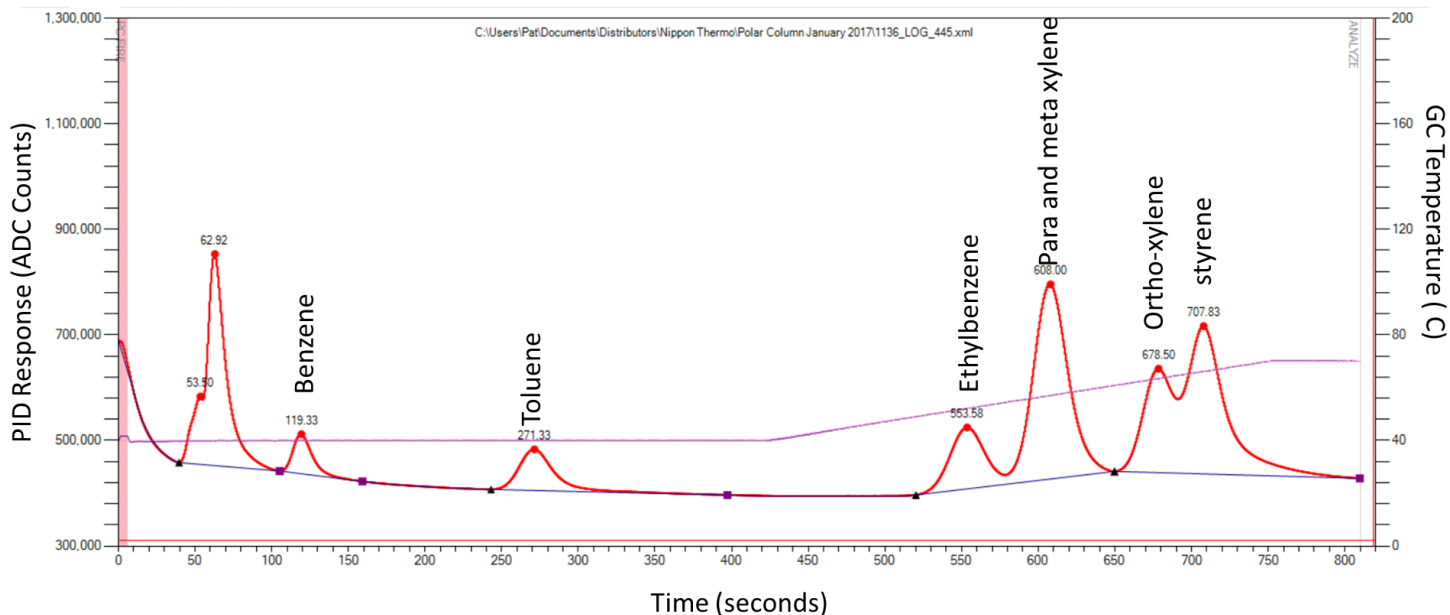




FROG-5000™  
DT-Wax Column for  
BTEX and Styrene Separation



Parameter	Value
Ta	420
Tb	330
Tc	60
Ct	40
Ht	70
Collect	30
Clean	4
Presettle	4
Settle	2
Fire	6

Analyzing styrene in the presence of BTEX on a standard DT-1 GC column, results in the coelution of styrene and ortho-xylene. Defiant now offers its DT-Wax column for the FROG-5000™ to promote separation of these two compounds. The high polarity of carbowax is capable of separating ortho-xylene and styrene. This separation will enable you to identify both compounds and measure their concentration in air or water samples. The disadvantage of the carbowax column is that it cannot be used with air as the carrier gas at temperatures above 80°C. This may present problems if less volatile compounds, such as naphthalene as present in the sample. At an 80°C upper temperature, it will take an extended period of time for the low vapor pressure compounds to emerge from the column.

Typical operating parameters for separating ortho-xylene and styrene with a FROG-5000™ with the carbowax column are shown to the left. The separation can be further improved by lowering the flow rate to 1 mL/min or less. The elution order for the BTEX and styrene compounds is shown in the figure at the top.