# ATAS Evolution Workstation , Method *'Large Volume'*

| General | |
|---|---|
| Method Name | Method1 |
| Equilibration Time (sec) | 5 |
| End Time (sec) | 300 |

Name of the method and it will be displayed on the control box during the time that the method is active.

Time that the OPTIC will stabilize its parameters after they are set to their initial values and after the ready input signal is received from the gas chromatograph.

Method run time. Normally this is set equal to the GC run time.

| Injector Temperature | |
|---|---|
| Initial Temperature (°C) | 35 |
| Ramp Rate (°C/sec) | 5,0 |
| Final Temperature (°C) | 200 |
| ISO Time (sec) | 137 |
| Temperature Control | Keep Until End |
| Solvent Cooling Effect | No |
| Cooling Valve Mode | No |

The temperature is normally set to about 5ºC or more below the atmospheric boiling point of the solvent.

Do not use a too fast ramp rate, this will have the same effect as a hot injection. Normally 5ºC/sec is a good value.

Final temperature of the OPTIC. Do not exceed the maximum temperature of the liner. ('A' type liner 325ºC and 8270 liner 305ºC)

Time when floating point starts. (Floating = heater turned off, no cooling)

Normally 'Keep Until End' will be used. However if you would like to cool the injector before the end of the GC run, you can select 'Floating'. (This will save cooling gas and electrical power.)
(Please remember, there is no set-point for the final temperature, in this caseit is called 'Floating')

When a large volume injection is performed, the solvent is evaporated and vented out of the injector. For the evaporation heat (energy) is used and this will result in a temperature drop of the liner.
'No' means that the injector will try to maintain the initial temperature. (Normally used)
'Yes' means that the controller will not heat against the cooling effect of solvent evaporation. This will result in a larger temperature drop in the liner and therefore low boiling analytes are more retained. (this results in longer vent times.)

Normally this is set to 'No'. When 'Yes' is chosen, the injector will use cooling gas to control the temperature during the run.

| Column Flow | |
|---|---|
| Sample Sweep Column Flow (ml/min) | 1,0 |
| Transfer Column Flow (ml/min) | 1,0 |
| Transfer Time (sec) | 180 |
| Initial Column Flow (ml/min) | 1,0 |
| Final Column Flow (ml/min) | 1,0 |

Column flow at the moment of injection and during the vent time.

The column flow at the time that the compounds are transferred onto the column. This flow can be increased to improve the sample transfer. (a so called pressure pulse)

Time during which the 'Transfer Column Flow' is active. It is important to set this time not too short. If this time is too short, high boilers will be lost. 120 sec is sufficient in most applications.

Starting column flow. This should be set to an appropriate flow for the installed column.

Column flow at the end of the run. Can be used to force the high-boilers out of the column. This is normally set equal to the initial column flow.

| Solvent Venting | |
|---|---|
| Vent Mode | Threshold |
| Vent Time (sec) | 30 |
| Solvent Monitor Level (%) | 10 |
| Solvent Monitor Threshold | 25 |

For a large volume injection most of the solvent needs to be vented off. This can be done by time or by making use of the solvent sensor. 'Fixed Time': is a mode that uses user defined time to vent the solvent out. The injector will switch to the splitless state after vent time is elapsed. 'Solvent Level'(1): the sensor is used and the injector will be switched to splitless depending on the level of the sensor. (solvent peak) 'Threshold'(2): the sensor is used and the injector will switch to splitless depending on the threshold set for the sensor. (solvent peak)

Time that the solvent will be vented. The 'Vent Flow' is active during this time.

The OPTIC will switch from vent flow to splitless when the sensor has reached the relative level (%) of the solvent peak.

The OPTIC will switch from vent flow to splitless when the sensor has reached the threshold value of the negative slope of the solvent peak.

| Split Flow | |
|---|---|
| Vent Flow (ml/min) | 50 |
| Split Flow (ml/min) | 25 |

Split flow during injection and 'Vent Time'.

Split flow after the 'Transfer Time' is elapsed. (normal split flow)

(1) - relative vent mode
(2) - absolute vent mode