50 Year Innovation

CDS Analytical

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CE

CDS-7550S

- 72 Position Thermal Desorption Autosampler with Peltier and Pre-Desorb Duo-Mode Analytical Trap

Introduction

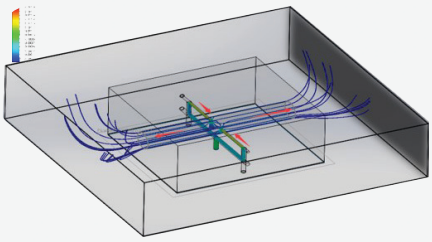
The CDS 7550S is a stand-alone 72 position thermal desorption autosampler. With the 2nd generation CDS autosampler platform, the CDS 7550S is capable of 3D positioning within 1 mm, and thanks to its unique calibration capability, 7550S can use any 1/4" OD x 3 1/2" L, as well as 6 mm OD x 4 1/2" L, Thermal Desorption tube through an easy calibration interface. These features provide the CDS 7550S with the best thermal desorption tube compatibility.

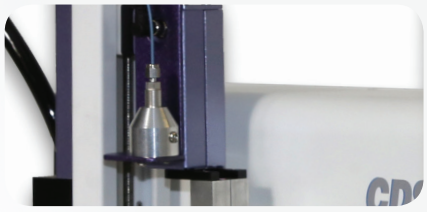
With the optional Peltier electric cooling module, the 7550S is capable of handling C2 level VVOC. If the analyte of interest is above C3 level, the 7550S's built-in three-bed focus trap (Vocarb 3000) use Pre-Heat and Pre-Desorb to improve focusing.

Key Features

- 72 Position Autosampler
- -25°C Peltier Focuser Covering VVOC
- 350°C Valve Oven & Transferline Covering SVOC
- < 2% RSD on Gas Internal Standard Addition
- No Needle Puncture to Bring Cold Spot Issue
- No Special Cap Required on the Tube
- Proven Robust Low Thermal Mass Metal Focus Trap with Pre-Desorb and Pre-Heat
- Independent Sample Holder for Adding Emergency Sample
- TO-17 Compliant from C_2 to C_{44}
- Built-in Leak Check

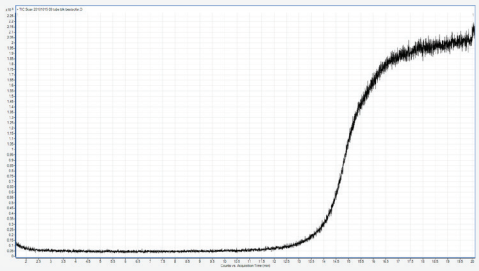
CDS 7550S adopts Computer Aided design, especially the Finite Element thermal analysis in the R&D process. The result is that 7550S has a cold-spot free sample path, and the best power efficiency in the Peltier module that only requires 10 cc/min purge gas.





Our goal at CDS is to provide our customers with convenient tools resulting in the lowest cost of operation. A novel sealing design not requiring any tube cap in desorption meets this goal.

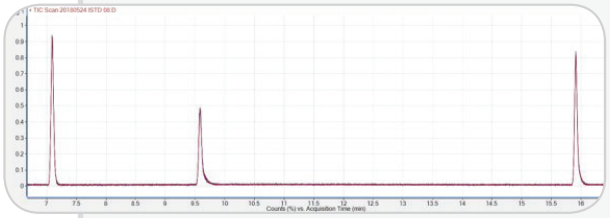
CDS 7550S has the cleanest instrument blank compared to any competitor. In the engineering process, we selected the highest quality components and paid attention to design details such as adding a built-in purging gas filter to capture unwanted traces from the purging gas

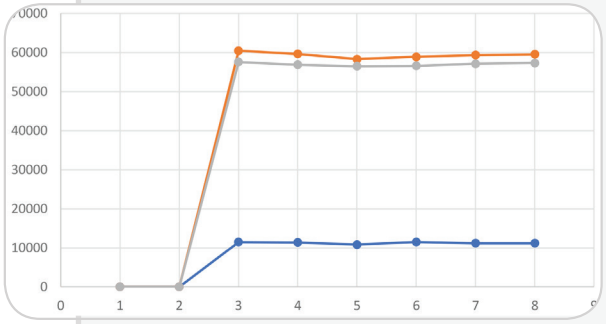


CDS 7550s Product Analytical Performance

Most TO-17 Compounds $R^2 > 0.999$

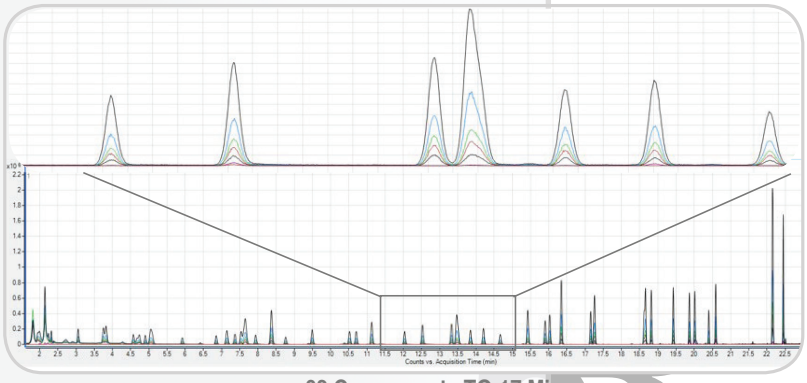
RSD < 2% for TO-17 Gas Internal Standard





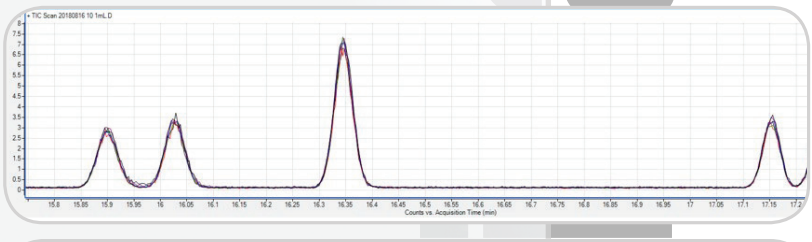
Internal Standard Reproducibility

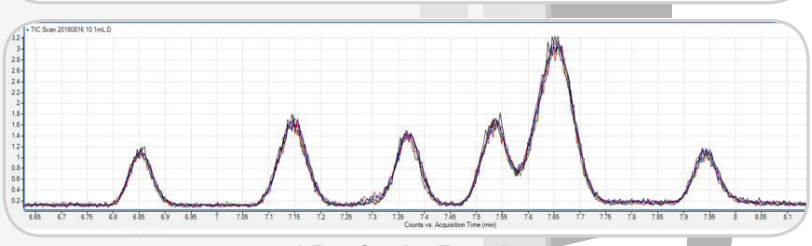
Bromochloromethane RSD = 2%
1,2-difluorobenzene RSD = 1%
Chlorobenzene-d5 RSD = 0.7%



62 Components TO-17 Mix

1, 2, 3, 5, 10 ppb. Top Zoom in from 12 min to 15 min





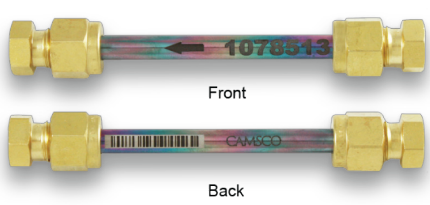
6 Run Overlap Zoom-in

2 ppb Sample. Top from 6.5 min to 8.5 min, Bottom from 15.5 min to 17.5 min

Technical Comparison:

	CDS 7550S
Valve Oven Max	350°C
Transferline Max	350°C
Sample Positions	72
Peltier Trap Min	-25°C
Needle Puncture	No
Tube Cap	No
Focuse Trap Material	Coated Stainless Steel
Focusing	Peltier + Pre-Desorb

Thermal Desorption Consumables



CDS Analytical works with CAMSCO, who has manufactured more than two million thermal desorption tubes, in supplying the highest quality thermal desorption consumables to our customers.

Every single thermal desorption tube and analytical trap has been fully tested on mechanical tolerance and analytical performance before releasing from the factory.

Part Number	Description	Coating/Conditioned	Compression Cap
C-SIC60567-B	Product Emission (C4-C32)	Yes	Yes
C-SIC60564-B	PAH (C6-C40)	Yes	Yes
C-SIC60524-B	Benzene C6	Yes	Yes
C-SIC60520-B	Tenax TA	Yes	Yes
SU60533	Universal (C3-C33)	No	No
SU60520-60	Tenax TA	No	No
SU644-4	TO-17	No	No

CDS Analytical's focusing trap is made of stainless steel and inert coated to remove any active site. A laser printed arrow is marked on the body to show the trap direction in installation.

Part Number	Description	Inert Coating	Size
9301-5055	Vocarb 3000 (C3-C33)	Yes	1/8"x 115mm
CTC30424-1	Benzene C6	Yes	1/8"x 115mm
CTC30420	Tenax TA	Yes	1/8"x 115mm
CTC30425	Emissions (C4-C32)	Yes	1/8"x 115mm
CTC30420-7	Chemical Weapon	Yes	1/8"x 115mm

CDS Analytical

Thermal Desorption Pyrolysis Purge and Trap

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