

4.3 UniJet Reference Electrodes

The UniJet detector is shipped with a silver wire coated with AgCl (the Ag/AgCl reference electrode). It should be regenerated each time the mobile phase is changed or the electrode is polished (Section 3.8). After polishing and rinsing with water and methanol, apply a drop of the reference electrode coating solution (CF-2200) to the electrode surface (see Figure 4.6). Do not allow the solution to get on the working electrode or on your skin. Leave the solution on the electrode for 5 minutes. Rinse the electrode with water. The reference electrode should be a dull bronze color and uniform in appearance.

The UniJet reference electrode is a pseudo-Ag/AgCl reference electrode. The reference electrode potential is determined by the quantity of Cl^- in the mobile phase. The higher the Cl^- concentration, the closer the reference will become to a standard Ag/AgCl. We recommend using 10 mM NaCl in any mobile phase to increase the stability of the reference electrode and prevent alterations in the potential. The UniJet reference electrode is about 100 mV more positive than the standard RE-4 Ag/AgCl reference electrode. Thus, the potential set on the detector should be 100 mV less than was used with an RE-4.

Figure 4.6. Coating the UniJet reference electrode.

