PEES Power Systems

Double-glass component anti-fouling ability

Overview

This system combined a Cu 2 O–SiO 2 –acrylic resin primer for anchoring and controlled copper ion release with a dissipative double-network double-anchored hydrogel (DNDAH) boasting superior mechanical strength and anti-biofouling performance. Traditional anti-corrosion and anti-fouling coatings struggle against the harsh marine environment. Herein, a dual-repellent coating (PKF-SiO2) was fabricated through an epoxy ring-opening reaction in an aqueous.

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Innovative Acrylic Resin-Hydrogel Double-Layer Coating

A marine simulation experiment demonstrated exceptional stability and anti-fouling efficacy. This unique combination of features makes A-H DL a promising solution for diverse marine ...

Transparent Double-layered antifogging hydrogel coating with high

Transparent substrates are frequently employed in a wide range of optical applications, such as eyeglasses, displays, and sensors. While these substrates should have superior optical ...

Transparent Double-layered antifogging hydrogel coating with high

The resulting hydrophilic coating has outstanding antifogging, self-healing, and anti-fouling qualities due to the polymer's great hydration capacity.

Construction of a novel environmentally-friendly long-term antifouling

The static antifouling ability of DLCs was verified in this study, proving that the design of DLCs was feasible and effective. Therefore, the proposed DLCs design can be used to make ...

Advanced Functional Materials

As a response, research shifted focus toward a biocompatible alternative: polymer-based antifouling coatings. This has resulted in numerous advanced and innovative antifouling strategies, ...

Durable dual-repellent coatings with anti-fouling and anti-icing

These findings underscore the promising potential of the PKF-SiO2 coating for enhancing antifouling and self-cleaning protection in diverse elds, such as textiles and construction.

Antifouling Coatings from Glassy Polyelectrolyte Complex Films

In a major paradigm shift, this work describes glassy antifouling films made from certain complexes of positive and negative polyelectrolytes.

Synthesis of a novel anti-fog and high-transparent coating with high

In this study, KGM was combined with water-soluble silicone fluid to form a binder, and modified nanoparticle Ecokimera (ECO) was dispersed among them to prepare the super-hydrophilic ...

Improved Antifouling Ability for Double-Network

The superior corrosion resistance of Fe-based amorphous coatings makes them suitable for marine applications; however, they have a poor antifouling ability.

Durable dual-repellent coatings with anti-fouling and anti-icing

This coating demonstrates superior mechanical strength, antifouling properties, and self-cleaning capabilities.

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