

Interaction of certain α -dicarbonyl compounds with ethanedithiol and steric structure of the products formed

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Abstract

1. 1-Phenylpropane-1,2-dione gives a bis-1,3-dithiolane derivative in the reaction with 1,2-ethanedithiol, analogously to glyoxal and phenylglyoxal. Diacetyl and benzil give the corresponding monomercaptals. 2. 1-Phenylpropane-1,2-dione is reduced in the reaction with 1,2-ethanedithiol, forming 2-ethyl-2-phenyl-1,3-dithiolane. 3. Bis-1,3-dithiolane derivatives of 1-phenylpropane-1,2-dione, glyoxal, and phenylglyoxal exist in the gauche-form; 2-keto-1,3-dithiolanes from diacetyl and benzil have shielded structures with predominance of the S-conformer. © 1974 Consultants Bureau.

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