

SEDEX
LT-ELSD™

Low Temperature - Evaporative Light Scattering Detectors

THE RESULT OF 25 YEARS OF EVOLUTION



SEDEX 90LT

FOR HIGH PERFORMANCE AND HIGH THROUGHPUT

SEDEXLT-ELSD™

Low Temperature
Evaporative Light-Scattering Detectors

SEDERE

BP 10027 - Parc Volta - 9, rue Parmentier
94141 Alfortville Cedex - FRANCE
Tel: +33 (0)1 45 18 05 18
Fax: +33 (0)1 45 18 05 25
Email: info@sedere.com

www.sedere.com



SENSITIVITY
FLEXIBILITY
EXPERIENCE



SEDEX 90LT FOR HIGH PERFORMANCE AND HIGH THROUGHPUT

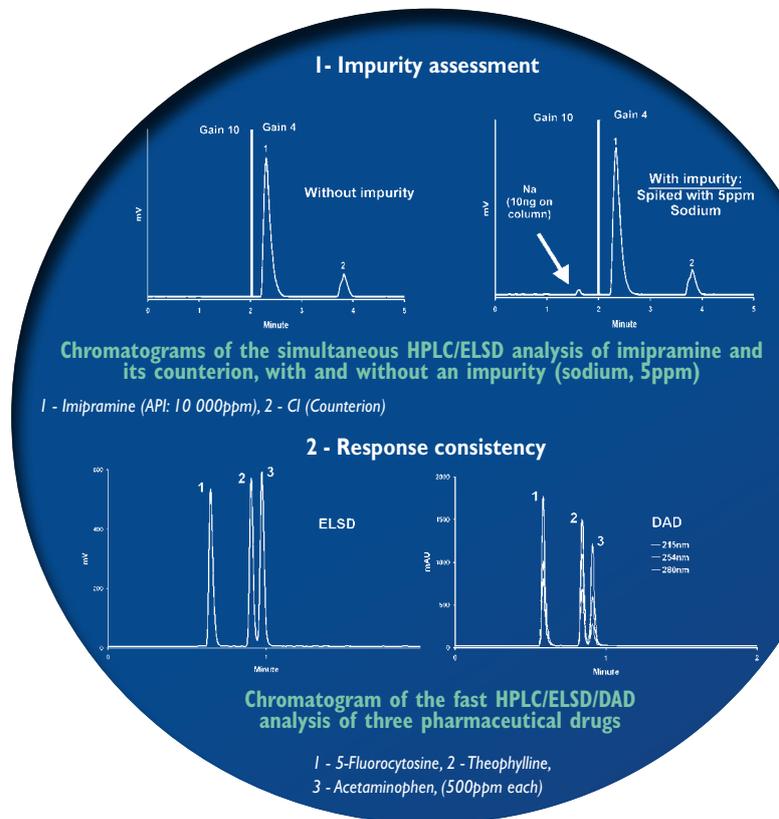
SEDEX Model 90LT Low-Temperature Evaporative Light-Scattering Detector for conventional **HPLC, U-HPLC and SFC** allows for the detection of essentially all compounds: detection is based on a universal property of all analytes and does not require the presence of a chromophoric group, electroactive group, etc. SEDEX Model 90LT combines the highest sensitivity, reliability, and accuracy for your analyses compared to all other aerosol-based detectors, thanks to unrivalled SEDERE low-temperature technology. This detector presents a number of outstanding innovations providing the best optical and electronic benefits at a reasonable price. SEDEX Model 90LT can be connected to any HPLC or SFC equipment, and you can control the detector locally or via a PC for a fully integrated system thanks to our range of SEDEX drivers. A remote shut down mode is also provided to minimize cost and enhance system lifetime. Full SOP protocols are provided for GLP compliance and validation procedures.

FEATURES AND BENEFITS:

- Low-temperature evaporation of the mobile phase: optimizes sensitivity of thermally labile and semi-volatile compounds.
- New optical head design based on a selected laser: provides the highest signal-to-noise ratio for all compounds (typical sensitivity down to the mid picogram level on column).
- Enhanced sensitivity using digital signal treatment: an innovative signal processing algorithm minimizes noise and optimizes sensitivity.
- Dynamic range of over four orders of magnitude: enhanced determination of very low percentage of impurities.
- Direct linearity on the global dynamic range: enhanced correlation coefficients.
- Minimized band broadening thanks to an innovative cell design and a wide choice of nebulizers. Six nebulizers are available to optimize your applications. Four nebulizers cover the flow rate range from 5µL/min to 5mL/min, additionally there is one nebulizer optimized for U-HPLC and another one specifically for SFC. All these nebulizers can be readily and quickly changed to meet the requirement of the application. In addition, all parts of SEDEX Model 90LT are designed to provide the lowest dispersion, so that the observed peak widths are similar to those obtained with the most advanced UV/vis detectors (typically below 1 second in U-HPLC).
- Complete Remote Control: gas, heater, photomultiplier and light source can be automatically switched off at the end of a series of analyses.

TYPICAL APPLICATION: IMPURITY ASSESSMENT AND RESPONSE CONSISTENCY

Aerosol-based detectors are very useful to pharmaceutical analysis, particularly those which provide the best sensitivity and reproducibility, a wide dynamic range, a correct direct linearity and response consistency, and which suit both conventional HPLC and U-HPLC. SEDEX Model 90 LT-ELSD meets perfectly well these requirements. Two case studies are presented to demonstrate the capability of the detector for impurity assessment and response consistency.



TECHNICAL SPECIFICATIONS

COMPONENTS

Detection	Photomultiplier (PMT)
Light Source	10mW - 405nm Laser - Elapsed Time Counter
Temperature Range	Ambient to 100°C
Nebulizer	HPLC, Low Flow, Micro, CC, U-HPLC, SFC
Eluent Flow Rate	5µL/min to 5mL/min
Typical Sensitivity	500pg

DATA

Analog Output	0 - 1 Volt
Gain Settings	1 to 12 - Factor 2 ¹¹ (2048)
Filter	Moving Average (0 - 0.5 - 1 - 2 - ... - 10)
Data Rate	100Hz

COMMUNICATION

Selection & Display	Liquid Crystal Display and Keypad
Events	Contact Closure, TTL for Ready, Autozero
Power-down Methods	Shut-off: Gas, Light Source, Heating and/or PMT Cleaning Mode
Computer Interface	USB, RS-232
Software	Drivers (option)

EXTERNAL REQUIREMENTS

Power	230V/50Hz or 115V/60Hz
Gas Supply	Nitrogen or Air - 3.5bar (less than 3L/min)
Dimensions	250mm (10in) W - 480mm (19in) H - 550mm (22in) D
Weight	18.5kg (41lb)

SEDERE IS COMMITTED TO USER SATISFACTION WITH EVERY SEDEX DETECTOR, AND PROVIDES YOU WITH:

- A Worldwide distribution network at your service.
- On-site installation and training.
- Full SOP (Standard Operating Procedures) including IQ, OQ, PQ.
- Technical and applications support.
- Web-access to applications in many fields.
- User seminars, on and off-site.
- Flexible service contract options.
- Easy-to-order spare parts and accessories.