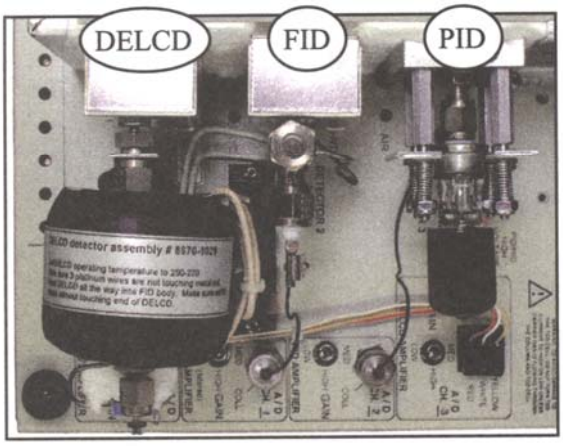
DELCD - Dry Electrolytic Conductivity Detector

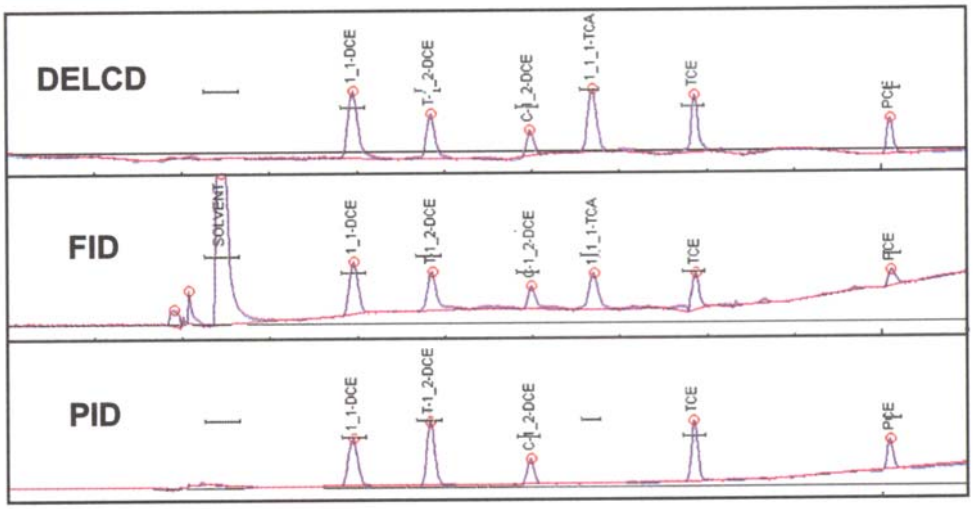


- ***Nonradioactive alternative to ECD!***
- ***High Sensitivity—Detects down to 10ppb***
- ***Selective to Chlorinated and Brominated molecules***
- ***Best used with Headspace or Purge & Trap injectors***
- ***Can be Combined with FID, NPD, or TID detectors***
- ***Spare Detector Cell included***

The DELCD is useful for low-level detection of chlorinated and brominated solvents in environmental samples and other trace analyses. In the picture above, a DELCD is mounted next to FID and PID detectors on an SRI GC. The three chromatograms below are from a similar SRI GC.

The Dry Electrolytic Conductivity Detector possesses sensitivity much like the ECD, except it is more selective to halogens and blind to oxygen. The SRI DELCD differs from the traditional wet ELCD in that it does not use a solvent electrolyte or nickel reaction tube, and the reaction products are detected in the gaseous phase. In the high sensitivity mode (no hydrogen, using dry tank air), the DELCD can detect down to the low picogram range. In this mode, the DELCD is about 100 times more sensitive than the FID/DELCD. However, the high sensitivity DELCD is susceptible to contamination from high concentrations of chlorinated hydrocarbons and hydrocarbon solvents.

A 50ppb Japanese VOC standard was placed into a VOA vial with water, then allowed to equilibrate at room temperature for 45 minutes before 1mL of the headspace was injected. The FID chromatogram shows all the components and the solvent. The DELCD does not respond to the solvent, and the PID does not detect the 1,1,1-TCA.



8690-1026	DELCD detector