

# Hydrogen Detection using the SRI TCD detector and Nitrogen carrier gas

An SRI Model 310C Gas Chromatograph equipped with a Thermal Conductivity Detector ( TCD ) was used to detect hydrogen in room air at 10 ppm.

A 1 meter MS 5A column with Nitrogen carrier gas was installed in the 310C column oven and operated at 50 degreesC and 6 psi of head pressure.

The upper chromatogram shows a 1ml injection of 10ppm hydrogen in room air.

The lower chromatogram shows a 0.1ml injection of 100ppm hydrogen in room air.

The area of the hydrogen peak is the same in both chromatograms however the peak shape and separation from the oxygen peak is better due to the lower injection volume.

