

## Specifications

- Solid state peltier cooler
- Dual Multi-stage adsorbent traps
- Replaceable/configurable adsorbent traps
- Ballistic Heating via ultra capacitor
- Direct trap temperature measurement via thermocouple
- Configurable for use with a variety of detectors or gas chromatograph
- Temp Range: -20C trapping up to 350C desorption in under 2 sec
- Sample Volume: depends on target compounds and adsorbent configuration – C2-C6 NMHC ~1L
- Size: 5.2" (h) x 11.75" (d) x 3.0" (w)
- Power: 200 W @ 24VDC

## Description

Use of a preconcentrator can lower detection limits for a variety of hydrocarbon analyzers by a factor of 1000. Typical configurations have included photoacoustic, GC-FID, MS, ECD, and PID detection. A wide range of hydrocarbons can be analyzed by using a multi-stage adsorbent bed. Solid state peltier cooling allows trapping of very light compounds. Ballistic heating of the trap from a charged ultracapacitor allows very fast desorption and analysis. The ultracapacitor is charged slowly to minimize the power requirement.

### Reference:

Tanner, D., D. Helmig, J. Hueber, and P. Goldan. (2006), Gas chromatography system for the automated, unattended, and cryogen-free monitoring of C2 to C6 non-methane hydrocarbons in the remote troposphere, *Journal of Chromatography A*, 1111, 76-88

