益複雜，工業用水排放規範日漸嚴謹(如 2016 年的氮氮排放全面管制)，高效能的水處理科技需求日殷依賴。

技術摘要(含成果)：

透過在多孔的基材膜上沉積氧化物奈米粒子製備出多層次特殊結構，然後進行表面氟化塗層以降低膜的表面能來製備可以應用在處理低表面能廢水的全疏膜

優勢：

無機的薄膜具有優異的化學，機械和熱穩定性。除此之外，氧化物金屬具有多種奈米結構和有應用的性能，適用於各種實際應用。此薄膜可以使用低成本和可放大的化學方法合成。此全疏膜的應用可以節省工廠的佔地面積和能源，並可提供較長的使用壽命。

競爭產品：

電容去離子化，逆滲透

專利現況：

本研究團隊具有數十年研究經驗

聯絡方式(請不用填)：

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ZnO/Glass fiber

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Experience: http://www.che.ntu.edu.tw/ntuche/cht/prof_detail.php?id=52

Market Needs:

The membrane technology has used in various fields, including purification, electronic, architectural and sportswear etc. However, people use the technology on water purification is still popular in current market. As we know, the main demand of membrane in the market is increase by the people requirement, high quality and high purity, and government also rule the stricter regulation.

Our Technology:

A facile approach was presented to fabricate omniphobic (OMNI) membranes for membrane distillation with a low surface tension feed.

Strength:

The use of glass fiber membranes for membrane distillation process becomes ideal candidates because of their superior chemical, mechanical and thermal stability, compared to the polymer membranes. Beside that, metal oxide is a unique material that possesses diverse nanostructures and useful properties for a wide variety of practical applications. It can be synthesized using low-cost and scalable chemical approaches with readily available raw materials. This omniphobic membrane can save footprint and energy and can provide a long service life.

Competing Products:

Capacitive deionization, Reverse osmosis

Intellectual Properties:

This team has decades of research experience

Contact (do not need to fill out):

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