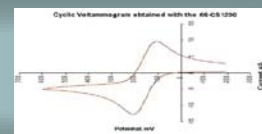


Analytical Electrochemistry: The Basic Concepts

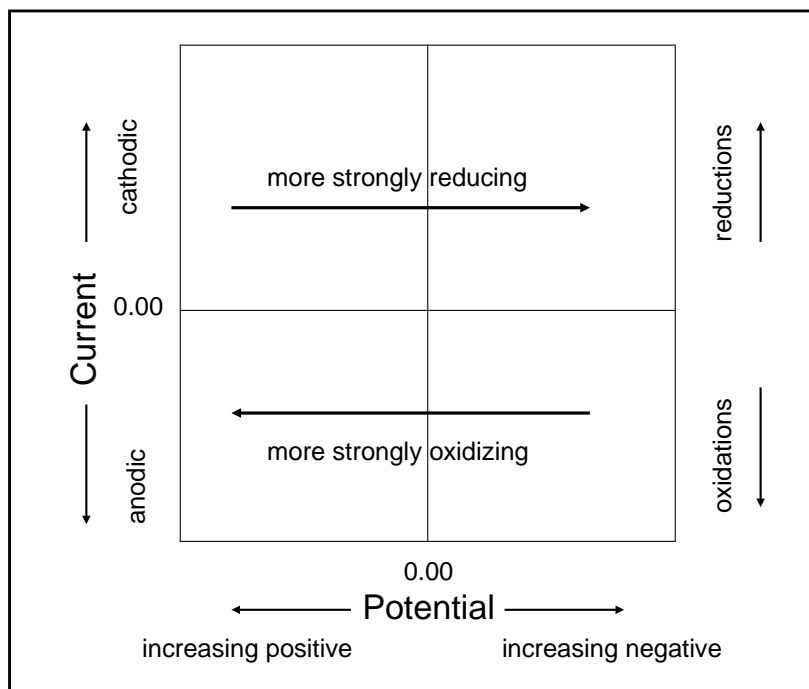


1. Plotting Conventions for Voltammetry

There are currently two major conventions in use for expressing current-potential curves of the type obtained in voltammetric analysis, the “classical”, or polarographic convention widely used in the United States, and the IUPAC convention used pretty much everywhere else. While there is no obvious advantage to either, one should be aware of the convention in use when reading literature on the subject.

In the classical convention, an applied potential of 0.00 V is located at the center of the abscissa (x-axis) with more negative (reducing) potentials to the right of 0.00 and more positive (oxidizing) potentials located to the left. Cathodic (reduction) currents are displayed as positive (up) values along the ordinate (y-axis), while anodic (oxidation) currents are displayed as negative (down) values. A schematic of this convention is shown in *Figure 4*.

Figure 4



The international, or IUPAC convention displays negative (reducing) potentials to the left of 0.00, and positive (oxidizing) potentials to the right. Cathodic (reduction) currents are displayed as negative (down) values along the ordinate, while anodic (oxidation) currents are displayed as positive (up).