

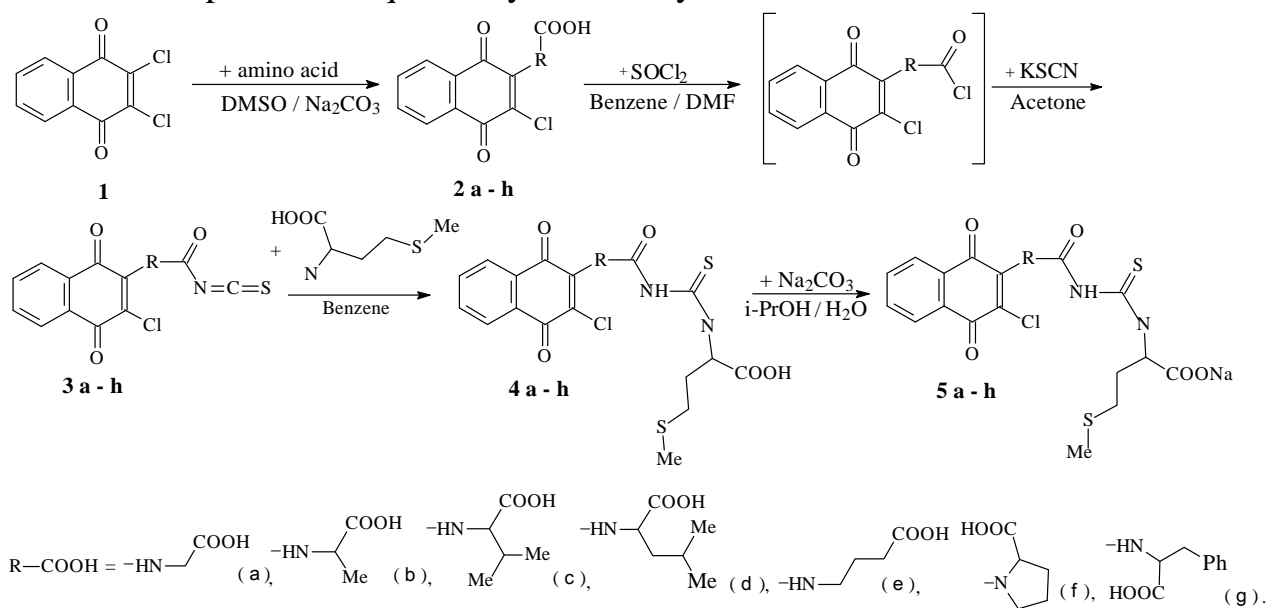
SYNTHESIS AND PROPERTIES OF THIOUREAS BASED ON AMINO ACID DERIVATIVES OF 1,4-NAPHTHOQUINONE

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Substances that are contained in its chemical composition thiourea group usually have potent antitumor, antifungal, antimicrobial action against parasitic microflora of the gastrointestinal tract. Amino acids and their derivatives are natural compounds which are used in medical practice and effective at treating of wide range of diseases and pathological states.

Our acylisothiocyanates of amino acid derivatives of 1,4-naphthoquinone were obtained by two-stage synthesis. Unstable intermediate was obtained during interaction of amino acid derivatives of 1,4-naphthoquinone 2 (a - h) with thionyl chloride without selecting which was added a acetone solution of potassium thiocyanate to the reaction mixture. After the solvent was evaporated the synthesis of compounds 4 (a - h) in alcohol was carried out. To improve the solubility of the obtained compounds in aqueous systems, they were transferred into sodium salt.



Structure and identity of all obtained compounds was confirmed physical-chemical analysis and spectral data NMR, IR, the reaction progress was monitored - by TLC.

For the synthesized compounds was carried out computerized screening prediction of biological activity by using program PASS. According to the results obtained compounds can exhibit: antiviral, antibacterial, antitumor and anticoagulant activity.