Technical Background (ISE)

Understanding Ion Selective Sensors

- Analytical Potentiometric Ion Selective Sensors
- Types of Ion Selective Electrodes
- The Reference Electrode
- Traditional Laboratory Ion Selective Measurement Setup
- Types of Ion Selective Sensors
- The Electrical Double Layer
- Neutral Carrier-Based Ion Selective Membranes
- Potentiometric Selectivity Coefficient Determination and Significance
- Constants and Symbols for Selectivity Coefficients
- Ionophore Binding Mechanisms and Visualization
- Typical Characteristics and Expectations for Ion Selective Sensors
- The Problems with Anions

Additional content will be added in future updates (revisions) of this technical article to the end of chapter 3. The updates will discuss the topics of ultra-low sodium and calcium measurement. In addition, the topics of field measurements and analytical determination of nitrate, total nitrogen and copper as well as any other topics of interest in the current literature will be added as appropriate.

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