

Obrazac odobrenog projekta

Naziv projekta:	<p>HR: Praćenje utjecaja ekstruzije na udio hidroksimetilfurfurala i akrilamida u snack proizvodima s dodatkom nusproizvoda prehrambene industrije</p> <p>ENG: Influence of extrusion on HMF and acrylamide content in snack products with added food industry by-products</p>
Sažetak projekta	<p>HR: Hidroksimetilfurfural (HMF) i akrilamid u hrani nastaju Maillardovim reakcijama tijekom obrade namirnica bogatim ugljikohidratima i proteinima pri visokim temperaturama. Novija istraživanja pokazala su da oba spoja imaju potencijalno karcinogeno djelovanje. Cilj ovog istraživanja je ispitati utjecaj ekstruzije na prisutnost HMF-a i akrilamida u snack proizvodima s dodatkom nus-proizvoda prehrambene industrije, a nastavlja se na istraživanja iz projekta "Upotreba nusproizvoda prehrambene industrije u proizvodnji obogaćenih i funkcionalnih ekstrudiranih proizvoda i poluproizvoda". Istraživanja će obuhvatiti razvoj metoda na LC/MS/MS uređaju i analizu preko 20 uzoraka, a rezultati će dati uvid u nastanak štetnih spojeva tijekom ekstruzije i dati smjernice za sprječavanje njihovog nastajanja i proizvodnju sigurnih proizvoda.</p> <p>ENG: HMF and acrylamide in food are formed in Maillard reactions during thermal treatment of carbohydrate- and protein rich foods. Recent researches have shown that both compounds have potential carcinogenic activity. The aim of this research is to examine influence of extrusion on HMF and acrylamide formation in snack products with added food industry by-products. This is continuation of research conducted within project „Development of enriched and functional extruded products and flours through application of food industry by-products“. The research activities will include development of LC/MS/MS methods for qualitative and quantitative determination of HMF and acrylamide, over 20 samples will be analysed, and results will give insight into development of harmful compounds during extrusion and directions for their reduction will and production of safe products will be given.</p>
Voditelj projekta:	Doc. dr. sc. Đurđica Ačkar
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Razdoblje realizacije projekta	2015 – 2016. g.