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Reactions of dichlorocarbene and arenesulfonyl chlorides with 3,4-epoxy-1-butene and vinyl ethylene carbonate

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Abstract

Reaction of 3,4-epoxy-1-butene with dichlorocarbene is accompanied by deoxygenation and yields a mixture of 1,1-dichloro-2-vinylcyclopropane, 2,2,2',2'-tetrachlorobicyclopropyl, and 2,2-dichlorocyclopropyloxirane. Arenesulfonyl chlorides react with 3,4-epoxy-1-butene to afford both Markownikoff and anti-Markownikoff addition products, whereas vinyl ethylene carbonate gives rise exclusively to the anti-Markownikoff adducts.

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