



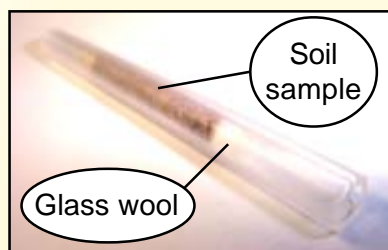
PCB GC System

- **High Sensitivity**
- **No Sample Preparation**
- **Accepts Large Samples—up to 1 gram**
- **Hydrocarbon Speciation & Quantification**
- **Chlorine & Bromine Specific**

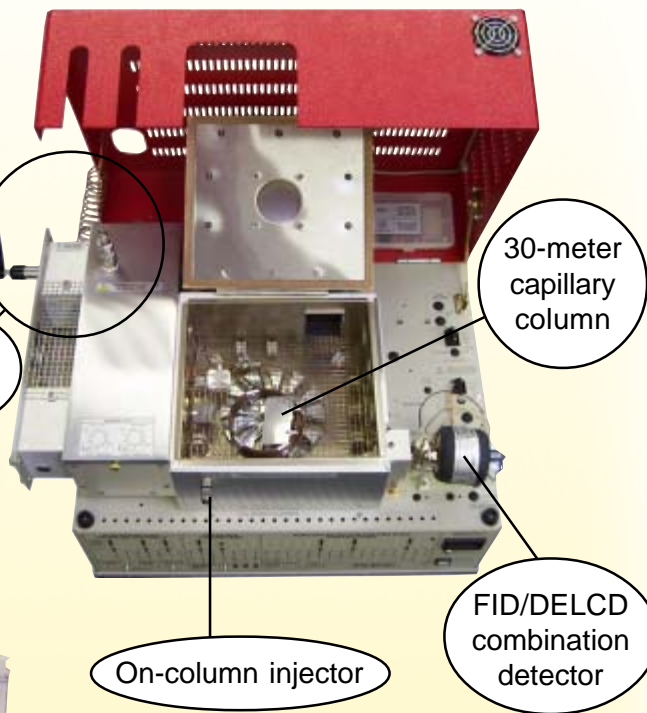
The SRI PCB GC System has everything you need to detect PCBs in soil and other solid matrices. The Thermal Desorber accessory permits the user to inject and analyze PCBs with high sensitivity and little or no sample preparation—no solvent extraction is required! Up to one gram of soil or another

solid matrix can be loaded into the re-usable glass desorption tubes. The FID detector responds to all hydrocarbons, and the DELCD identifies which are chlorinated or brominated. The PCB GC is also useful for detecting pesticides, PAHs, JP-4, kerosene, and diesel in soil. Because soil samples are typically 20-50% water, the unique design of the SRI FID automatically relights the flame after a large water peak. The 30-meter capillary column efficiently separates hydrocarbons up to C₄₀+. The built-in, “whisper quiet” air compressor provides air for the detectors, and if used with the H₂-50 hydrogen generator, no cylinders are required.

- **Thermal Desorber**
- **30-meter Capillary Column**
- **FID/DELCD Combination Detector**
- **Built-in, “whisper quiet” Air Compressor**
- **4 Channel PeakSimple Data System**
- **On-Column Injector**



Up to one gram of soil or other solid matrix can be loaded into the re-usable glass desorption tubes.

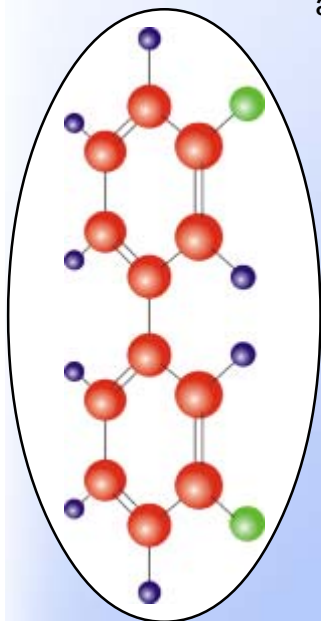


Eliminate the need for compressed gas cylinders with the optional H₂-50 hydrogen generator.

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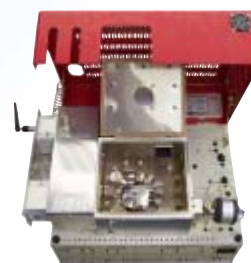
From their commercial introduction in 1929 to the cessation of US production in 1977, 1.5 billion pounds of polychlorinated biphenyls were manufactured in the United States. From 1929-1989, 1.5 million tons of PCBs were produced worldwide.

Manufacturing of PCBs was halted in the United States because of their toxicity and persistence in the environment. However, there are still PCB-containing transformers, capacitors, hydraulics, and other products in use that will have to be properly flushed and disposed of at the end of the product life. The same attributes that made PCBs ideal for use in transformers, capacitors, hydraulics, etc., cause them to not break down in our environment. Studies show that PCBs bind to soil better than air, water, sediment or plants and animals. However, PCBs are found in fish and shellfish, and are the leading chemical risk in fish consumption. Because polychlorinated biphenyls are ubiquitous, most people have low levels of PCBs in their body from environmental exposure.



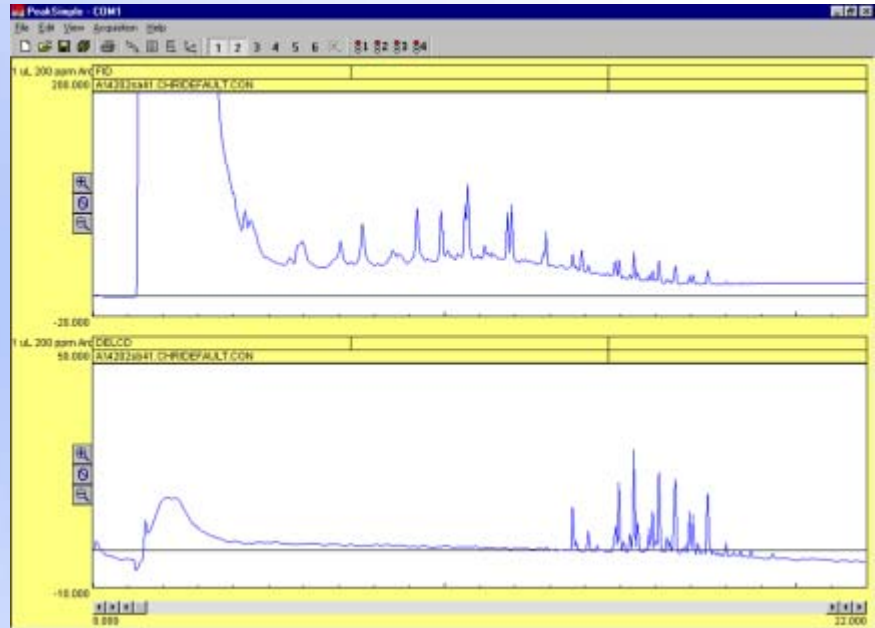
In 1976 through the Toxic Substances Control Act (TSCA), Congress legislated “cradle to grave” management of PCBs in the United States, requiring specific labelling, storage and disposal methods of PCB transformers and capacitors, electrical equipment, hydraulic machines, and other PCB-containing items. Solvents such as kerosene, xylene, and toluene are used to flush PCBs from transformers and other contaminated items, and may be reused for the same purpose until the PCB concentration in the solvent reaches 50ppm. Compliance with all these regulations requires testing.

The PCB GC System can screen soil and solvent samples alike for PCBs. Up to one gram of soil or another solid matrix can be loaded into the re-usable glass desorption tubes. Liquid samples may be introduced via the On-column injector, and the optional Programmable Temperature Vaporization (PTV) injector upgrade allows the injection of large liquid samples (up to 1mL+).

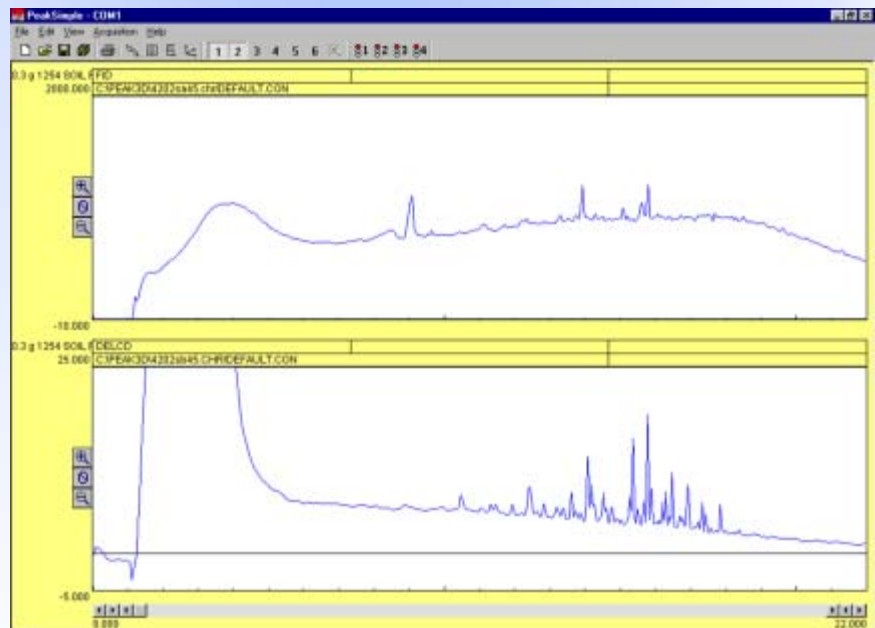


Due to the extreme selectivity of the DELCD, PCBs can be discriminated even in the presence of massive hydrocarbon contamination. The DELCD itself is protected from hydrocarbon contamination because the FID pre-combusts the sample.

This set of chromatograms shows the analysis of a 200ppm Aroclor 1254 sample in diesel. The FID shows the diesel hydrocarbons and the PCBs. In contrast, the DELCD shows only the PCBs, revealing what was obscured by hydrocarbons in the FID chromatogram.

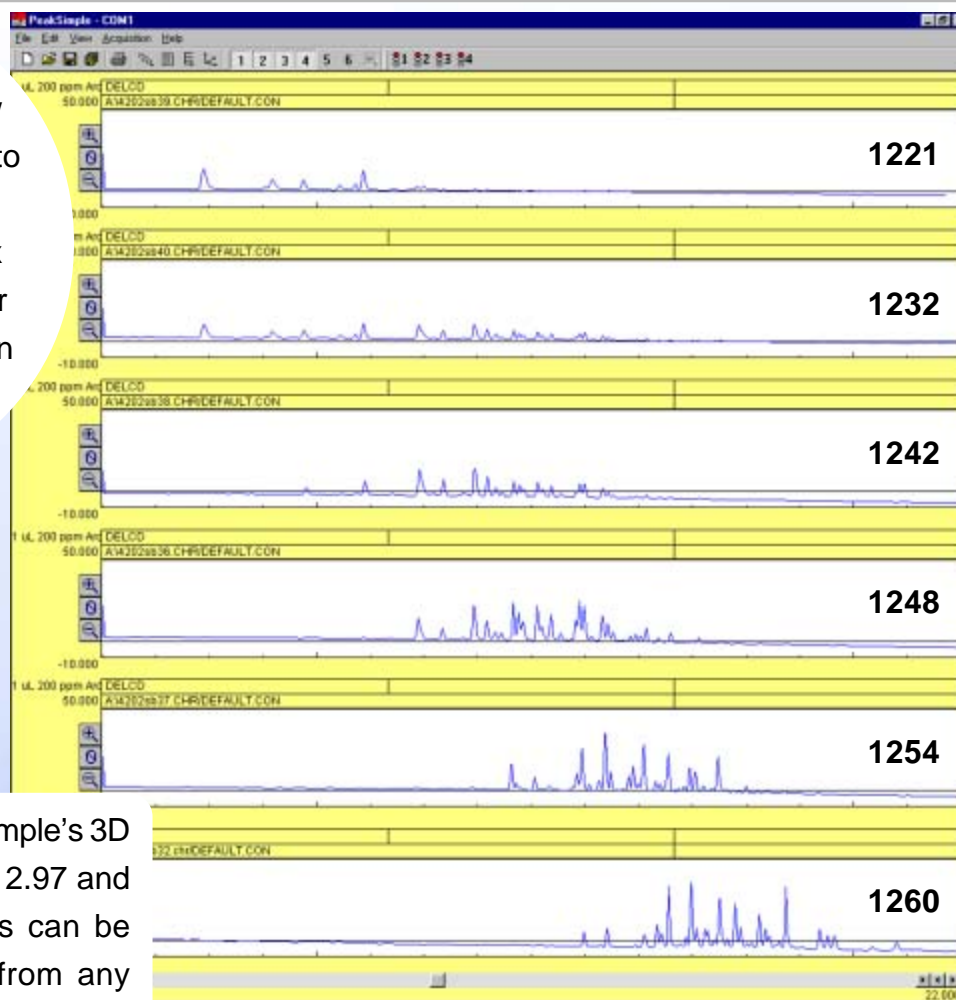


This set of chromatograms shows the analysis of a real world standard: 0.3 grams of soil from a contaminated site. This standard is NIST certified to contain 1.34ppm Aroclor 1254. The DELCD clearly shows the PCBs in the sample.

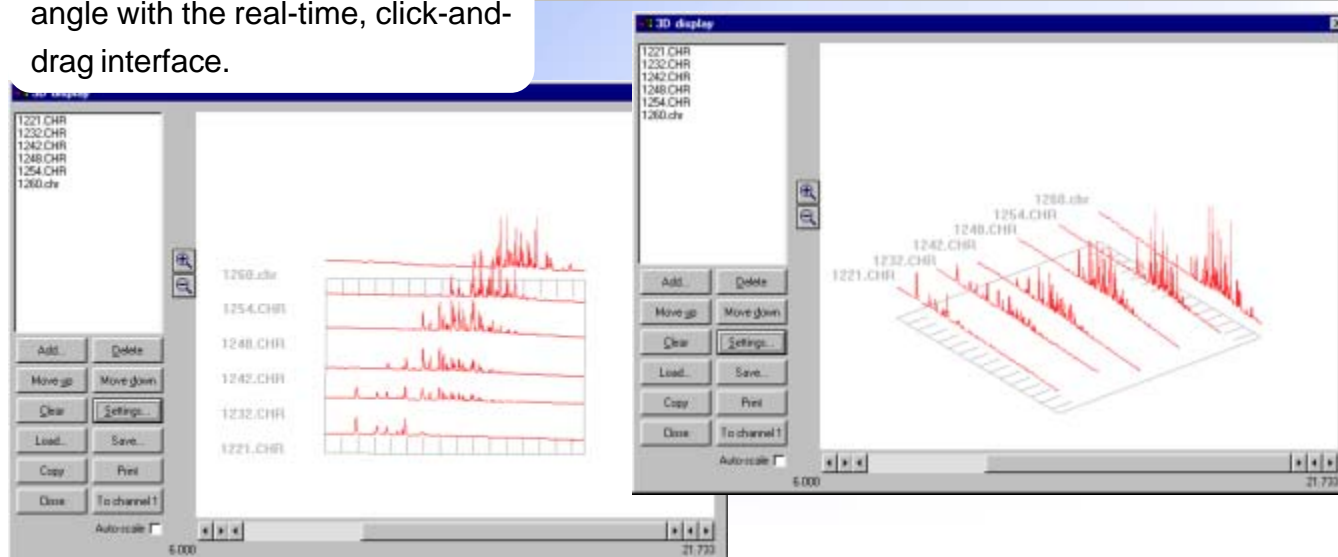


PCB GC System

These six chromatograms show the DELCD response to six different Aroclor PCB samples. All six runs were made under the same conditions on a PCB GC system.



When loaded into PeakSimple's 3D display feature (versions 2.97 and up), the peak signatures can be viewed and compared from any angle with the real-time, click-and-drag interface.



8610-0080

PCB GC System

\$ 14,995.00

Voltage: for 110VAC, use 8610-00780-1; for 220VAC, use 8610-0080-2

Options and Upgrades: additional detectors, 6 channel USB PeakSimple data system, Split/Splitless and PTV injector upgrades

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