

CAMAG Derivatizer



Automated spraying device for reagent transfer
in postchromatographic derivatization of TLC/HPTLC chromatograms

CAMAG[®] WORLD LEADER IN PLANAR CHROMATOGRAPHY

CAMAG DERIVATIZER

HOMOGENEOUS REAGENT TRANSFER ONTO TLC/HPTLC PLATES

The CAMAG Derivatizer sets a new standard of reproducibility and convenience in reagent transfer onto TLC/HPTLC plates by employing a unique "micro droplet" spraying technology (patent pending). The device is suitable for all common reagents.

In addition to the unsurpassed homogeneous reagent distribution, the Derivatizer offers other advantages as compared to manual spraying.

- Environmentally friendly and safe handling through a closed system
- User-independent results
- Low reagent consumption, *i.e.* 4 mL for 20 × 20 cm plates and up to 3 mL for 20 × 10 cm plates
- Intuitive operation and easy cleaning

Operation

At the push of a button, the transparent hood automatically lifts so that the user can remove the plate tray and place the TLC/HPTLC plate on it. After the tray is inserted into its original operating position, the hood is lowered and completely sealed to prevent aerosols/spraying reagent from leaking to the outside.

The user fills the required reagent volume into the appropriate nozzle, selects the optimum spraying model and starts the reagent transfer.

To meet the divergent physicochemical properties of the reagents, *e.g.* viscosity, four different color-coded nozzles are available, and the user can select from six spraying modes.

The nozzle generates an extremely fine reagent aerosol, which evenly distributes in the chamber and gradually settles down on the TLC plate.

Any residue remaining in the gas phase is automatically aspirated by the integrated pump and collected in the wash bottle behind the instrument. After the reagent transfer has been completed, the hood lifts at the push of a button and the TLC/HPTLC plate can be removed for further processing.



The nozzle generates an extremely fine reagent mist.

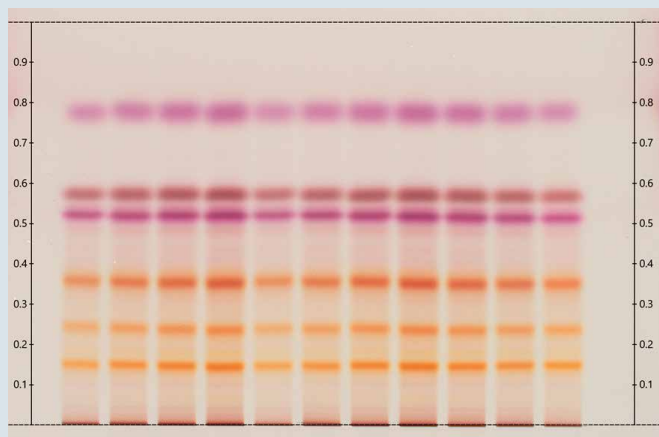


Residues are aspirated and collected in the wash bottle.

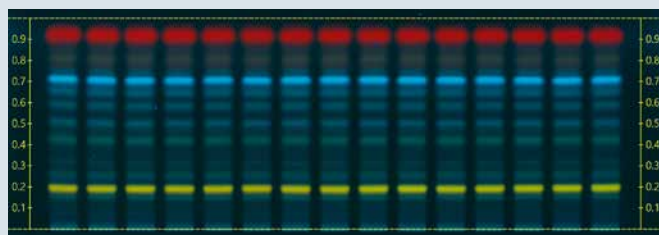


Results

Derivatization means another step in the process of planar chromatography, consequently causing an increase in variance. Even with a trained, expedient technician manually spraying a reagent, the relative standard deviation (RSD) of the measured values rises up to 12%. Using the CAMAG Derivatizer, the RSD increases by less than 5%, thus providing very reproducible results, equal to those obtained with the Chromatogram Immersion Device, yet consuming considerably less reagent.



Anisaldehyde reagent sprayed with the Derivatizer



Natural product reagent sprayed with the Derivatizer

The following most common reagents have been tested and validated for use with the Derivatizer:

- Sulfuric acid reagent (10% in methanol)
- Anisaldehyde reagent
- Natural product reagent
- Polyethylene glycol solution
- Iodine solution (0.5% in ethanol)
- Dragendorff reagent
- Fast blue salt B reagent
- Ehrlich's reagent
- Phosphomolybdic acid reagent
- Ninhydrin reagent
- Copper (II) sulfate reagent
- Aniline-diphenylamine-phosphoric acid reagent
- Vanillin reagent
- Potassium hydroxide solution (5% in methanol)
- Aqueous solutions (enzymatic solutions, etc.)

To watch the product video, go to www.camag.com/derivatizer or scan the QR code.





Technical specifications

General data

Supported plate formats: 20 × 20 cm or 20 × 10 cm

Recommended working temperature: 20–25 °C

Recommended working humidity: 35–45%

Electrical data

Operating voltage: 100–240 V

Frequency: 50–60 Hz

Fuse: 1.0 AT, 250 V

Mechanical data

Width: 245 mm, depth: 430 mm, height: 355 mm

Net weight: 11.6 kg (20 × 20 cm), 10.6 kg (20 × 10 cm)

Ordering information

022.6000 CAMAG® Derivatizer complete, with hoods and trays for 20 × 20 cm or 20 × 10 cm plates

022.6020 CAMAG® Derivatizer complete, with hood and tray for 20 × 20 cm plates

022.6010 CAMAG® Derivatizer complete, with hood and tray for 20 × 10 cm plates

Detailed ordering information: www.camag.com/derivatizer

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