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α-KETOSULFONES

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a-KETOSULFONES

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Since the turn of the last century a great many attempts have been made to synthesize the interesting class of a-ketosulfones, the connecting links between the known a-diketones and a-disulfones. The first publications indicating successful syntheses proved to be science fiction only. The cyclic sulfonyl carbamates synthesized by R.J.Gaul and W.J.Fremuth in 1961 are the first compounds with authentic a-oxosulfonyl structure. Later on, open-chained sulfonyl carbamates I as well as the corresponding sulfonyl thioformates II have been synthesized by A.Senning and co-workers; the related sulfonyl formates III could be synthesized recently by D.H.R.Barton and co-workers as well as by G.Ferdinand and K.Schank using two entirely different routes

In all these cases the reactivity of the carbonyl group is decreased by mesomerism due to the free electron pair of the adjacent heteroatom. Real α -ketosulfones lack this stabilizing effect and, therefore, should be essentially more reactive. Nevertheless, we are able to report on two independent successful syntheses which yielded us the wanted class of α -ketosulfones:

1) $X=N_2$ 2) $X=CHOCH_3$

In both cases an ozonolytic cleavage of an appropriate double

bond system was used. The a-ketosulfones thus obtained have been characterized by elemental analyses, spectroscopy and reactions. Characteristic details about this new class of compounds will be reported.