

LT-ELSD SEDEX 90

The Ultimate Generation of ELSD

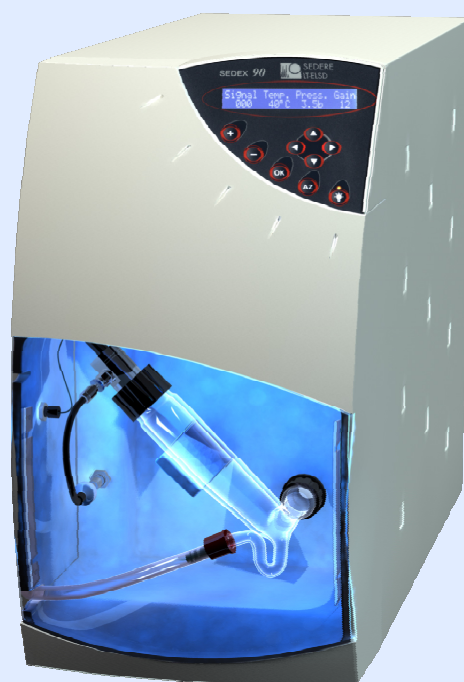
- **Detection of Picogram Levels on Column:** Enhanced Sensitivity in HPLC and U-HPLC.
- **Dynamic Range of Over Four Orders of Magnitude:** Enhanced Determination of very Low Percentage of Impurities (below 0.01%).
- **Direct Linearity:** Enhanced Correlation Coefficients ($R^2 > 0,995$).
- **Peak Widths below 1 Second:** Fully Optimized for U-HPLC.
- **Best Price:** Compared to all Other High Performance Aerosol-Based Detectors.

VERSATILITY

- The **Best Way to get More** from HPLC, U-HPLC and LC-MS.
- Truly **Universal** for all Applications (HPLC, U-HPLC, HTLC, μ -HTLC, SFC...).
- High Performance and Flexibility for **R&D**, Reliability and Simplicity for **QC**.

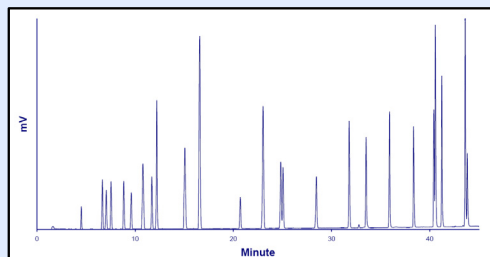
FEATURES

- **Low-Temperature** Technology.
- **New Optical Head** Design based on a Laser.
- **Drivers** available for EZChrom Elite, ChemStation, Xcalibur and Clarity.
- Data Rate of **100Hz**.
- **User-Friendly** and **Low Maintenance** System.



Sensitivity

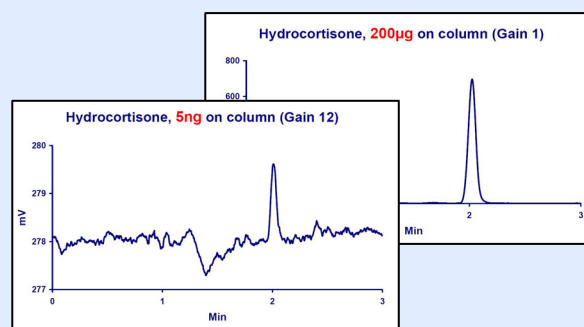
Outstanding Limits of Detection reaching the **mid Picogram Levels** can be obtained with **SEDEX 90LT**, as it is shown here in a generic LC analysis of Lipids:



	RT	LOD (S/N=3)		RT	LOD (S/N=3)
	Minutes	ng (o.c.)		Minutes	ng (o.c.)
1 - Lauric acid	4.87	16.2*	14 - Docosanol	25.57	0.9
2 - Linolenic acid	7.17	4.1	15 - α-Tocopherol (Vit E)	25.80	3.8
3 - Myristic acid	7.58	1.6	16 - Vitamin K	29.20	3.8
4 - Retinol (Vit A)	8.10	3.6	17 - Squalene	32.54	2.4
5 - Linoleic acid	9.43	5.1	18 - Diolein	34.13	2.3
6 - Monolein	10.21	4.8	19 - Trilaurin	36.50	2.1
7 - Palmitic acid	11.43	0.8	20 - Trilinolenin	38.90	2.5
8 - Oleic acid	12.35	5.7	21 - Trimyristin	40.97	1.7
9 - Hexadecanol	12.88	2.1	22 - Coenzyme Q10	41.09	1.8
10 - Stearic acid	15.77	0.5	23 - Trilinolein	41.73	1.9
11 - Octadecanol	17.32	0.5	24 - Tripalmitin	44.09	1.7
12 - Eicosanol	21.63	0.7	25 - Triolein	44.29	1.1
13 - Cholesterol	23.80	1.3			

Dynamic Range

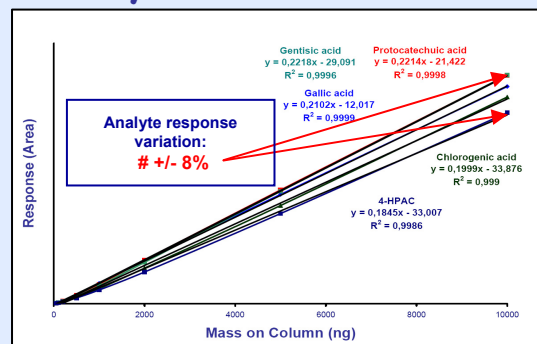
The overall **Dynamic Range** of **SEDEX 90LT** exceeds the **4 Orders of Magnitude**. Analyzing Hydrocortisone, **5ng** on column is clearly detected at Gain 12 and **200µg** is still within the scale at Gain 1. Therefore, impurities of less than **0.01%** can be typically detected and measured in the same run as the main compound using an automatic « Gain Change » setting.



Direct Linearity and Response Consistency

SEDEX 90LT provides an excellent overall **Direct Linearity**. The LC analysis of 5 Phenolic acids (beside) shows the Correlation Coefficients R^2 ranging from **0.9986** to **0.9999**.

Elsewhere, the analyte response variation for compounds having an identical concentration is below **+/-8%**, which clearly demonstrates the very good **Response Consistency** of this mass-based detector in a real LC application (e.g. Gentisic acid and Protocatechuic acid curves are **overlapping!**).



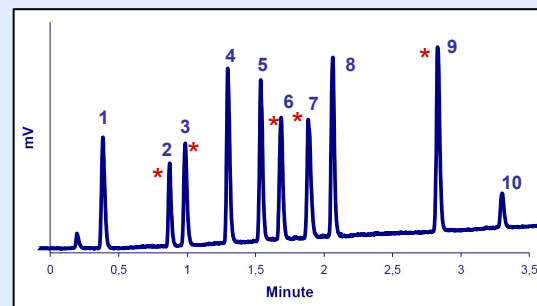
Fully Optimized for U-HPLC

Taking advantage of SEDEX 85LT Technology, **SEDEX 90LT** is Fully Optimized for **U-HPLC**. Indeed, **SEDEX 90LT** can readily measure **Sub-one Second** peak widths with Data Rate up to **100Hz**.

Sample: Drug Mixture (Chromatogram Beside)

1- Sulfanilamide, 2- Caffeine, 3- Chloroprocaine, 4- Acebutolol, 5- Sulfamethoxazole, 6- Noscapine, 7- Propranolol, 8- Hydrocortisone, 9- Ketoprofen, 10- Artesunate.

U-HPLC: Gradient Elution



* Semi-volatile Compound

Courtesy of Dr. Davy Guillaume, University of Geneva, Switzerland.

For more information, contact your local distributor. Phone numbers and addresses can be found in our website www.sedere.com.