



The SRI Family of Educational GC Systems



- CCD - Detects Hydrocarbons & Hydrogen
- TCD - Detects all Compounds
- FID - Detects all Hydrocarbons

310 chassis 12.5" W x 14.5" D x 12.5" H
 Single Channel PeakSimple Data System
 Temperature Programmable Column Oven
 1-meter Packed Column

Your curriculum requires a GC, but your budget won't allow for expensive gas chromatography equipment... and the lab bench space—where will you put it? SRI Educational GC systems are ideal for undergraduate chemistry classes where the principles of gas chromatography are demonstrated on the same equipment students will encounter in industry. These GCs are configured on the compact 310 chassis, so they take up a minimum of bench space. Choose from three detector types: the Gas-less™ Catalytic Combustion Detector (CCD), Thermal Conductivity Detector (TCD), or Flame Ionization Detector (FID). Each SRI Educational GC includes a single channel, Windows™ based PeakSimple data system. The Gas-less™ CCD GC includes a one meter Hayesep-D packed column and a built-in, whisper-quiet air compressor which allows operation without external gas supplies. The TCD and FID Educational GCs include a one meter Silica Gel packed column, and Electronic Pressure Control (EPC).

Gas-less™ CCD

Catalytic Combustion Detector

- Hydrocarbon selectivity
- 100% to 500ppm sensitivity



TCD

Thermal Conductivity Detector

- Universal selectivity
- 100% to 200ppm sensitivity



FID

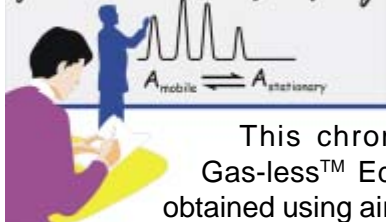
Flame Ionization Detector

- Hydrocarbon selectivity
- 100% to 1ppm sensitivity



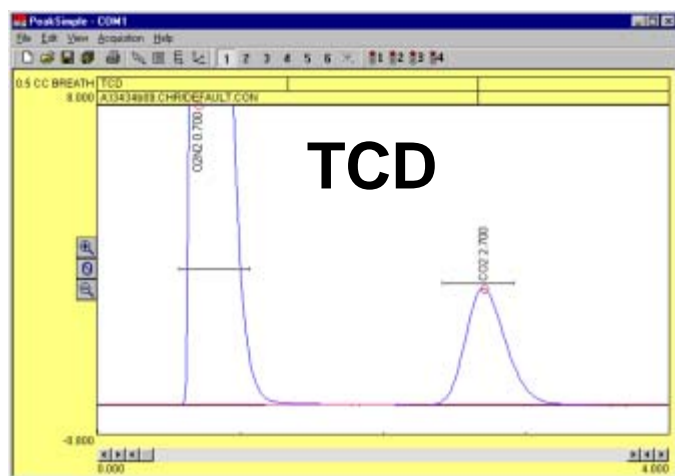
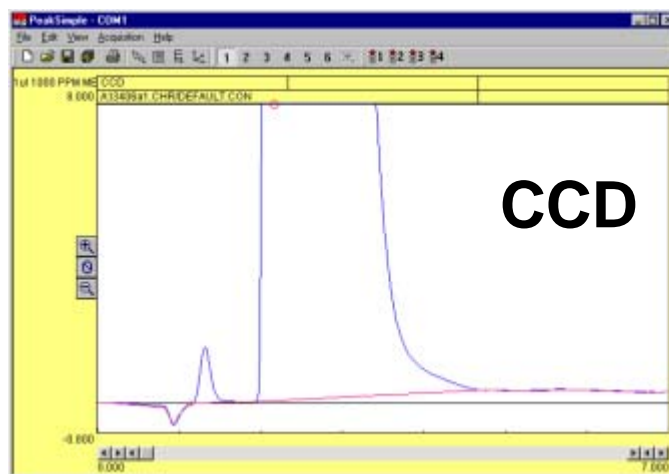
SRI Educational GC Systems

Gas Chromatography



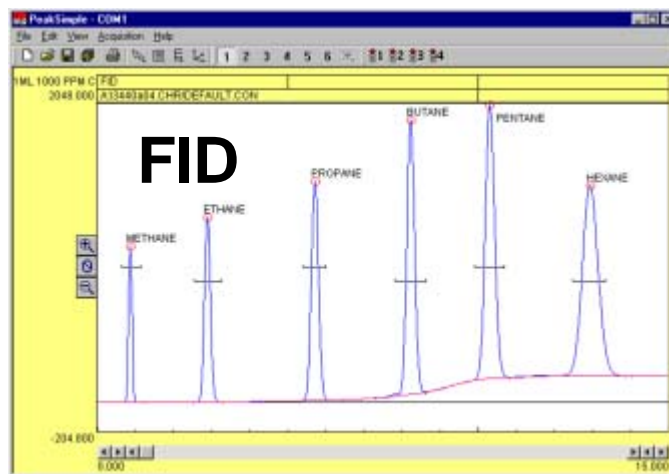
The following three chromatograms are examples of what you can do with an SRI educational GC system:

This chromatogram from a Gas-less™ Educational GC was obtained using air from the built-in air compressor as carrier gas and a direct injection of 1µL 1000ppm Methanol in Acetone mix. Students can clearly see the Methanol and Acetone component peaks, as well as a negative water peak at the beginning of the run. Sample standards are available, but similar results may be obtained by running a finger nail polish remover sample—cheap and readily available!



This chromatogram is from a direct injection of 0.5mL of human breath. The longer we hold our breath, the higher the CO₂ content. This was the result of a class experiment called “Waiting to Exhale,” which is included in the manual. It is a contest to see who can blow the most CO₂. Participants merely exhale into a 3mL syringe, then inject 0.5mL into the on-column injector of an Educational TCD GC.

A 1mL sample of 1000ppm C₁-C₆ hydrocarbons was separated with an Educational FID GC to produce this chromatogram. The FID response is linear and reproducible. Stable from day to day, the FID is not susceptible to contamination from dirty samples or column bleed. The FID is the preferred detector for general hydrocarbon analysis.



- 0310-1005 Gas-less™ Educational CCD GC system
- 0310-0000 Educational TCD GC system
- 0310-0004 Educational FID GC system

Prices start at \$4,995.00