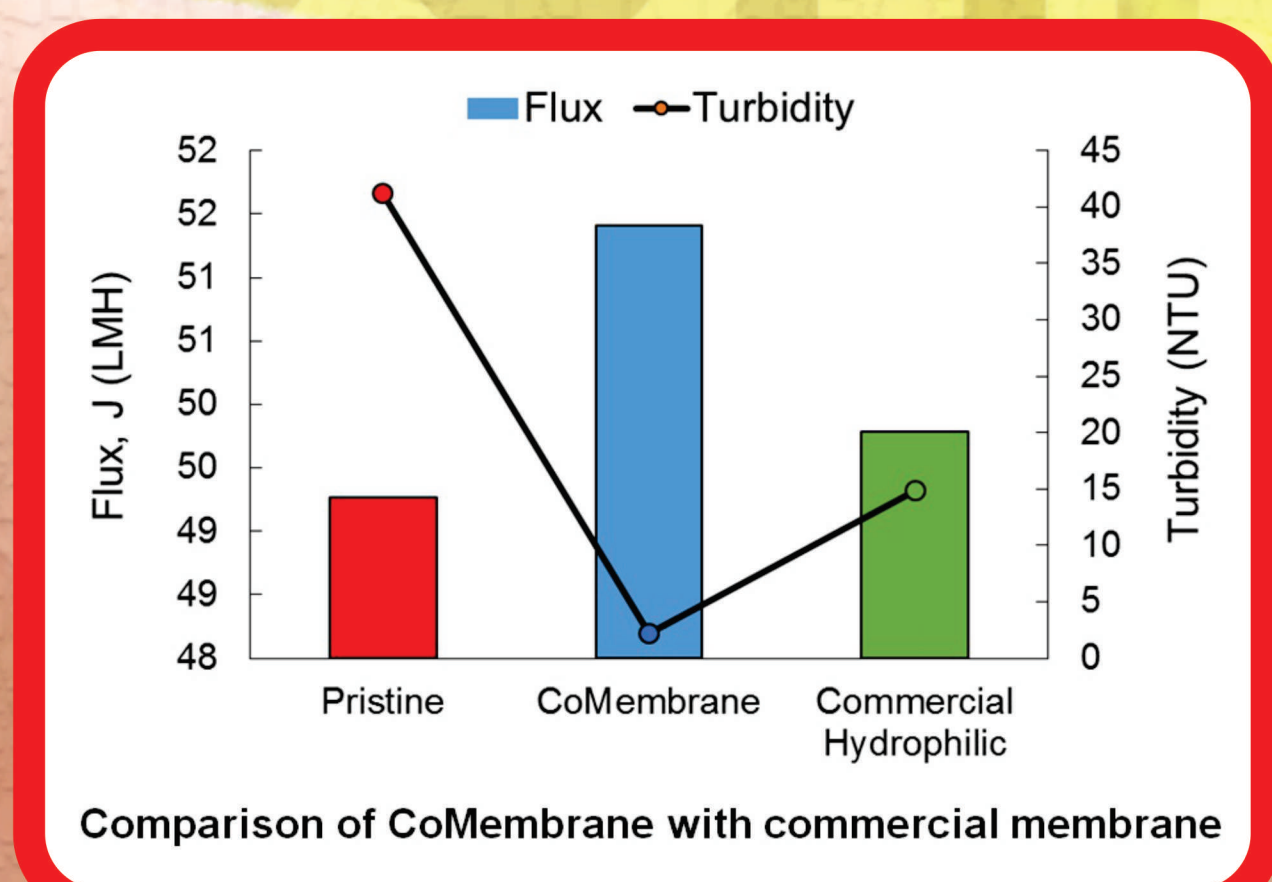
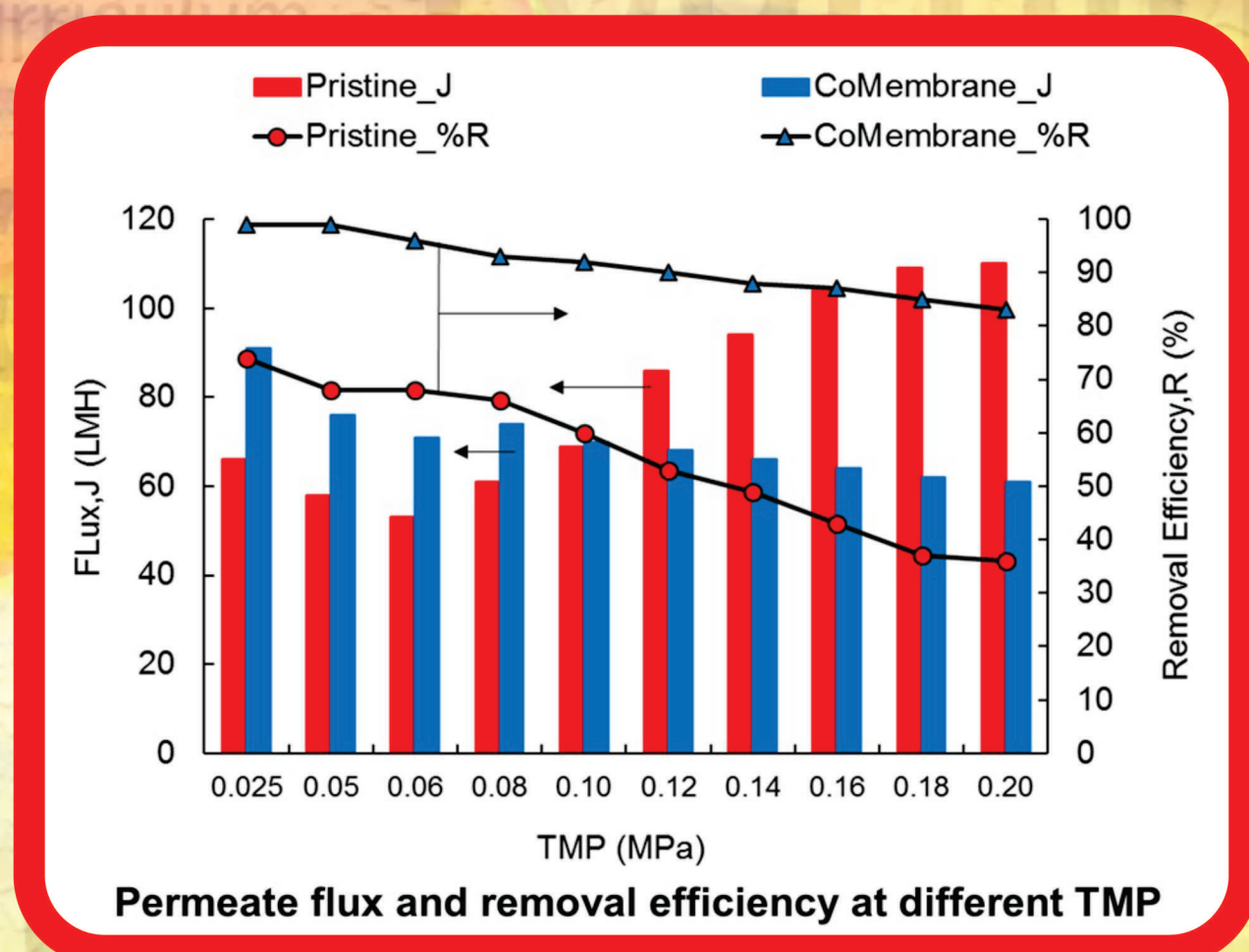
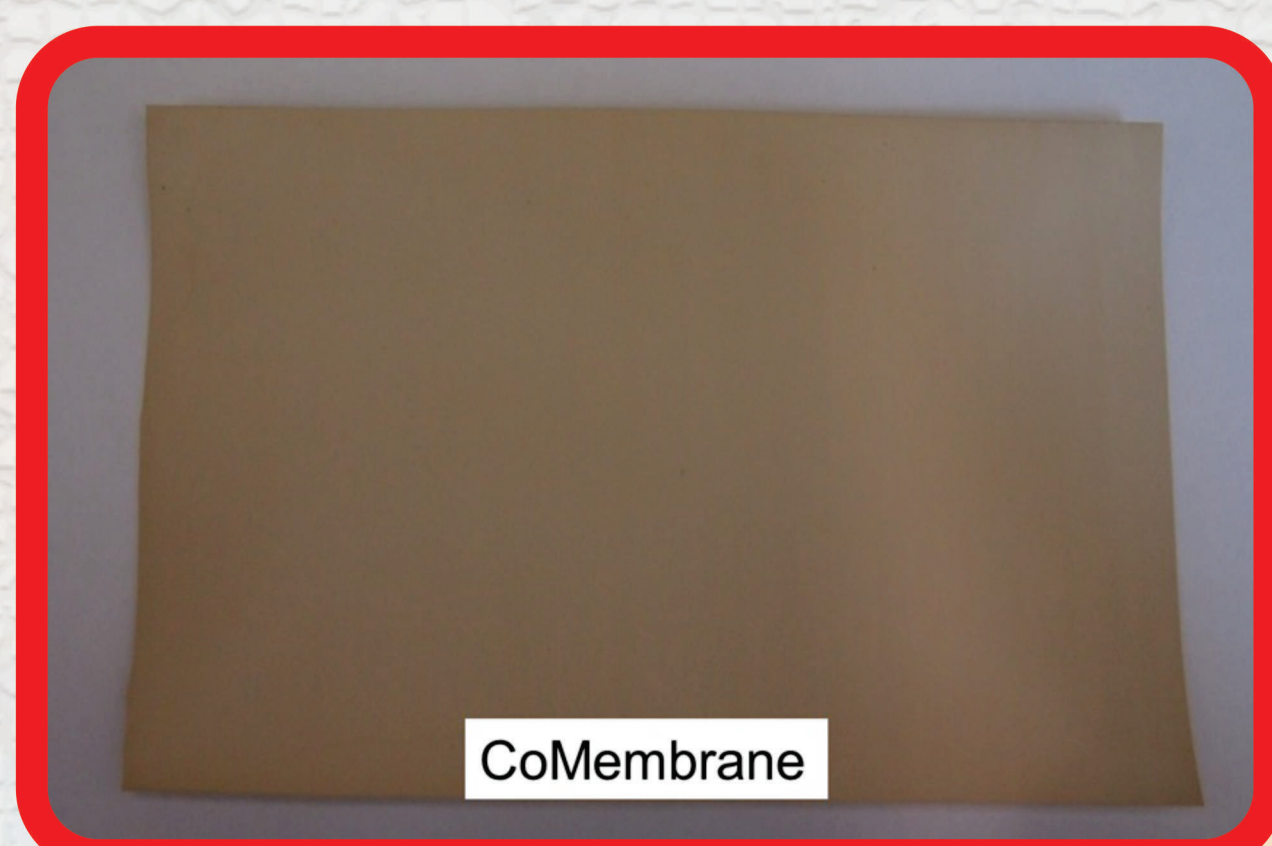
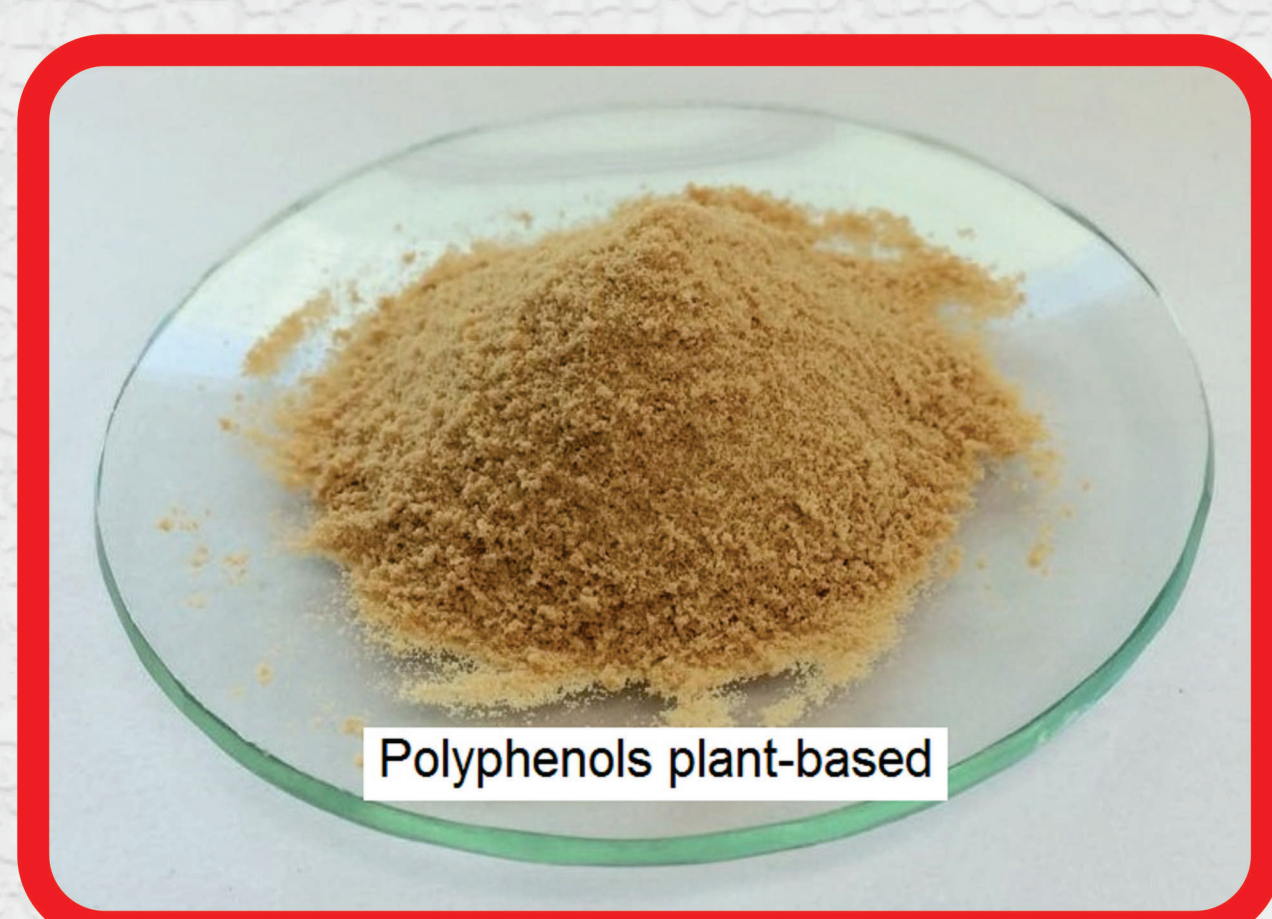




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CoMembrane: Nature-Inspired Coating of Membrane for Emulsion Oil Separation

▶ COPYRIGHT & PATENT APPLICATIONS
▶ PATENT SEARCH: NOVEL, INVENTIVE & INDUSTRIAL APPLICABLE



CoMembrane

- CoMembrane is an invention of the coating process inspired by mussel foot adhesives for modification of membrane surfaces material.

PROBLEM STATEMENTS

- Increasing of oil concentrations and stable emulsion droplets in effluent due to improper dumping will affect the environment and human health.
- The commercial organic polymers have the drawbacks of materials on the hydrophobicity properties which tends into severe fouling problems.
- The conventional modification methods are complex and involve high equipment cost.

INVENTIVENESS AND NOVELTY

- CoMembrane is formulated using the natural and low cost of polyphenolic derived from plants.
- CoMembrane provides hydrophilic and underwater oleophobic surface properties with low oil adhesion.

INTELLECTUAL PROPERTY STATUS

- Copyright and Patent applications.
- Patent Search: Novel, Inventive & Industrial Applicable.

USEFULNESS AND APPLICATION

- The process can be applied onto commercialize membrane or own fabricated membrane.
- The process can be implemented for any types of membrane modules.
- It has good chemical stability and high permeability with efficient removal of emulsion oil.

STATUS OF INVENTION

- Lab-Scale.

COMMERCIAL POTENTIAL

- The process can be applied without high-end equipment and no new equipment required for the existing plant.
- The facile and low cost process for membrane surface modification method.
- The results of CoMembrane comparable to commercial membrane product.

POTENTIAL PARTNERS

- Membrane fabricator industries and environmental service companies.

KNOWLEDGE MANAGEMENT

- This project is financially supported by E-Science Fund Grant (305/PJKIMIA/6013394).
- Outputs: Scientific Publications.

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