

HT8-PCB: FAST GC-ECD SEPARATION OF PCB CONGENERERS

The Problem:

- 209 Possible PCB Congeners
- 120-150 commonly found in environmental samples
- Fast accurate analysis needed for environmental monitoring

The Solution:

- SGE's HT8-PCB column: Designed for PCB separation.
- SGE's HT8-PCB column: Analysis time: 61 min, Resolution: 122 peaks for 144 congeners, Detection limits: <100 fg, Quantitation limits: 1 pg

Three columns compared for speed and accuracy using GC-ECD

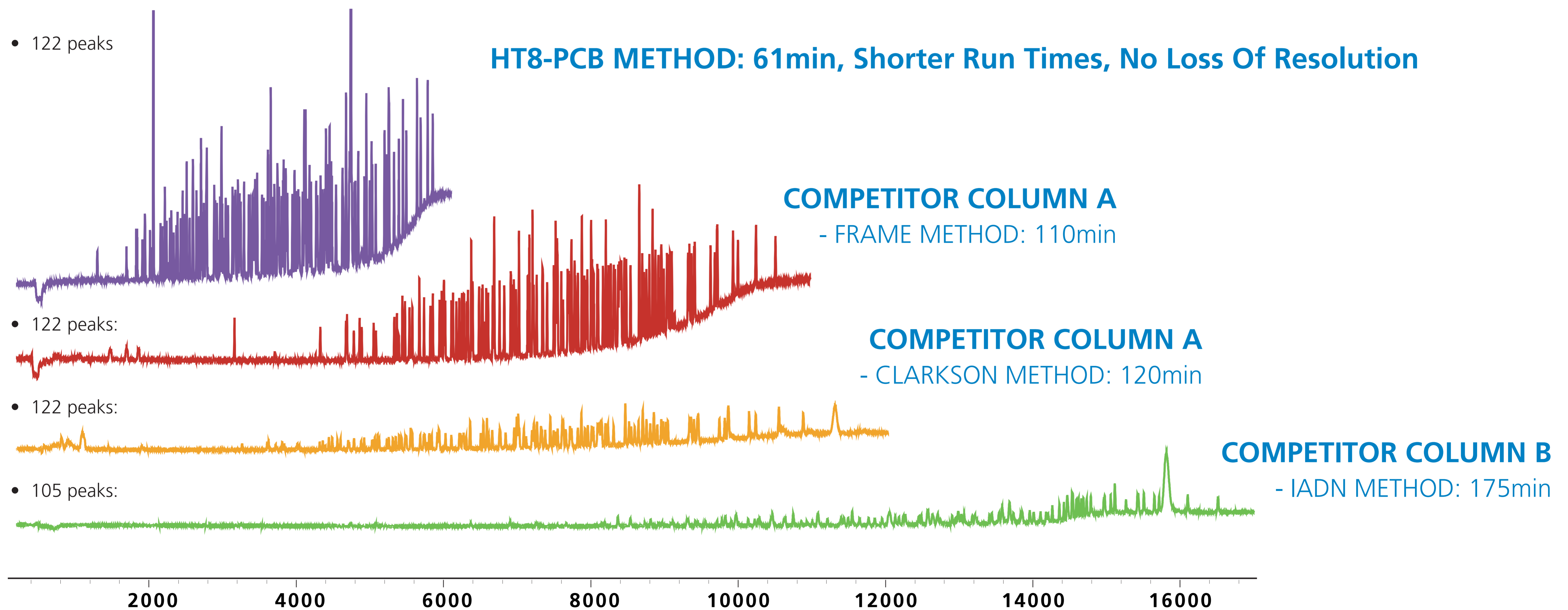


Figure 1: Chromatograms of a mixture of 144 congeners of PCB's.

Experimental details:

Column: SGE HT8-PCB, 60m x 0.25mm.

Carrier gas: Helium (UHP), with a flow of 1.0 ml/min.

Injection volume: 1.0 ul. splitless.

Temperature Program: Held at 120°C for 5 min, ramp 20°C/min to 180°C, ramp 2°C/min to 260°C, ramp 5°C/min to 300°C, and held for 5 min.

Makeup gas: Nitrogen (UHP), with a flow of 10 ml/min.

Injection temp: The inlet and detector had constant temperatures of 250 °C and 350 °C, respectively.

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