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ABSTRACT

α -Iodomethyl phenyl sulfoxides are useful intermediates for the synthesis of α -iodomethyl ketones and vinyl iodides. The reaction of lithioiodomethyl phenyl sulfoxide with aldehydes gave the corresponding β -hydroxy- α -iodo phenyl sulfoxides. Pyrolysis of these compounds gave the α -iodomethyl ketones.

The alkylation of lithioiodomethyl phenyl sulfoxide with alkyl halides gave 1-iodoalkyl phenyl sulfoxides. Pyrolysis of these compounds in the presence of hydroquinone gave the corresponding vinyl iodides with one-carbon homologation in good yield.

The α -dichloro- β -hydroxy phenyl sulfoxides could be synthesized in good yield by the reaction of lithiodichloromethyl phenyl sulfoxide with carbonyl compounds. The rearrangement of these dichlorohydroxy compounds were studied in order to prepare the α,β -unsaturated carbonyl compounds. Various methods were tried, but all of them failed to give the expected products.