



HPLC DETECTORS

HPLC Detectors - Utilizing high-resolution capabilities, the detector can be paired with versatile detectors like Fluorescence Detector (FLD), Refractive Index Detector (RID), Evaporative Light Scattering Detector (ELSD), and CAD. This allows for the detection of different compounds as required.

APPLICATIONS

Pharmaceutical Industry

Analysis of Ginsenosides (Rg1, Re, Rb1)

Referred to YBZ-PFKL-2021073

- Column: C18, 4.6 × 250 mm, 5 µm
- Mobile phase: A: ACN; B: 0.1% phosphoric acid/water
- Temperature: 40 °C
- Injection Volume: 10 µL
- Flow rate: 1.0 mL/min
- Wavelength: 203 nm

Chromatogram of ginsenosides Rg1, Re, Rb1 using HPLC Sample preparation and analysis setup for ginsenosides

Analysis of Specific Spectrum of Lonicera Japonica Dispensing Granules

Referred to YBZ-PFKL-2021073

- Column: C18, 4.6 × 250 mm, 5 µm

- Mobile phase: A: ACN; B: 0.1% phosphoric acid/water
- Temperature: 40 °C
- Injection Volume: 10 µL
- Flow rate: 1.0 mL/min
- Wavelength: 203 nm
- Column: C18, 4.6 × 250 mm, 5 µm
- Mobile phase: A: ACN; B: 0.4% phosphoric acid/water
- Temperature: 35 °C
- Injection Volume: 15 µL
- Flow rate: 1.0 mL/min
- Wavelength: 350 nm

HPLC analysis of Lonicera Japonica spectrum Lonicera Japonica dispensing granules chromatogram

Environmental Industry

Analysis of 16 Polycyclic Aromatic Hydrocarbons in Water

Referred to HJ 478-2009

- Column: C18, 4.6 × 250 mm, 5 µm
- Mobile phase: A: ACN; B: Water
- Temperature: 30 °C
- Injection Volume: 10 µL
- Flow rate: 1.2 mL/min
- Wavelength: time program

Analysis of polycyclic aromatic hydrocarbons in water by HPLC
Chromatogram of 16 PAHs in water

Analysis of Aldehyde and Ketone Compounds in Waste Gas

Referred to HJ 1153-2020

- Column: C18, 4.6 × 250 mm, 5 μm
- Mobile phase: A: Methanol; B: ACN; C: Water
- Temperature: 35 °C
- Injection Volume: 10 μL
- Flow rate: 1.0 mL/min
- Wavelength: time program

HPLC analysis of aldehydes and ketones in waste gas
Chromatogram of aldehyde and ketone compounds

Veterinary Drugs

Analysis of Enrofloxacin

Referred to the 2020 Chinese Veterinary Pharmacopoeia

- Column: C18, 4.6 × 250 mm, 5 μm
- Mobile phase: 0.025 mol/L phosphate (pH 3.3 with triethylamine) + acetonitrile (83:17)
- Temperature: 25 °C
- Injection Volume: 10 μL
- Flow rate: 1.0 mL/min
- Wavelength: 278 nm

HPLC analysis of veterinary drug Enrofloxacin

Dairy Products

Dairy Immunoglobulin IgG Analysis

Referred to T/SSFS0002-2021

- Column: BioCore™ SEC-300se, 4.6 × 250 mm, 5 µm
- Mobile phase: 20 mmol/L phosphate buffer, pH 7.0
- Temperature: 30 °C
- Injection Volume: 10 µL
- Flow rate: 0.5 mL/min
- Wavelength: 214 nm

IgG analysis in dairy products by HPLC

Food

Analysis of Sialic Acid in Bird's Nest and Products

- Column: 300SCX Cation Exchange, 4.6 × 250 mm, 5 µm
- Mobile phase: Acetonitrile + 0.1% aqueous phosphate (90:10)
- Temperature: 30 °C
- Injection Volume: 10 µL
- Flow rate: 1.0 mL/min

- Wavelength: 205 nm

HPLC analysis of sialic acid in bird's nest

Cosmetics

Analysis of Hair Dye Ingredients

Referred to Cosmetic Safety Technical Specifications

- Column: C18, 4.6 × 250 mm, 5 µm
- Mobile phase: Acetonitrile + methanol + 0.02 mol/L ammonium acetate buffer (pH 7.5) (2.5:2.5:95)
- Temperature: 25 °C
- Injection Volume: 20 µL
- Flow rate: 1.0 mL/min
- Wavelength: 280 nm

HPLC analysis of hair dye compounds p-phenylenediamine, diaminotoluene, resorcinol

FEATURES

TT-HPLC Lab Workstation

User-Friendly Interface

The workstation interface features a sleek, flat design that streamlines tasks such as method development, data acquisition, processing, report editing, and printing. The left-side navigation area offers quick access to key modules like project management, spectrogram acquisition, and integral processing.\

A common ribbon at the top allows for straightforward editing and execution of methods and sequences, removing the need for multi-level menus. On the right side, a status monitoring panel dynamically displays the real-time status of the instrument.

User-friendly TT-HPLC workstation interface with navigation, ribbon, and status monitoring

User-Friendly Design Features

The workstation includes a built-in method library that enables quick retrieval and recall, improving workflow efficiency. It also provides intelligent diagnostics and maintenance reminders to ensure reliable operation.

Precision and Data Processing

Equipped with powerful data-processing capabilities, the system supports up to 25 integration events and three quantitative calculation methods:

- External standard method
- Internal standard method
- Normalization method

These tools make the workstation ideal for handling complex analytical data with precision.

Data processing and integration features of TT-HPLC workstation

Compliance and Security

Database Storage

The professional database system encrypts original files and secures raw data, ensuring safety and integrity at every step.

Backup and Restore

Convenient data backup and restoration functions provide added reliability and ease of use.

Multi-Level User System

A customizable multi-level access control system enhances data security and operational effectiveness.

Traceability

The workstation complies with FDA 21 CFR Part 11 standards, offering complete records and full traceability for regulatory compliance.

Compliance features of TT-HPLC workstation with traceability and FDA 21 CFR Part 11 alignment



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