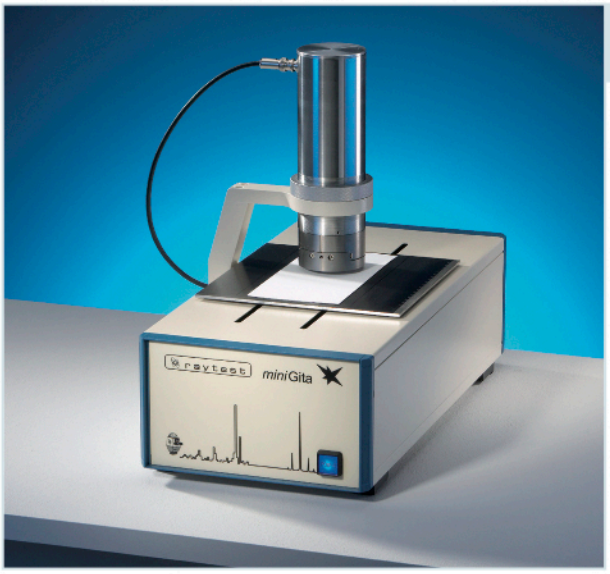
γ-miniGITA

γ- radioactivity-TLC



Applications

γ radioactivity TLC
radiochemical purity test

single trace TLC plate 50x200 mm

multiple nuclides

General description

miniGITA is a scanning device, which moves a radioactivity detector along 1 trace from start to front.
The repeated, fast, continuous detection from start to front and back compensates automatically the radioactive decay of the compound over the scan length.

For nuclides, miniGITA is using a scintillation probe with a BGO crystal. Due to its density, BGO has aquite high stopping power for radiation and a reasonable energy resolution. BGO is mechanically quite stable and non hydroscopic. Relative small size and special shape enable a sophisticated design of the scintillation probe.

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.

miniGITA 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.

After one scan the TLC-plate can be moved manually to the following trace and the next TLC can be examined.

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 is digital (single event counting) and limit of detection can be determined for every small peak.

Features

1 trace scan 25 x 200 mm

automatic energy calibration

extremely high counting rate

dead time correction

automatic decay correction

live display on screen

peak integration, TLC evaluation

limit-of detection calculation

Ordering information

02900012	minGITA* γ-TLC-scanner all programs included	
02900004	miniGITA*collimator	0-60 keV
02900005	miniGITA*collimator	60-150 keV
02900006	miniGITA*collimator	150-250 keV
02900007	miniGITA*collimator	250-450 keV
02900008	miniGITA*collimator	> 450 keV
02900011	γ-reference source with holder	
01240074	installation and 1 day training	

complete installation requires PC and WINDOWS

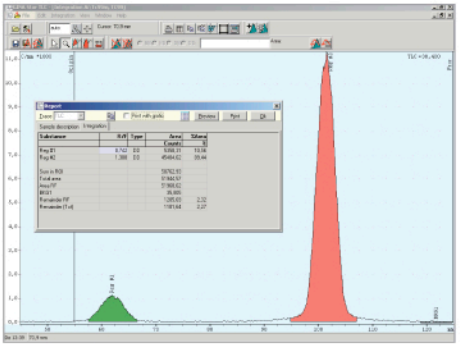
γ-Radiochromatography

raytest

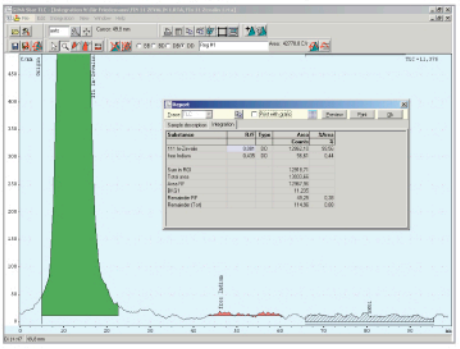
γ-Radiochromatography

γ-miniGITA

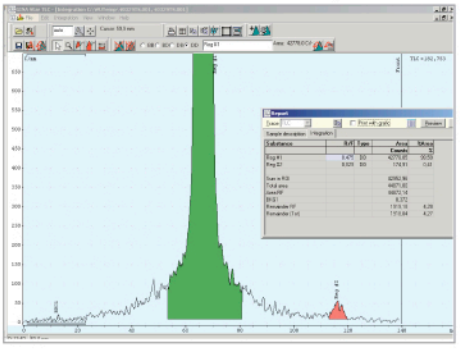
γ- radioactivity-TLC



radioactive TLC , 99m Tc



radioactive TLC , 111 In



radioactive TLC , 123 I

Technical data

Scan area:	25 x 200 mm
Scan speed:	selectable
Traces:	1
Detector:	scintillation probe
Nuclides:	gamma
Energy:	20 – 200 keV
Activity:	10 – 100.000 Bq
Decay:	corrected

collimators 3 x 25 mm open

0-60 keV typical nuclide	stainless steel, 125 I 3 mm high
60 – 150 keV typical nuclide	tungsten, 99 m Tc 5mm high
150 – 250 keV typical nuclide	tungsten, 111In 10 mm high
250 – 450 keV typical nuclide	tungsten 131I 15 mm high
> 450 keV typical nuclide	tungsten 18F 20 mm high
123 I	bkg 0.7 cps (20-100 keV) sensitivity 20 Bq in 10 min resolution 2-3 mm depending on collimator

Sole Distributor in China and Hong Kong : NIKYANG Enterprise Limited

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