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Dopamine-induced biomimetic mineralization for *in situ* developing antifouling hybrid membrane

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Abstract

Membrane technology has raised significant interests over the past decade for sustainable water purification. Developing antifouling membranes are always the fundamental strategy to deal with the bottlenecks of ubiquitous membrane fouling. In this work, we provide a novel and facile strategy for developing antifouling hybrid membranes via dopamine-induced biomimetic mineralization of dopamine/TiO₂ hybrid nanoparticles (DA/TiO₂ HNPs) *in situ* within polyvinylidene fluoride membrane matrix. During biomimetic mineralization, dopamine, as the cationic inducer, favors the *in situ* hydrolysis/condensation of the titania precursor to form hybrid

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