

Tunable Column Selectivity (TCS) GC System

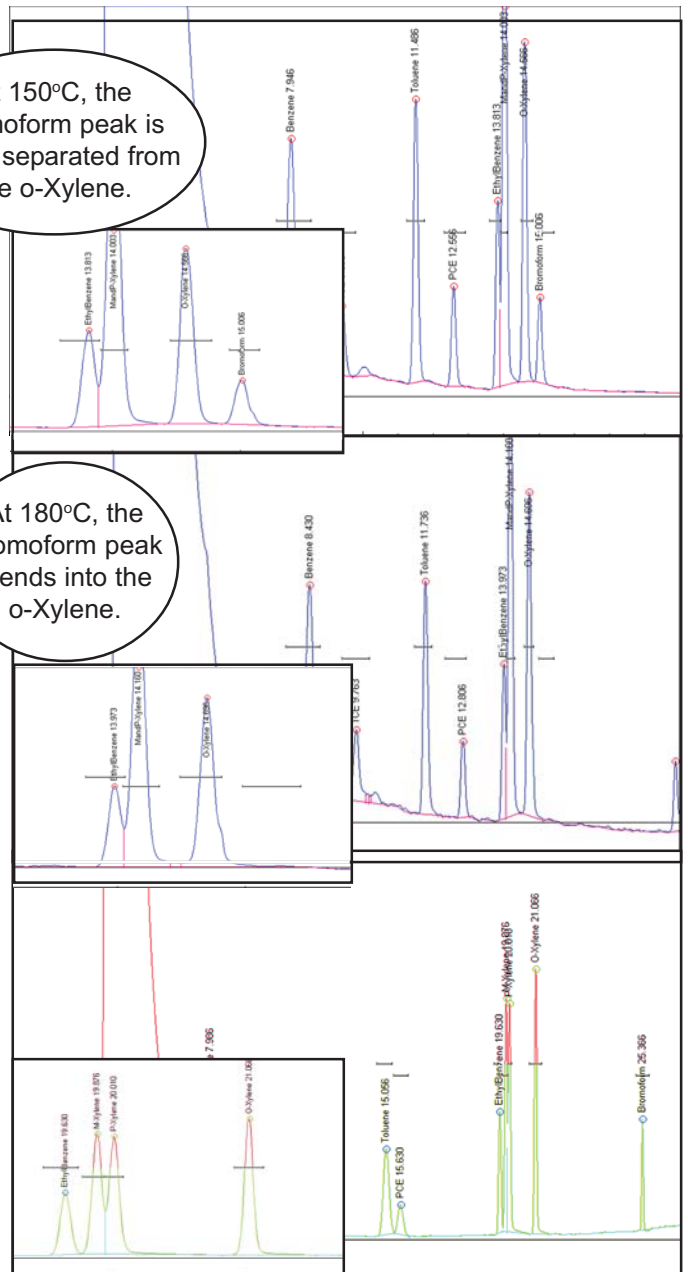


- **FID Detector**
- **On-Column Injector**
- **Built-in “whisper quiet” Air Compressor**
- **1 channel PeakSimple Data System**
- **Dual Capillary Columns**
- ...on the 8610D Dual Oven chassis

The Tunable Column Selectivity (TCS) GC System allows users to adjust the selectivity of the dual column ensemble by dynamically varying the temperatures of the two series-coupled columns. The first column, located in Oven #1 (15 meter MXT-1) is nonpolar, and the second column, located in Oven #2 (30 meter MXT-wax) is very polar. By controlling the temperature and temperature ramp of each column independently, the overall separation can be controlled, thus tuning the overall polarity of the dual column ensemble. As shown in the chromatograms at right, a sample of BTEX+ Bromoform is separated using the same temperature program on the nonpolar column, while varying the temperature program of the polar column. The bromoform peak at 150°C is nicely separated from the o-Xylene, but at 180°C, the bromoform peak blends into the o-Xylene. In the bottom chromatogram, the polar column is temperature ramped to yield a dramatic separation of the bromoform/o-Xylene, but also near baseline resolution of m- and p- Xylene. This separation is normally not possible with any other known column.

At 150°C, the bromoform peak is nicely separated from the o-Xylene.

At 180°C, the bromoform peak blends into the o-Xylene.



8610-5500

TCS GC system



OPTIONS & UPGRADES: additional detectors with 4 channel serial or 6 channel USB PeakSimple data system, FID Methanizer, split/splitless or PTV injector, H₂-50XR hydrogen generator (VOLTAGE: for 110VAC, use “part number-1” [ex: 8610-5500-1] for 220VAC, use “part number-2”)