ISTITUTO ITALIANO
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TITLE

A film forming fluorous protein

INVENTORS

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DESCRIPTION

The CNST center in Milan, has developed a fluorous protein showing excellent film-forming properties at the water/fluorous interphase. This protein combines the outstanding surface activity of fluorosurfactants with the unique film-forming properties of hydrophobins, which have been reported to be the only proteins able to form elastic films, and therefore specially effective in stabilizing both foams and emulsions.

APPLICATIONS

Droplet microfluidics, where droplet stabilization is a critical issue, as the extremely low affinity between water and fluorous oils leads to droplet coalescence.
Artificial blood formulations, that are typically perfluorocarbon/water emulsions, where the fluorinated phase acts as an oxygen carrier and where droplet stabilization is one of the crucial aspects.
Fire-fighting foams, where proteic and fluorous components covalently linked may display superior properties.

KEYWORDS

fluorous protein, microfluidic, artificial blood, fire-fighting foams

BIBLIOGRAPHIC DATA TO2011A001094

Proteina fluorurata e suoi impieghi	
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