

CHAPTER OVERVIEW

24: Redox Couples

The previous four chapters describe electron-transfer reactions between carbohydrate derivatives and transition-metal ions. Some ions [chromium(II), samarium(II), and titanium(III)] are electron donors and others [cobalt(III), cerium(IV), manganese(III), and mercury(II)] are electron acceptors. Another form in which a transition-metal ion can participate in a radical reaction is as a part of a redox couple. (A redox couple is a combination of a transition metal and an ion from a different transition metal that act together in donating electrons to organic compounds.) Redox couples promote the addition of halogenated carbohydrates to electron-deficient double bonds, and they participate in the conversion of glycosyl halides into glycals and simple reduction products.

Topic hierarchy

[II. Electron Transfer from a Redox Couple](#)

[III. Reactions with Redox Couples](#)

[IV. Reaction Mechanism](#)

[V. Summary](#)

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