

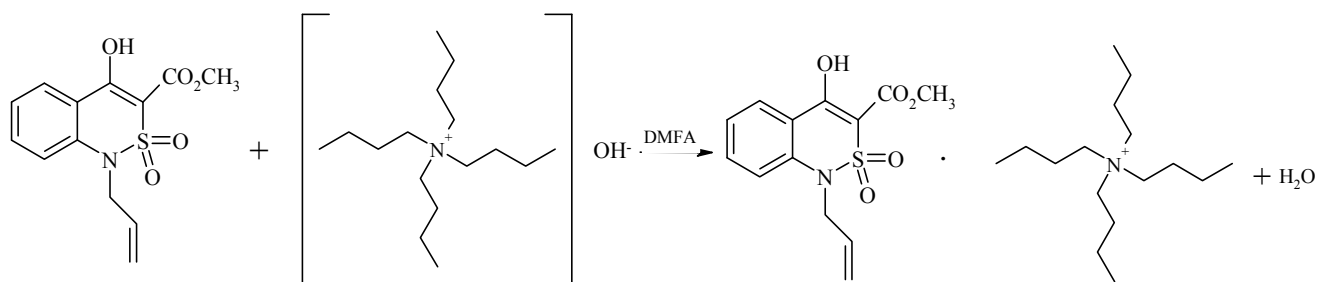
DEVELOPMENT OF THE NON-AQUEOUS ALKALIMETRIC METHOD OF THE QUANTIFICATION OF METHYL 1-ALLYL-4-HYDROXY- 2,2-DIOXO-1H-2λ⁶,1-BENZOTHAZINE-3-CARBOXYLATE

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Pains of various origin and pain syndromes occur so often as it is difficult to find a person among the world population that does not know this feeling. Hence it is not surprising that pain-killers are among the most popular and often used drugs. The drug arsenal of this pharmacological group that is available in modern medicine is exceedingly wide. However, even under such conditions the appropriate pain relief is not always successful. That is why to create new high-performance and low-toxic medicines that have analgesic activity range of 1-R-4-hydroxy-2,2-dioxo-1H-2λ⁶,1-benzothiazine-3-carboxylates was synthesized. The highest analgesic activity among the obtained substances methyl 1-allyl-4-hydroxy-2,2-dioxo-1H-2λ⁶,1-benzothiazine-3-carboxylate revealed, the analgesic effect of which (+71.1%) exceeded that of all the reference compounds (piroxicam, diclofenac and ketorolac) used in the experiment. Therefore one of the important tasks of our study was to develop a method for the quantitative determination of the most active compound. Based on the chemical properties of the obtained compound we have chosen the method of non-aqueous alkalimetric titration.



Titration was carried out in a non-aqueous solvent medium of dimethylformamide (DMFA), universal organic solvent. As a titrant tetrabutylammonium hydroxide in 2-propanol was used, the endpoint is determined potentiometrically.

The results were subjected to quantitative determination of the statistical processing. The sample can be called reliable if options included in it are not burdened blunder.