

## 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.

<b>Problem</b>	<b>Cause/Solution</b>
No Injection at all	<ol style="list-style-type: none"><li>1. Replace the capillary or unplug the capillary</li><li>2. Check the pressure or vacuum of the system</li><li>3. Check to see if your sample vial is empty</li><li>4. Check to see if you are injecting from the correct vial</li><li>5. Check your polarity. Make sure it is set properly</li><li>6. Call your instrument's service technician to check the injector</li><li>7. The openings may be obstructed by residual coating material on a new capillary. Cut 1-2 mm off the ends in this case.</li></ol>



Variable Current	<ol style="list-style-type: none"><li>1. Large Injection causes this normally — reduce the amount you are injecting</li><li>2. Plugged Capillary? It should be replaced</li><li>3. Check to see if you are using the correct <b>buffer</b> vial</li><li>4. You may have injected an air bubble. Recondition the capillary</li><li>5. Check to make sure that the <b>analyte</b> and the catholyte are the same, at the same level and electrolysis did not take place due to <b>buffer</b> depletion.</li><li>6. The openings may be obstructed by residual coating material on a new capillary. Cut 1-2 mm off the ends in this case.</li></ol>
Poor Peak Area	<ol style="list-style-type: none"><li>1. Inject more sample in subsequent runs</li><li>2. Check to make sure that electrolysis did not occur due to <b>buffer</b> depletion. If so, replace the anolyte and the catholyte</li><li>3. Check to make sure that there is sufficient sample in your injection vial. Watch out for evaporation as well</li></ol>