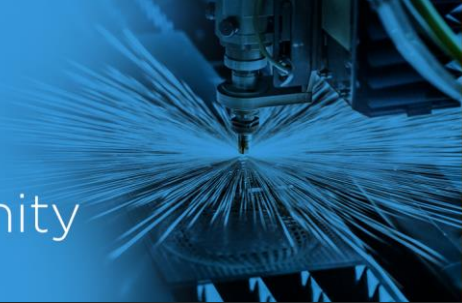




NovaUCD

Technology Licensing Opportunity



Enzbeads

ENZYME-FUNCTIONALISED NANOBEADS FOR ANTI-BIOFOULING PURPOSES



Opportunity

Biofouling is a significant operational problem in the oil, food, pharmaceutical industries and medical device sector. Adhesion of bacteria to surfaces and subsequent proliferation and extracellular polymeric substance (EPS) production lead to the formation of surface associated bacterial communities called biofilms.

The amelioration of biofouling in industrial processing equipment is critical for performance and reliability. While conventional biocides are effective in biofouling control, they are potentially hazardous to the environment and in some cases corrosive to materials. Enzymatic approaches have been shown to be effective and can overcome the disadvantages of traditional biocides, however enzymes are typically uneconomic for routine biofouling control.

Technology Overview

Functionalized nanobeads presents a new family of non-corrosive and environmentally friendly anti-biofilm and antifouling agents.

Key Features/Advantages:

Researchers in UCD have designed a robust and reusable enzyme-functionalized nano-bead system which has strong biofilm dispersion properties and provide a cost effective, environmentally friendly solution to biofilm removal.

Value Proposition:

Enzyme-functionalized nanobeads as an environmentally friendly and cost effective alternative to pure enzyme and chemical treatments for biofilm removal.

Markets:

Water Treatment companies

Lead Inventors:

Professor Eoin Casey

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Contact:

Hugh Hayden
Knowledge Transfer
t: + 353 1 716 3725
e: Hugh.hayden@ucd.ie

FUNDERS:

