The **Flowgene HPLC 224 nm LINF Detector** is the first detector offering the unique features provided by a laser operating at 224 nm:

An *exceptional sensitivity* based upon **Laser Induced Native Fluorescence Detection**, where complex labelling techniques are not required anymore.

The **Flowgene HPLC 224 nm LINF Detector** is designed to be used with:

- HPLC Systems (1/16” fittings)
- Cap-LC Systems
- UPLC
- Capillary Electrophoresis

**Applications**: most of molecules that have an absorption band between 210 and 240 nm

Proteins
Aflatoxins
.....
The Detector is designed with the objective to provide maximum versatility and simplicity for the user:

**VERSATILITY:**
- Removable detection flow cell for HPLC and µ-HPLC
- Can perform Capillary Electrophoresis
- Provided with a Scan Function, that allows the analysis of the fluorescence spectrum of a compound under a 224 nm laser beam

**SIMPLICITY:**
- Integrated 224 nm Laser (option with a 248 nm laser)
- No warm-up time, neither stand-by mode for the laser
- Low power consumption
- Fully programmable
- Instrument controls through a Screen, Keyboard & Mouse
- Detector data easily accessible through a front panel mounted USB connector
The Flowgene HPLC 224 nm LIF Detector is the result of the association of 2 proprietary technologies:
- detection technology, provided by Flowgene
- 224 nm laser supplied by PhotonSystems

**Flowgene Detection technology**

The Detection principle is based upon the properties of an ellipse:
"A light beam coming from one focus point, is reflected to the second focus point"

The Flowgene detection cell is designed according to the ellipse properties:
- the laser hits the tube that contains the compound at one of the focus point of the ellipse,
- the fluorescence is collected at the second focus point of the ellipse,

Result:
the fluorescence collection is optimum

**PhotonSystems 224 nm HeAg laser**

This laser comes with unique features
- Quasi-CW HeAg laser, 224 nm wavelength
- 0-20 mW instantaneous output power, adjustable
- Emission Duration adjustable from 10 to 100 µs
- Emission Rate (PRF) adjustable (as high as 100Hz)
- Life time: over 10 000 hours at PRF of 1 Hz
- Low power consumption (low heat dissipation)
- No warm up time
- No stand-by mode (no laser aging, when not emitting)
- Small Package
- Other wavelength available: 248 nm
Two interchangable detection cells:

Detection cell for HPLC

- Tube dimensions:
  - Outside diameter: 2 mm
  - Innerside diameter: 1 mm

Detection cell for µ-HPLC (Also for Capillary Electrophoresis)

- Capillary dimensions:
  - outside diameter: 375 µm
  - Innerside diameter: from 25 to 220 µm
FLOWGENE
HPLC 224 nm LINF DETECTOR
TECHNICAL INFORMATION

The detector is controlled through one screen:

- **Acquisition**
- **Detection**
- **Laser**
- **Monochromator**

A useful scan function:

- Access the fluorescence maximum of a compound,
- Access the background noise from solvent, buffer, gel,...
- Validate the background noise of the detector
Technical Specifications:

- Integrated 224 nm laser
- Integrated monochromator,
- Windows or Linux operated
- Delivered with 17” LCD screen, soft keyboard & mouse
- Ethernet 10/100 Mps
- 2 USB connections
- Laser and detector control software
- Acquisition software
- Scanning Function for spectrum analysis (from 200 to 600 nm)
- Other laser wavelength available on request: 248, 276, 286 nm
- Analog output, 0-1 V
- 6 digital Inputs/Outputs

General Specifications:

- Dimensions:
- Weight: 12 Kg
- Power: 110-240 V, 50/60 Hz
- Power consumption: under 500 W