

SYNTHESES AND REACTIONS OF THIOXANTHENESULFILIMINES

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The physical and chemical properties of thioxanthenesulfilimines have been compared with those of the corresponding sulfoxides. 10-Aminothioxanthenium salts were synthesized by reaction of thioxanthenes with O-mesitylenesulfonylhydroxylamine. Treatment of 10-aminothioxanthenium salt with base gave dithioxanthylsulfilimine, whereas similar treatment of 10-amino-9-methylthioxanthenium salt gave expected free sulfilimine. Thioxanthene N-tosylsulfilimines were obtained in variable yields by reaction of thioxanthenes with chloramine-T in the presence of a small amount of acetic acid. Thioxanthene N-tosylsulfilimine and its 9-methyl derivative readily rearranged upon base (or acid in the case of the former) treatment to the corresponding 9-tosylaminothioxanthenes.