THE ALKYLATION OF 3-DICARBONYL COMPOUNDS BY 1,4-DICHLORBUTANE

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3-dicarbonyl compounds widely apply in organic synthesis as perspective syntones like approchable bifunctional reagents. Because of presence the reactive carbonyl groups and also mobile \( \forall \)-atoms of hydrogen the reactions with these compounds pass with participation of both reactive centers, that show their big potential which can be used for obtaining various useful products. Such ability of 3-dicarbonyl compounds form the basis of classic method of obtaining 1,2-azoles and barbituric asids. With the changing of character of 3-dicarbonyl compound, nature of alkylation reagent and superbase was observed the changing of direction of reaction.

It has been realized the reaction of 1,4-dichlorbutane with acetylacetone and acetylacetic ether in \( K_2 CO_3 \)-DMSO system for the invesitgations of reaction of alkylation 3-dicarbonyl compounds. It has been established, that during the reaction of alkylation acetylasetone by 1,4-dichlorbutane in \( K_2 CO_3 \)-DMSO system took place C,C-cyclo-, C,C- and C,O-alkylation with obtaining 1,1-diacetylcyclopentan(1); 1,9-dichlor-5-acetylnonane(2); 3,9-dichlor-4-metyl-5-oxa-2-nonane(3); 9-chlor-4-metyl-5-oxa-3-nonene-2-on(4).

The reaction of acetylacetic ether with 1,4-dichlorbutane passed in direction of C,C-cyclo and C,O-alkylation with obtaining 1-acetyl-1-ethoxycarbonylcyclopenton (5) and ethyl ether of 8- chlor-3- methyl-4-oxa-2-okten asid(6).

The present investigations confirmed once more that the direction of alkylation of 3-dicarbonyl compounds by 1,4-dichlorbutane in \( K_2 CO_3 \)-DMSO system depended on the nature of initial 3-dicarbonyl derivative.