RESEARCHPROJECT

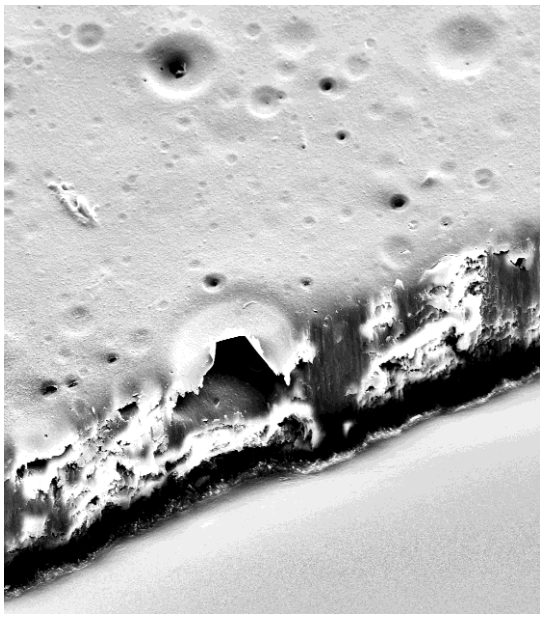
Institute
Life Technologies

Edible Coatings for Improvement of the Shelf Life of Food

Partner(s) HES-SO VS

Collaborator(s) Katja Morgenstern-Freitag, Michael Beyrer

Description During the last years more efforts have been done to develop packaging materials from renewable and biodegradable raw materials. The aim of this project was to optimize the morphology and thus functionality of edible coatings by diversifying the emulsion properties and improving a spraying technology for application of the emulsions on food surfaces. Coatings were produced on the basis of hydroxy-propyl-methyl-cellulose and sorbitan monostearat. Emulsions were prepared by high-pressure homogenisation and / or ultrasonic treatment and applied at different temperatures and pressures on glassware, agar-agar gels or food surfaces. After drying coatings were characterized by parameters such as tensile strength and water vapour permeability. The performance of coatings varied as a function of composition of emulsions and can be significantly improved by an optimized homogenisation technology.



Section of an edible coating (SEM)

URL http://itv.hevs.ch

Contact Michael Beyrer, PhD
michael.beyrer@hevs.ch
T +41 27 606 86 54