Polarized ketene dithioacetals, which can be easily prepared from a wide variety of active methylene compounds have been extensively explored in this laboratory for the development of new synthetic methods for a variety of heterocyclic and carbocyclic compounds. The work described in this thesis has been carried out as a part of this ongoing research programme and highlights new transformations of oxoketene dithioacetals.

The first chapter gives an account of some of the recent transformations of oxoketene dithioacetals reported from this laboratory. The second chapter deals with a new general method for aromatic annelation by the reaction of \( \alpha \)-oxoketene dithioacetals with benzyl-, 1-naphthylmethyl- and 2-naphthylmethylmagnesium halides, followed by cycloaromatization of the resulting carbinolacetal. In the third chapter of the thesis, synthesis of substituted and fused quinolizinium compounds via cycloaromatization of \( \alpha \)-oxoketene dithioacetals with 2-picollyllithium has been described. 1,3-Anionic cycloadditions of 1,3-diphenyl-2-azaallyl and ethyl (benzyldieneamino)acetate anions with \( \alpha \)-oxoketene dithioacetals have been described in chapter IV. The last chapter of the thesis deals with studies on the additions of Grignard reagents and metal hydrides to oxoketene N,S-acetals.