**MH P 4**

## Procena antikancerogene aktivnosti novih organokalaj(IV) jedinjenja koja sadrže derivate 2-propanske kiseline

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Dva nova organokalaj(IV) jedinjenja, koja sadrže derivate 2-propanske kiseline, sintetisana su i okarakterisana pomoću standardnih spektroskopskih metoda. *In vitro* antiproliferativna aktivnost ovih jedinjenja ispitana je prema četiri tumorske ćelijske linije: PC3 (prostata), HT-29 (debelo crevo), MCF-7 (dojka) i HepG2 (jetra) pomoću MTT and CV testova. Rezultati ispitivanja ukazuju da sintetisana jedinjenja ispoljavaju izvanrednu antikancerogenu aktivnost prema svim ispitanim ćelijskim linijama i njihova aktivnost je od 54 do 113 puta veća od aktivnosti referentne supstance, cisplatine. Dobijeni rezultati ukazuju na neophodnost daljih *in vitro*/*in vivo* istraživanja sa ciljem ispitivanja mehanizma delovanja ovih potencijalnih antitumorskih agenasa.

## The anticancer activity evaluation of novel organotin(IV) compunds containing 2-propanoic acid derivatives

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Two novel organotin(IV) compounds containing 2-propanoic acid derivatives were synthesized and characterized by standard spectroscopic methods. *In vitro* antiproliferative activity of these complexes was investigated *versus* four tumor cell lines: PC3 (prostate), HT-29 (colon), MCF-7 (breast) and HepG2 (hepatic) using MTT and CV assays. The results have shown that that synthesized complexes exhibit remarkable anticancer activity toward all tested cell lines with 54 to 113 fold higher activity than the reference compound cisplatin. The obtained promising results indicate the necessity for further *in vitro*/*in vivo* research with the aim to investigate the mechanism of action of these potencial antitumor agents.

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