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## A smart membrane with antifouling capability and switchable oil wettability for high-efficiency oil/water emulsions separation

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Keywords: smart surfaces; oil/water emulsions separation; wettability; block copolymer; antifouling.

**ABSTRACT:** There are large amounts of oily wastewater produced by industrial production processes and daily life, and oily wastewater is one of the most widespread environmental issues. These effluents contain a large amount of emulsified oil/water mixtures. However, separation of stabilized oil/water emulsions is difficult and a global challenge. Oily wastewater is not only harmful to the environment but it also affects human health. Thus, development of materials that can effectively solve this

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