

Collinear Laser induced Fluorescence Detector



- Ultra Sensitivity for CE, LC and CHIPS
- 14 lasers available for various applications

Simplify the use of fluorescence detection in micro & nano liquid separations with the collinear optical technology

Easy to set up

Labeled molecules and compounds with **native fluorescence** can be readily detected at ultra trace level with low noise and interference

- On-line CE or LC-LIF-MS

Zetalif Laser Detector Specifications:

LIF Capillaries:

OD: 365 µm ; ID: from 20 to 320 µm

Cell detection volume : The cell is a small part of the capillary and depends on the capillary ID, for example 0.4 nL with a 50 µm ID.

Signal outputs:

- External Ethernet for Network communications.
- External Event (detection of a relay state) function. Start/stop command port for an external event command (relay opened or closed).
- Analog output : Processed: 0-1V(DC) for range 0-50 RFU. 0-100mV(DC) for range 0-5 RFU.

Distances: Detector / Cell : 1 m (max)

Power requirements for the detector: 100-240 VAC, 47/63 Hz, 1.5 A

Dimensions and weight:

43.0 cm / 16.9"(H) x 23.0 cm / 9.1"(W) x 34.0 cm / 13.33" (D).

12 kg / 26.4 lbs

LIF Cell : See figure 1

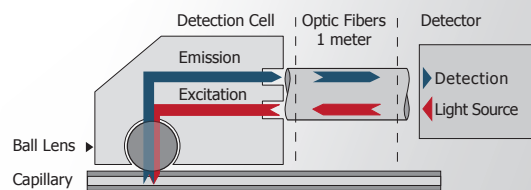


Figure 1: LIF cell: new collinear optical arrangement

Plug and play system.
No consumables: use your own capillaries.

Other CE systems: Please contact Picometrics

Interface with HPLC system:

Zetalif Laser is compatible with all LC systems. Optimal sensitivity is achieved at flow rates <0.5 mL/min. Lower sensitivity may be observed at higher flow rates.

Data Acquisition Systems:

Zetalif Laser is compatible with any data acquisition system featuring an analog input (0-1 V). If no analog input is available, an A/D converter is necessary.

On-Line LIF/MS coupling Kit: allows the LIF cell to be coupled as close as possible to the MS system.

Available Lasers wavelengths: 266, 325, 355, 410, 442, 473, 488, 514, 532, 594, 633, 638, 642, 780 nm.

Emission filter: The emission filters depend on the wavelength and generally contain highpass filters. For specific information, contact Picometrics.

Interface with CE system:

Agilent CE:

The Zetalif Laser detector can now be directly integrated in the Agilent cassette and allows for all functions of the Agilent HPCE.

A LIF cassette is provided by Picometrics. The minimum total length of the capillary is 33 cm (13") / effective length 14 cm (5.5"). A driver is available for a full integration into the Agilent ChemStation or A/D converter (35900E) is necessary for Data acquisition.

Beckman P/ACE MDQ or PA800+:

External Detector Adapter cassette (144829) and A/D converter (SS420-X) are needed. Capillary length: total 53 cm (20.8") / effective 35 cm (13.7"). The system works with the 32 karat software.

US Patent 7,158,227 B2; Fr Patent 2 827 958; US Patent 5,895,920

To learn more about Picometrics LIF Detectors, visit www.picometrics.com

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