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Reaction of 3,3-dichloropentane-2,4-dione with aromatic aldehydes under the conditions of Darzens reaction

Mamedov V., Berdnikov E., Litvinov I., Kuz'mina L.
Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

3,3-Dichloropentane-2,4-dione reacts with aromatic aldehydes under the conditions of Darzens reaction to give 4-acetoxy-4-aryl-3,3-dichlorobutan-2-ones, the products of insertion into the σ -C-C bond. The reaction of ethyl dichloroacetylacetate with benzaldehyde yields a derivative of tricyclo[5.1.0.0^{3,5}]octane, rather than 2,6-bis(1'-chlorobenzylidene)cyclohexane-1,4-dione, as the by-product. © 1995, Plenum Publishing Corporation. All rights reserved.

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Keywords

3,3-dichloropentane-2,4-dione, Darzens reaction, insertion reaction, 3,3-dichlorobutan-2-one, cyclohexane-1,4-dione, tricyclooctane, X-ray structural investigation