

This thesis was focused on enrichment of yet known findings in the area of aza-annulations for doubled azaannulation, which was coming up from ethyl 3-alkoxy-2-oxocyclohexancarboxylates ethyl 4-alkoxy-2-alkyl-3-oxopentanoates. Decahydrophenanthroline derivatives and appropriate spiro compounds should be prepared by this method in cyclic and acyclic row of reactions, respectively. Aza-annulations, their advantages, ways of realization and their usage in preparation of important chemical substances mainly from the area of alkaloids are complexly described in the text. Furthermore, tried methods of preparation of starting materials in cyclic and acyclic row of reactions, following preparations of enamines as well as proper aza-annulations, different arrangement of reaction conditions in an effort to get better yields of these reactions, and all the results are there also discussed in detail.