OH P 6

Antioksidantna aktivnost i akutna toksičnost novih nesimetričnih azina sa kumarinskim i još jednim heterocikličnim jezgrom

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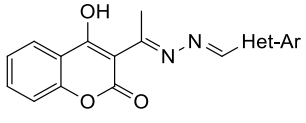
Do sada smo pripremili seriju mešovitih azina kumarina i različitih benzaldehida i ispitivali njihovu akutnu toksičnost i antioksidantnu aktivnost. Zbog činjenice da heterociklična jedinjenja sa sumporom i azotom poseduju širok spektar bioloških aktivnosti, u nastavku našeg rada, osmislili smo, sintetisali i potpuno spektralno okarakterisali niz novih mešovitih azina polazeći od 3-acetil-4-hidroksikumarina i različitih heteroaromatičnih aldehida. Sintetisanim jedinjenjima ispitana je antioksidantna aktivnost i akutna toksičnost na modelu slanovodnih račića *Artemia salina*. Najveću antioksidantnu aktivnost poseduje azin sa pirolskim supstituentom, dok je najmanja aktivnost uočena kod derivata indola. Najveća toksičnost uočena je kod derivata tiofena, dok izohinolin-kumarinski mešoviti azin pokazuje najmanju toksičnost.



Antioxidant activity and acute toxicity of new unsymmetrical azines containing coumarin and one more heterocyclic moieties

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During our previous work, we prepared a series of mixed azines with a coumarin moiety and different benzaldehydes, and tested their acute toxicity and antioxidant activity. Since heterocyclic compounds possess a broad range of biological activities, in the continuation of our work, we designed, synthesized and fully spectrally characterized a series of new mixed azines starting from 3-acetyl-4-hydroxycoumarin and different heteroaromatic aldehydes. The synthesized compounds were evaluated for their antioxidant activities and the acute toxicity in the brine shrimp *Artemia salina* model. Pyrrole-containing azine showed the higest antioxidant activity, while the lowest activity was noted for the indole derivative. The highest toxicity rate was observed for the thiophene derivate, while the isoquinoline-coumarin mixed azine was shown to be the least toxic.

Acknowledgement: This work was funded by the Ministry of Education, Science and Technological Development of Serbia (Projects No. 172061 and 45022).