
Ionic Strength Changes in Capillary Electrophoresis

When you change the Ionic Strength (Buffer Concentration) in your CZE method, the following changes can be expected.

Joule Heating: An increase in ionic strength (buffer concentration) will produce more heating. See the effects of change in temperature for effects.

Viscosity: An increase in ionic strength or buffer concentration will cause an increase in viscosity. See the effects of change in viscosity for effects.

Electro Osmotic Flow: High ionic strength buffers will cause a decrease in EOF.

Analyte to Wall Interaction: A higher ionic strength buffer (buffer concentration) can lessen or eliminate Protein to Wall interactions.

Migration Time: An increase in ionic strength buffers can increase your migration times.

Resolution: An increase in ionic strength buffers can increase your capillary selectivity and therefore resolution.

Electrophoretic Mobility: An increase in ionic strength (buffer concentration) can increase the electrophoretic mobility of your analytes.