

Cryogenic Trapping System for Gas Chromatography

CryoFocus-4

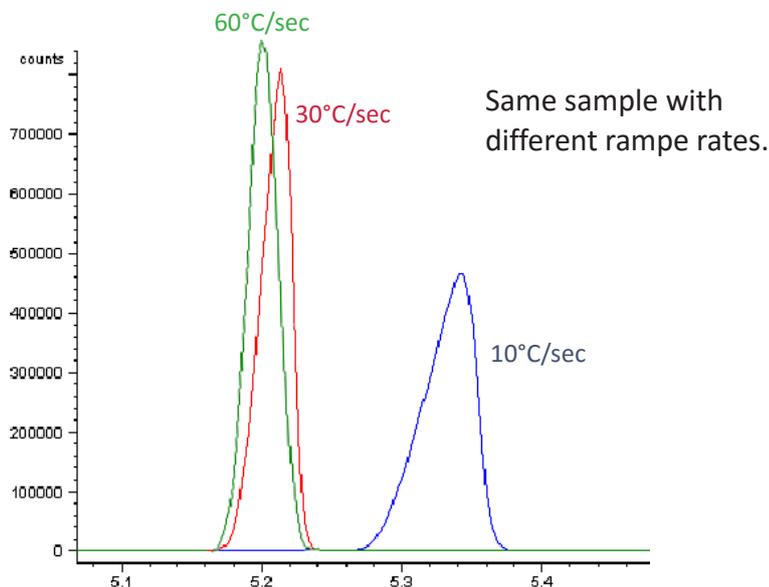


Fast Heating and Cooling

Unique, low thermal mass design of the CryoFocus-4 trap allows extremely fast heating (up to 60 °C/sec) and cooling.

Cooling can be done in two different way's;

- Using LN2 from pressurized vessel (direct cooling). Trap can be cooled down to -150 °C.
- Using CO2. Trap can be cooled down to -50 °C.



Universal Trap

The Cryofocus-4 is designed to be installed on any type of GC. The universal installation kit is available. Thanks to its clear and structured control software, operation of the system is also very simple.

CryoFocus-4 Versions

- Integrated with OPTIC-4 Multi Mode GC Inlet system
- Stand-alone unit compatible with any GC LN2 or CO2 verions.

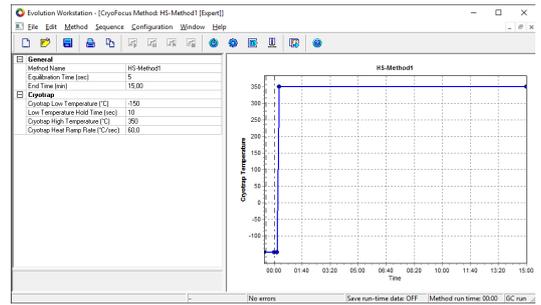
Why CryoFocus-4?

- Fast heating and cooling
- Low consuption of LN2
- Improve detection limits
- Improve separation
- Compatible with any GC
- Software controlled

Programmable GC Cryogenic Cold Trap

Cryogenic cold trapping is frequently used for narrowing the chromatographic band and improving the detection limit.

When trapped, analytes must be released from the trap using a highly accurate and very fast heating ensuring that they are introduced onto the column in a very sharp band. This results in better detection limit and better resolution

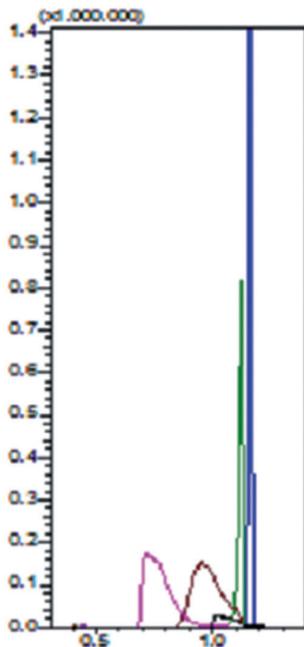


Increase in Sensitivity

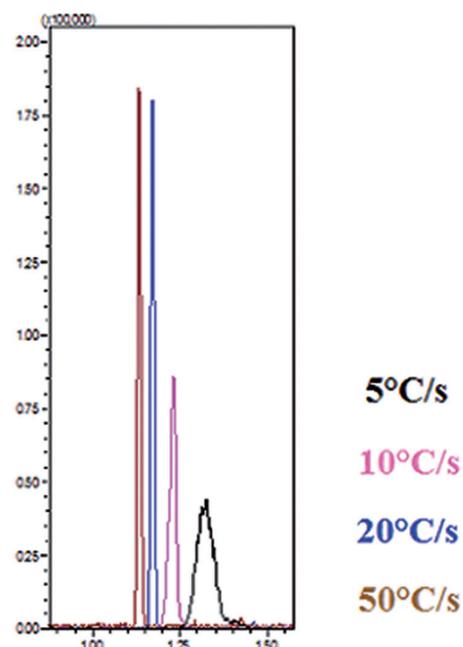
With CryoFocus-4 analytes are focused at the head or end of the column by cooling its selected section to sub-ambient temperature. After re-focusing, the analytes are released from the trap in a very narrow band using an extreme fast heating rate of 60 °C/second. As a result, very sharp peaks with a high signal to noise ratio are obtained.

Low Temperature and Fast Heating Ramp Rate

Headspace out of Water



Influence of Cryotrap low temperature for Vinylchloride (M/Z = 62)



Influence of Cryotrap heating rate for Vinylchloride (M/Z = 62)

Specifications

Cooling Media:	LN2 (-150 °C), CO2 (-50 °C)
Consumption LN2:	approx. 1 liter per sample, depending on GC method
Cool down time:	2-3 minutes (from 350 °C down to -150 °C at GC oven at 50 °C)
Temperature range:	-150 °C to 350 °C
Heating ramp rate:	1 to 60 °C/sec
Heating system:	3 V DC, 15 W max
Operating modes:	manual or automatic
Dimensions Control Unit:	L 34 x W 14 x D 34 cm, 6.7 kg
Dimensions Trap:	ø 34 mm, 115 mm long, 0.8 mm ID
Power:	80 VA
Software:	Evolution Workstation is included with the unit (Windows 7, 10)

Available systems

2406-3007	CryoFocus-4/LN2 GC Cryotrap System, LN2 Cooling
2406-3008	CryoFocus-4/CO2 GC Cryotrap System, CO2 Cooling

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