

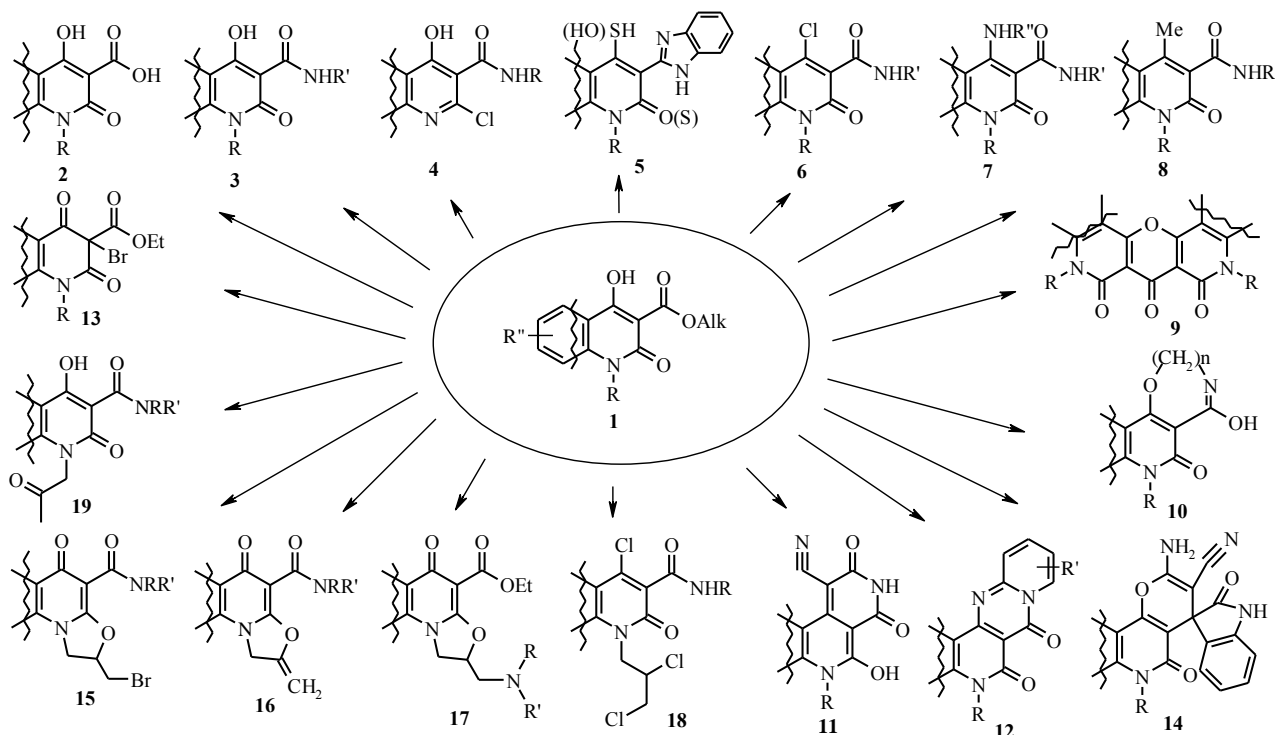
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The Use of Synthetic Potential of Alkyl 4-hydroxy-2-oxo-1,2-dihydroquinoline-3-carboxylates in Searching New Biologically Active Substances

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Having practically unlimited possibilities for chemical modifications alkyl 4-hydroxy-2-oxo-1,2-dihydroquinoline-3-carboxylates (**1**) are of particular interest as the base for the synthesis of a wide variety of biologically active products. A comprehensive study on the reactivity, structure and pharmacological properties of these compounds and their derivatives has been conducted.



Moreover, the possibility of modifying the ester fragment (acids **2** and amides **3**), 2-carbonyl (compounds **4** and **5**), 4-OH-group (chlorine, merkapto-, amino- and methyl derivatives **5-8**), simultaneously 4-OH- and ester groups (heterocycles **9-12**), as well as position 3 (quinolones **13-14**) has been shown. The effective halocyclization of 1-N-allyl derivatives into oxazolo[3,2-a]-quinolines **15-17**, which can be transformed in both dichloropropyl or acetonyl substituted quinolines **18-19**, is of particular interest.

The substances obtained exhibit the high analgesic, anticoagulant, anti-inflammatory, antimicrobial, diuretic, antituberculous antithyroid, antioxidant, antihypoxic and local anesthetic activities, as well as the ability to block opioid receptors.