

# PREP PROBE

## RADIO FLOW DETECTION FOR PREPARATIVE HPLC AND SYNTHESIS

THE BEST CHOICE FOR HIGH ACTIVITY MEASUREMENT AND FLOW ANALYSIS

- VERY SMALL
- HIGH DYNAMIC RANGE
- HIGH COUNT RATE
- GOOD LIMIT OF DETECTION



Semi- and Preparative HPLC applications as well as radio synthesis are a challenge in radio detection. Extremely high-count rates and radiation lead for most of the detectors to limited dynamic range with low sensitivity for lower count rates or signal cut-offs with high count rates. Other challenges are the aging of the electronics caused by the strong irradiation and the size of the detector shielding that has to be installed in a hot cell where available space is limited.

To overcome these challenges, we propose the Prep Probes in combination with the versatile GABI Nova.



The GABI Nova is a versatile state-of-the-art radio flow monitor. With the Prep Probes, we have developed dedicated detectors for very high activities. The probe is very small, which allows the use of a small shielding. Typical shielding size is: 10 cm in diameter and 14 cm height including a lead cover. The very compact detector, size similar to an AA battery, is installed in the lead shielding above an HPLC loop. Our standard loop sizes are 2, 7 and 16  $\mu$ l but different loop sizes, up to 1 ml, can be built **on demand**, depending on the application to finetune peak detectability and peak shape. Besides, the internal and outer diameters of the loop are also adapted to take into account HPLC flow (from 1 to 250 ml/min). In option, a downstream 6 positions-valve can be installed and controlled by our software to collect the peaks of interest based on chromatogram or defined signal threshold.

This **PreProbe** can be used in a Hot Cell in combination with a HPLC or a synthesis unit. The long detector cable allows to use the Gabi Nova outside of the Hot Cell and the probe inside the cell.

Togheter with the GABI Nova, we introduce the **Elysia Communication Protocol**. Simply change the detector/probe and the system will automatically recognize the type and the serial number of it. This ensures you a perfect documentation of your setup and complies with your GxP tools.



#### Technical specifications

Energy range	30 - 2000 keV
Max. count rate	500 000 Cps
Cable	Max. length 10m

#### Physical specifications

Dimensions	Box : 26 x 61,3 x 100mm Head : diameter 16mm, height 33mm
Weight	0,5 kg



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