

CLIB²⁰²¹ Project:

Adhesive peptides

Description:

The project aims, in connection with the respective project of Henkel AG & Co. KGa in Düsseldorf Germany, at the commercial production of highly functional peptides with adhesive properties on defined surfaces.

Innovative and alternative gluing concepts shall be realized, allowing for new material properties on technical surfaces, such as household, construction, automotive and aerodynamics, electro, steel and packing industry.

Industrial biotechnology shall be applied in market segments so far exclusively occupied by petrochemical industry.

The scientific focus in this part of the project is on the development of an expression system and of a production process for adhesive peptides.

Optimization of expression includes complex tasks, such as broadening of secretory bottlenecks, the development of concatemers and the coexpression of chaperones. In the production process the separation of protein expression and initialization of gluing property can be necessary.

One possibility can be the secretory production of "poly-oligopeptides" with less pronounced adhesive properties. These substances could then be activated into adhesive peptides by specific proteases.

period of project:

2009 - 2012

Funding Agency:

BMBF (BioIndustrie2021)

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