**Synthesis of disulfide compounds *via* nucleophilic attack of diethylamine at β- carbonyl carbon of thioisatin**

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**Abstract**

Disulfide compounds/bonds are present in numerous proteins and in cells. The disulfide bonds are conveniently reduced as a result of the high gluthathione levels, thus releasing the active compound as well as in the form of bisalkyl- and bisaryl-disulfides. It can be used as a eye drop in which it serves as an antibacterial and antifungal preservative. Disulfide compounds are synthesized by the treatment of thioisatin with diethylamine at 80°c for 3 hours in nonpolar dry toluene and kept at room temperature in open environment for one night. Nucleophilic attack of diethylamine at β-carbonyl carbon of thioisatin results in the ring opening to generate an intermediate thiophenol which upon air oxidationleads to the formation of rectangular shaped crystal of symmetrical disulfide compounds in high yield (72-75%) and purity. Structure has been assigned by spectral, physical and crystal data.



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