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Cobalt-Catalyzed Regioselective Dehydrohalogenation of Alkyl Halides with Dimethylphenylsilylmethylmagnesium Chloride

Dehydrohalogenation of Alkyl Halides with Complementary Regioselectivity

Significance: This new Co-catalyzed dehydrohalogenation proceeds with excellent regioselectivity and mostly with good stereoselectivity. The Co-catalyzed dehydrohalogenation offers a complementary access to the introduction of double bonds, since it allows the formation of regioisomers that are not accessible via usual base-mediated elimination.

Comment: This method allows a novel, easy introduction of double bonds via dehydrohalogenation. The fact that regioisomers are obtained, which are different from those obtained with the common base-mediated elimination, makes it an important complementary synthetic tool.

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