TECHNOLOGY OFFER

NATURED-INSPIRED ANTIFOULING COMPOUND

Background

Biofouling is a burden to numerous industrial sectors. Moreover, it contributes to the emission of more greenhouse gases, due to an increase in the ship's weight caused by the organism-augmented drag friction.

Currently used anti-adhesion techniques imply toxic biocides (banned within the EU).

In addition to inhibiting the settlement of biofouling species without causing mortality, new antifouling agents should also be compatible with commercial marine coatings.

Technology

This invention relates to synthetic antifouling compounds, nature-inspired and eco-friendly - a solution to the underwater adhesion of certain organisms (bacteria, algae, invertebrates) on surfaces, which causes deterioration, systems clogging in boats and contamination.

The compound is non-toxic and water-soluble, it can be used in a composition that includes 0.1 to 10 wt.%. The composition can be incorporated into a polymeric formulation.

Without additive



2% GBA26

30% COPPER



Biofouling colonization of coated panels with marine polyurethane-based coatings after 30 weeks of immersion in the sea.

Advantages

- Nature-inspired, non toxic antifouling agent;
- Compatible with commercial marine coatings;
- Effective inhibition of biofouling.

PATENT STATUS

International Patent Application via PCT <u>WO2023053059</u> Priority date: 30.09.2021 Pending in Europe

DEVELOPMENT STAGE

TRL 5 – Technology validated in relevant environment

APPLICATIONS

Application in antifouling paints or varnishes composition for protecting underwater surfaces, in particular submerged in a marine environment.

COOPERATION

Licensing agreement; R&D partnership.

KEYWORDS

Antifouling Biofouling Copper-free coatings

DEVELOPED BY

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