

THIN LAYER RADIOCHROMATOGRAPH (TLC-SCANNER)

THE BEST CHOICE FOR FAST
AND RELIABLE PET AND SPECT
RADIO PURITY DETERMINATION

- COLLIMATORS FOR DIFFERENT ENERGY RANGES
- EXTREMELY HIGH COUNTING RATE
- MANUAL OR AUTOMATIC PEAK INTEGRATION AND TLC EVALUATION
- LIMIT OF DETECTION CALCULATION



A high performance TLC scanner for rapid and accurate determination of radiochemical purity using thin layer chromatography. Bidirectional scanning automatically compensates for any isotope decay during scanning. The BGO detector provides high stopping power for single photon isotopes such as Tc99m. For PET use an alternative plastic scintillator is only sensitive to positrons, eliminating background due to other radio-active sources in the lab. Gina software provides real time feedback as the chromatogram builds up and powerful data analysis features.

The system can be delivered with different detector heads and collimators to ensure the best possible detection in function of the isotope you want to measure.

For γ -nuclides, we deliver a scintillation probe with a BGO crystal. Due to its density, BGO has quite high stopping power for radiation and a reasonable energy resolution. BGO is mechanically quite stable and non-hygroscopic. Relative small size and special shape crystal enable a very good sensitivity / resolution ratio.

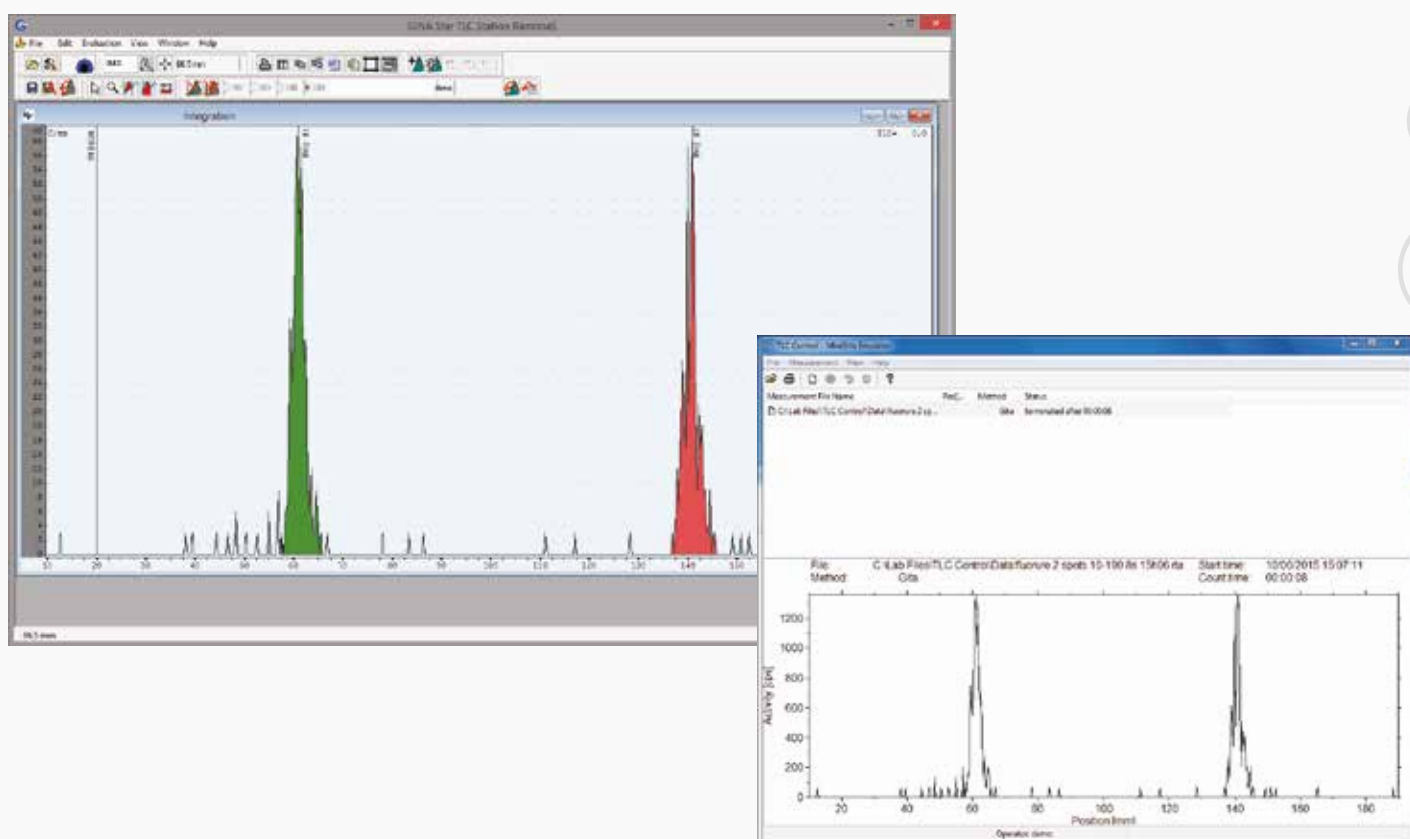
For PET nuclides we deliver detector with a plastic scintillation probe. As it is not sensitive to gamma radiation it will only detect the positrons and have a very low background.

There are 5 mechanical collimators designed for the energy ranges of 0-60, 60-150, 150-250, 250-450, > 450 in keV. Depending on the radiation energy of the radioactive compound, the suitable collimator is inserted into the detector. Simple tools help to keep the distance exactly the same between the sample surface and detector entry window.

The TLC-scanner offers a calibration and sensitivity check. Inserting a suitable reference standard and running the calibration program will result in an energy spectrum scan and calibration.

The chromatogram is displayed live on the screen of the connected PC. Peak integration and evaluation can be performed manually or automatically.

The measurement and data handing are digital (single event counting) and limit of detection can be determined for every small peak.



Technical Specifications

CScan area	25 x 200 mm
Traces	1
Detector	scintillation probe
Nuclides	gamma
Energy	20 – 2000 keV
Activity	10 Bq – 100 MBq
Decay	corrected
Maximum count rate	200.000 cps