

DOKTORSKÝ STUDIJNÍ PROGRAM/*DOCTORAL STUDY PROGRAM*

VYPSÁNÍ TÉMATU/*LISTING OF TOPIC*

Studijní program/*Study Program*: **Nutrition and Food**

Studijní obor/*Branch of Study*: **program without field**

Katedra/*Department of*: **Center DRIFT-FOOD**

Školitel, email/*Supervisor, email*: **Ing. Iveta Klojdová, Ph.D., klojdova@af.czu.cz**

Konzultant, email/*Co-supervisor, email*:

Forma studia/*Form of Study*: **Full_time**

Typ tématu/*Type of Theme*: **framework**

Téma/Topic: Smart Packaging with the Use of Essential Oils

Hypotézy/Hypotheses: Essential Oils are materials with high bioactive value and they can act as natural preservatives. The main disadvantage of essential oils is their volatility, sensitivity to high temperature, etc. The bioactivity of essential oils can be ensured by their incorporation (encapsulation) in advanced complex structures such as edible films, particles, etc.

Anotace/Summary:

Nowadays, there is a trend to preserve products with the use of natural preservatives. Essential oils are valuable materials that can act as natural preservatives. However, their use in the preservation of food products and materials is limited because of their instability. An effective approach to ensure their bioactivity and protection is to incorporate (encapsulate) them within complex structures such as emulsions, edible films, particles, etc. So prepared structures can be used e.g. as smart packaging.

Zdroje financování práce/*Funding Sources*: European Union's Horizon 2020 Research and Innovation Program under grant agreement No. 952594 (ERA Chair project DRIFT-FOOD)

V/In Prague

dne/Date: 31.10.2023

Podpis školitele/*Signature of the Supervisor*:

Podpis konzultanta/ *Signature of the Co-supervisor*:

Podpis vedoucího katedry/*Signature of the Head of the Department*: