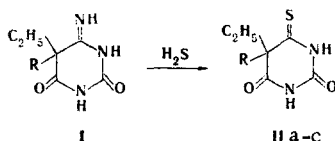


4-THIOBARBITURIC ACIDS

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We have found that the corresponding 4-thiobarbituric acids (II) are formed in good yields in the reaction of 5,5-disubstituted 4-iminobarbituric acids (I) with H_2S in the presence of bases (piperidine, pyridine, and morpholine).



The reaction was carried out by prolonged bubbling of H_2S into a refluxing solution of acids I in an organic base. This method was used to obtain IIa ($R = C_2H_5$) with mp $193-194^\circ$ (aqueous alcohol), IIb ($R = C_3H_7$) with mp $141-142^\circ$ (aqueous 2-propanol), and IIc ($R = C_6H_5$) with mp $218-220^\circ$ (aqueous 2-propanol). The individuality of the compounds was monitored by means of thin-layer chromatography on silica gel, and their structures were confirmed by the results of elementary analysis and the IR and mass spectra.

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