MICROSOLV TECHNOLOGY CORPORATION
HPLC Columns and Chromatography Accessories

SINCE 1992

Troubleshooting Common Injection Problems in Capillary Electrophoresis

Some of the most common problems with HPCE is caused by problems or errors created during the injection procedure. Following is a short table of Problems and Causes and Solutions to these problems.

Problem	Cause/Solution
No Injection at all	1.Replace the capillary or unplug the capillary 2.Check the pressure or vacuum of the system 3.Check to see if your sample vial is empty 4.Check to see if you are injecting from the correct vial 5.Check your polarity. Make sure it is set properly 6.Call your instrument's service technician to check the injector 7. The openings may be obstructed by residual coating material on a new capillary. Cut 1-2 mm off the ends in this case.

Variable Current	1.Large Injection causes this normally — reduce the amount you are injecting 2.Plugged Capillary? It should be replaced 3.Check to see if you are using the correct **buffer** vial 4.You may have injected an air bubble. Recondition the capillary 5.Check to make sure that the **analyte** and the catholyte are the same, at the same level and electrolysis did not take place due to **buffer** depletion. 6. The openings may be obstructed by residual coating material on a new capillary. Cut 1-2 mm off the ends in this case.
Poor Peak Area	1.Inject more sample in subsequent runs 2.Check to make sure that electrolysis did not occur due to **buffer** depletion. If so, replace the anolyte and the catholyte 3.Check to make sure that there is sufficient sample in your injection vial. Watch out for evaporation as well