TECHNOLOGY OFFER

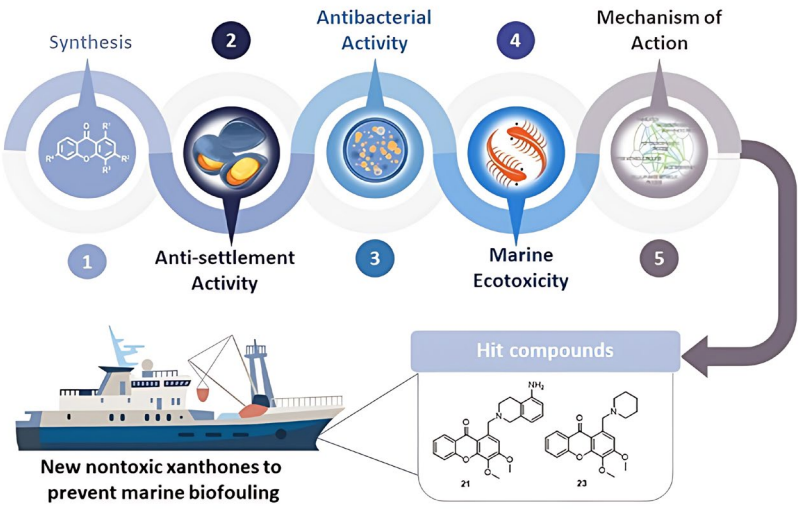
XANTHONIC COMPOUNDS AND THEIR USE AS ANTIFOULING AGENTS

Background

Biofouling is a severe concern to numerous industrial sectors with costly high maintenance. The maritime industry has an enormous economic burden due to the drag friction caused by adhesion. This results in the increase of the ship's weight which then leads to an increase in fuel consumption and, ultimately, more emission of greenhouse gases.
The currently used antifouling techniques imply toxic biocides (banned within the EU).

Technology

The solution herein relates to synthetic small molecules from an important class of heterocyclic derivatives and homologs – xanthonic compounds - and their use as antifouling agents for protection against marine biofouling.
These compounds are environmentally friendly and can reduce marine biofouling without inducing toxic effects to target and non-target species.



Advantages

- Natural and nature-inspired products with biodegradable properties;
- The compounds can be used per-se or incorporated with polymeric coating formulations;
- Strongly active on mussels.

PATENT STATUS

International Patent Application via PCT WO2020128674
Priority date: 17.12.2018
Granted in China and US
Pending in Europe

DEVELOPMENT STAGE

TRL4 – Technology validated in lab
Further development for validation in large scale setups required.

APPLICATIONS

Antifouling additive for surfaces submerged in water, including vessels.

COOPERATION

Licensing agreement;
Product development and marketability;
R&D partnership for further validation in real environment setups.

KEYWORDS

Antifouling
Biocides
Natural Products

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