

HPTLC - 3000i Series

Thin Layer Chromatography HPTLC- HPTLCMS



EPCC / PRODUCTS / APPLICATION / SOFTWARE / ACCESSORIES / CONSUMABLES / SERVICES

Analytical Technologies Limited

An ISO 9001 Certified Company

www.analyticalgroup.net

HPTLC Imaging System:

- Light source control function: the computer can select the wavelength of the light source, the opening and closing time and the light quantity adjustment;
- Operation management function: it can manage operator permissions, analysis time, location, instrument conditions, analysis methods and support electronic signatures;
- Image optimization function: Correct the image color according to the light source condition to make it more realistic, remove the uneven illumination caused by the light source, the darkness caused by the lens and the wide-angle barrel deformation;
- Image editing function: crop the image, partially or fully enlarge, reduce, rotate and text mark;
- Background optimization function: Multiple images can be overlapped and merged to remove background interference, and the blank plate can be imaged, and the influence of unevenness of the adsorbent can be removed, and the interference can be removed multiple times at intervals;
- Image comparison function: Image comparison function: It is possible to compare the plates between two layers of windows or multiple windows, and to compare the tracks of different samples between different plates or one-to-many comparison with standard tracks. Each track can be reorganized and sorted for parallel comparison; different tracks can be compared and overlapped, and a standard track generation template can be used for template comparison;
- Dynamic calculation function: After the origin and leading edge are set, the R_f value of each spot can be dynamically displayed, and the chromatogram, background, peak height and peak area can be visually compared;
- Data analysis function: The standard equation can be calculated by single point method, two point method and multipoint method, and the content of speckle material can be calculated by external standard method, internal standard method and normalization method;
- Fingerprint function of traditional medicine: cluster analysis of different samples, obtain the fingerprint of TM, guide the similarity analysis and blending guidance between samples;
- Image post-processing function: It can adjust the image format, pixel, color and exposure of the image, change the contrast, saturation and brightness, remove the flaw of the image, and is a good helper for publishing professional articles

Specification :

Imaging size	mixmum 200×200mm
Image sensor area	≥1 inch
Image sensor image quality	≥20,000,000 pixels
Exposure time	0-10s
Communication method	USB
Controller	6 USB interfaces
System	Windows10

- Imaging wavelength : standard UV254nm, UV365nm, white light 400-700nm, the remaining wavelengths can be customized
- Lighting time: Any computer setting between 0-600min, it will be automatically turned off at the time. If you do not consider the lamp life and safety factors, you can expand to 0-∞min any time
- Color depth : 24bit, the number of levels is 16777216
- Professional display system : with 16 bit data processing capability,can display 1.07 billion colors, 4G memory, 2G memory



Chromatogram Development Chambers

- Glass made moulded chambers for TLC. Chambers with ground finish on top for good seal and at bottom for perfect level. One piece joint less moulded chambers to prevent leakage and tough to handle while cleaning.
- Chamber tops and bottoms (both outside the chamber and inside the two troughs)
- Chambers heavy enough to minimise effects of vibration. Stainless-steel and rust proof lid with overhang to completely seal the chamber

Automatic TLC Sampler :

Use of the instrument : 5th generation with 4 mode applicator

Quantitative analysis 2) Micro-preparative chromatography

3) Superimpose – international derivation reagent in same method and

4) In-situ clean-up.

- Sample syringe – 100µl (for analytical work) – 2 Pcs, 500µl (for micro preparative work)-1 Pc
- Sample position on X & Y axis freely selectable
- Method storage – 10 built-in or infinite through system manager
- Self-diagnosis facility.



Spotting method	Contact and spray type
Spot shape	dot, strip, square
Spot length	0-195mm
Spotting platform	20×30cm thin layer
Spotting volume	10nL-2mL
Spot accuracy	±1.25nL
Syringe specifications	10µL、 25µL、 50µL、 100µL
Syringe drive	6400 steps / turn, 3200 steps / mm, 6400 steps / µL
X-axis drive	1600 steps / turn, 200 steps / mm
Y-axis drive	mm 1600 steps/turn, 400 steps / mm
Air pressure	0.4MPa(nitrogen or compressed air)
Gas flow rate	2-3L/min
Heating accessories	heating chassis: room temperature 60 °C, accuracy ± 1 °C; heating nozzle: 30~80 °C
Automatic Sampler	2mL* 96

Photo Recording UV Cabinet for Visualization

- UV Cabinet with a digital camera mounted to inspect the plate
- Keep a record by photodocumentation. Images should be transferrable to PC through image annotation software.
- Dual wavelength 254 nm + 366 nm with guaranteed minimum intensity of 1600 and 1000 respectively
- Full protection to viewer's eyes and skin from UV light.
- Flickerless instant illumination and auto switch off facility with in-built thermal sensor and tilt sensor.

TLC Scanner:

Instrument Indicators

- Measurement methods : reflection absorption method, transmission absorption method and fluorescence method.
- Light source : halogen tungsten lamp, deuterium lamp, mercury lamp (automatic switching)
- DAC: 24-bit A/D, 8-channel, 20 μ s, 2-time conversion
- Measurement room lighting: standard 254, 365nm 8W, white light can be selected
- Filters: 6 filter positions, other filter wavelength can be customized.
- Slit size: 0-8mm in length, 0-4mm in width, continuous variable, arbitrary combination, computer automatic control
- Data acquisition: data acquisition speed 30000DPS, data transmission: 2000000baud

Instrument Composition

- Host (including light source, grating monochromator, mobile platform, USB serial port)
- TLC Imaging System
- Professional TLC Fingerprint Workstation
- Automatic TLC Sampler

Spectral range	190nm~900nm(continuously adjustable)
Monochromator	holographic grating (1200lines/mm)
Spectral bandwidth	5nm、 10nm、 20nm optional
Wavelength accuracy	± 0.5 nm
Wavelength reproducibility	better than 0.1nm
Minimum displacement resolution	10-50 μ m
Imaging wavelength	254nm、 365nm、 254nm, 365nm, white light (automatic control)
Measuring platform	200mm×200mm chromatographic plate
Scanning speed	0-120mm/s
Detector	Photomultiplier
Scanning mode	linear scanning
Operating System	WIN7/8/10
Power Interface	USB 220V 300W

Semi-Automatic TLC Software

New generation complete system for data acquisition, development, scanning and image documentation.

To Produce a comprehensive GLP compliant analysis report with instrument, analyst, date, time, place, method parameters etc. and complete details.

Data security through access control, customised user management and defined access levels.

HPLC Servicing, Validation, Trainings and Preventive Maintenance :

HPLC Servicing :HPLC Servicing : We have team of service engineers who can attend to any make of HPLC promptly @the most affordable cost.

Trainings :We also take up preventive Maintenance to reduce downtime of HPLC's Trainings.

AMC's/CMC :AMC's/CMC :We offer user training both in-House and at customer sites on HPLC principles, operations, trouble-shooting.

Validations :Validations :We have protocols for carrying out periodic Validations as per GLP/GMP/USFDA norms.

Instruments :Instruments :We offer instruments/Renting Services Modules like pumps,detector etc. on Rent.



About Analytical Technologies

Analytical Technologies is synonymous for offering technologies for doing analysis and is the Fastest Growing Global Brand having presence in at least 96 countries across the global. Analytical Technologies Limited is an ISO:9001 Certified Company engaged in Designing, Manufacturing, Marketing & providing Services for the Analytical, Chromatography, Spectroscopy, Bio Technology, Bio Medical, Clinical Diagnostics, Material Science & General Laboratory Instrumentation. Analytical Technologies, India has across the Country operations with at least 4 Regional Offices, 6 Branch Offices & Service Centers. Distributors & Channel partners worldwide.

Our Products & Technologies



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Chromatograph
3007



Optima Gas
Chromatograph



Flash
Chromatograph



Atomic Absorption
Spectrophotometer



Liquid Partical
Counter



Optical Emission
Spectrophotometer



STA



Semi Auto Bio
Chemistry Analyzer



LCMS



GCMS



XRD



Total Organic
Carbon 3800



Fully Automated
CLIA



NOVA-2100
Chemistry Analyzer



PCR/Gradient PCR/
RTPCR



TOC
Analyzer



Laser Particle
Size Analyzer



Ion Chromatograph



Water purification
system

Regulatory compliances



Corporate Social Responsibility

Analytical Foundation is a nonprofit organization (NGO) found for the purpose of:



1. Research & Innovation Scientist's awards/QC Professional Award : Quality life is possible by innovation only and the innovation is possible by research only, hence ANALYTICAL FOUNDATION is committed to identify such personalities for their contributions across various field of Science and Technology and awarding them yearly. To participate for award, send us your details of research / testing / publication at Info@analyticalfoundation.org

2. Improving quality of life by offering YOGA Training courses, Work shops/Seminars etc.

3. ANALYTICAL FOUNDATION aims to DETOXYFY human minds,souls and body by means of yoga, Meditation, Ayurveda, Health Care, Awards, Media, Events, Camps etc.

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