VARIAN

SERVICE How To

Model Number:	Originator:	Topic
2100, 2100 *Ice*, 380 & 385 ELSD	**Des Wichems (From an original document from Stephen Bullock)**	**Reloading the Fraction Collector Calibration Coefficients**

Cleaning recommendations for the Varian ELSD

If the evaporator tube becomes contaminated with non-volatile material resulting in poor chromatography, it is recommended that the instrument is initially washed with a solvent suitable for the contamination.

Some of the "cleaning" solvents recommended are:

1. Acetone/Water (50/50)
2. Hexane/IPA (50/50)
3. THF
4. DCM

Cleaning Procedure:

1. Set the ELSD to the following conditions:
   - Evap temp 40 °C,
   - Neb temp 40 °C
   - Gas flow 2.5 SLM.

2. Connect the ELSD directly to the HPLC pump (bypassing the A/S and column)

3. Pump the "cleaning" solvent (selected from the list above) into the instrument at 1 or 2 mL/min, (whilst in the RUN mode)

4. Perform this procedure overnight or for a minimum of 4 hours.

5. During the cleaning procedure, the ELSD response may show a full-scale deflection. This indicates that contamination is being flushed from the detector.

6. Following the cleaning procedure, re-connect the column and A/S and check the detector by injecting a sample that provides a known response.

7. Repeat the wash procedure with a different solvent, or for a longer period if the ELSD signal is not improved

Preventative Maintenance:

Depending on usage, it is recommended to clean the evaporator tube at least once a week or every 40 hours. The build up of contamination can be identified early by monitoring the baseline noise over time, or by checking the ELSD offest reading.

To check the ELSD offset value;

1. Switch the ELSD off at the rear socket.

2. Switch the detector back on and place into RUN mode.

3. Record the ELSD reading from the front panel -this is the OFFSET value.

4. Offset values above 140mV indicate contamination and it is recommended the ELSD be cleaned.

It is also recommended to clean the unit following the use of buffers, or where sample matrix contains impurities (i.e. "dirty" sample). If cleaning the unit does not cure the problems then consult Varian Field Support for further assistance.