

Corona ultra RS Detector for UHPLC The Next Generation of Charged Aerosol Detectors



UHPLC⁺
focused

Dionex products are UHPLC compatible by design, establishing the new standard in conventional LC. Integrating hardware, software and separation chemistry, Dionex offers UHPLC to everyone—for all needs.

The Corona® ultra RS™ Charged Aerosol Detector (CAD®) delivers performance that other detectors simply cannot match. Charged aerosol detection technology helps you see analytes that other systems fail to detect. UV detection fails to detect compounds without chromophores. Other universal detectors may not be compatible with UHPLC or do not combine application versatility with reliability.

Consistent response independent of analyte chemical structure is a unique characteristic of charged aerosol detection, which lets you estimate relative amounts even without standards. When combined with a dynamic range of over four orders of magnitude, it is ideal for trace analysis.

Virtually every pharmaceutical company has adopted the Corona detector, because it has greater sensitivity, wider dynamic range, and more consistent response than other technologies. The Corona ultra RS detector combines all the benefits of charged aerosol detection with the high speed and increased resolution of UHPLC.

Features

The Corona ultra RS detector, when used with a UHPLC system, offers:

- Consistent response
- Near universal detection
- Ease of use

The Corona ultra RS detector can be used with the most up-to-date UHPLC technology, such as the UltiMate® 3000 RSLC system, to measure analytes that cannot be seen by UV and may not be readily detected by mass spectrometry.

The Corona ultra RS includes an expanded set of noise filters, a new data processing algorithm, an internal switching valve and an optional adjustable flow splitter.



Now sold under the
Thermo Scientific brand

Thermo
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Any nonvolatile and many semivolatile analytes with or without a chromophore can be measured using this technology. With nothing to set or optimize and a predictable response, the Corona ultra RS will quickly become your first choice detector for HPLC and UHPLC.

The Corona ultra RS detector has the flexibility and performance required for analytical R&D and the simplicity and reproducibility needed for manufacturing QC/QA. It can be used for almost any analysis in pharmaceuticals (large and small molecule), biofuels, food and beverages, specialty chemicals and counter ions, and for applications from research to manufacturing.

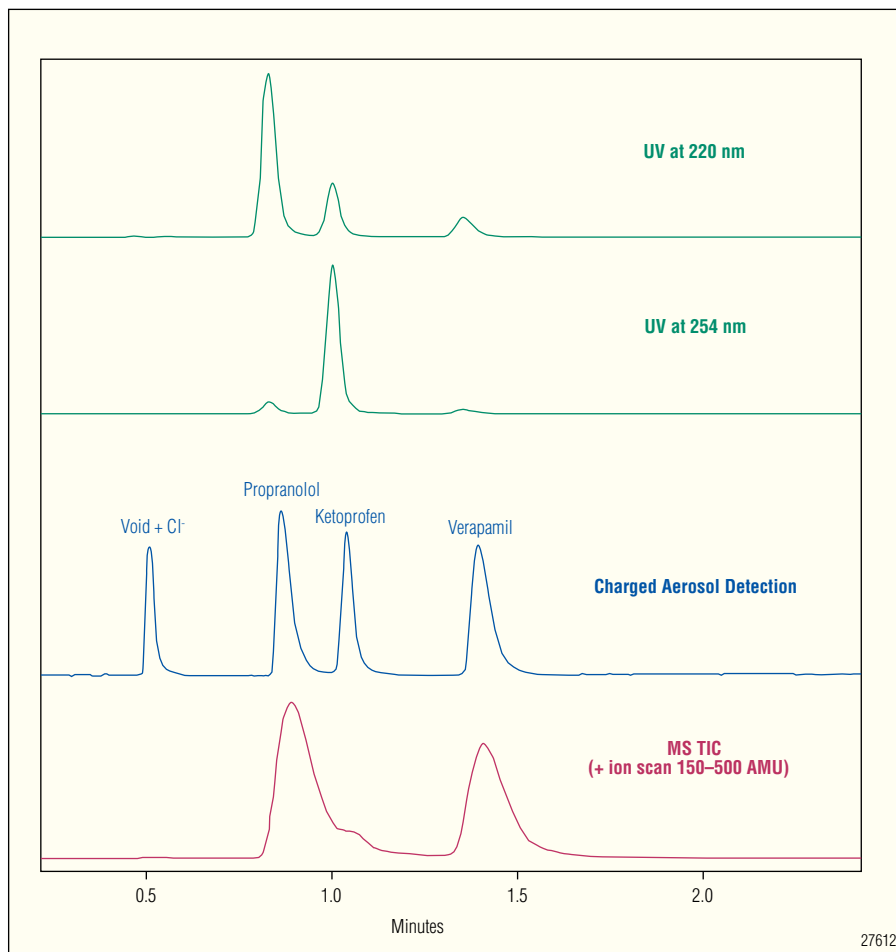


Figure 1. Comparison of charged aerosol detection to UV and MS detection.

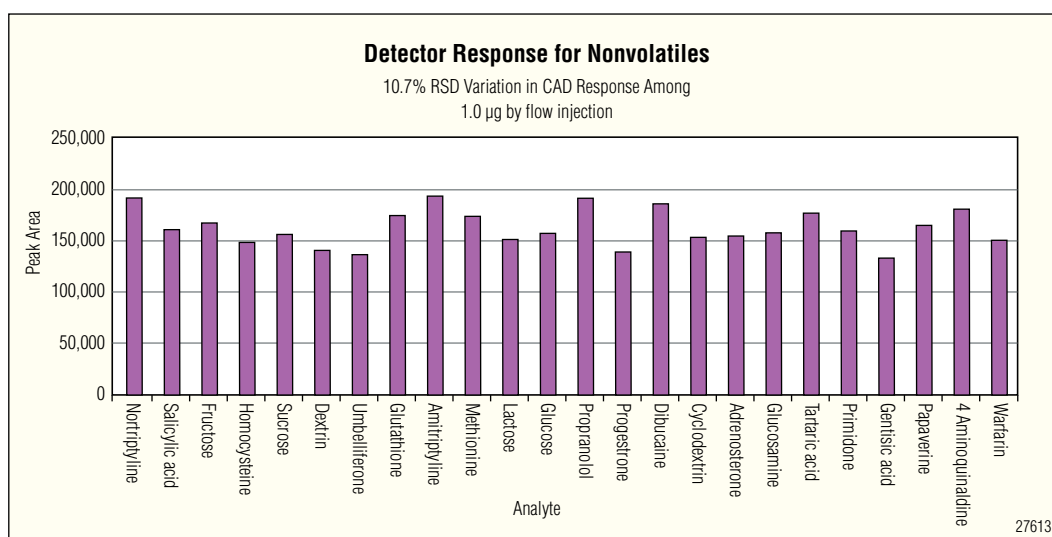


Figure 2. Response by flow injection analysis is similar for equivalent amounts of a wide diversity of analytes.

CORONA ultra RS DETECTOR SPECIFICATIONS*

Operating Mode: Charged Aerosol Detection	Display: LCD	Gas (Air or Nitrogen): Gas must be free of volatile hydrocarbons (e.g., compressor oils), particulates, and water vapor
Mobile Phase Flow Rate: 0.2–2.0 mL/min	Interface: Integrated touch screen	Inlet Gas Pressure: 60 psig (4.14 bar)
Wettable Surfaces: 316 stainless steel, Nitronic® 60 stainless steel, Valcon H, Valcon E, PEEK™, and Teflon®	Nebulizer Settable Temperature Range: 5–35 °C Factory set at 25 °C	Operating Gas Pressure: 35 psig (2.41 bar)
Full Scale Output Range: 1 pA to 500 pA in 1–2–5 sequence	Temperature Stability: < ±0.5 °C	Dimensions (h × w × d): 22.9 cm × 44.5 cm × 55.9 cm (9 in. × 17.5 in. × 22 in.)
Filter Time Constants: Selectable in numerical sequence (1–2–3 etc. sequence)	Integrated Switching Valve: 6-port, 2-position, driver controlled	Weight: 12.3 kg (27 lbs)
Noise Specifications: <750 fA peak to peak (20% methanol/80% water)	Flow Diversion System: Sensor and firmware for waste bottle overflow prevention	Laboratory Equipment Certifications: USA: UL 61010A-1, 1st Edition
Signal Output: 0–1 V DC	Optional Flow Splitter: Adjustable split from 1:1 to 20:1	Canada: CSA Standard C22.2 No. 1010.1-92
Output Resolution: 0.12 µV at 1 V full scale	Warm-Up Time: < 30 min (typically)	European Union: EN 61326:1997 + A1:1998 EN 61010-1 (2001-02)
Maximum Output Data: 200 Hz	Power Requirements: 100/240 VAC, 50/60 Hz, 100 VA	FCC: Part 15 Subpart B Class A

*Specifications subject to change without notice.

ORDERING INFORMATION

In the U.S., call (800) 346-6390 or contact the Dionex Regional Office nearest you. Outside the U.S., order through your local Dionex office or distributor. Refer to the following part numbers:

Description	Part Number
Corona ultra RS Charged Aerosol Detector with UHPLC Capabilities <i>Includes detector module, accessory kit, signal cable, I/O control cable, fittings, filters, drain/vent tubing, waste bottle and cap, exhaust hose, test standard, and manual.</i>	70-9406

Accessories	Part Number
Nitrogen Generator for Corona Detector, Benchtop <i>Provides high-purity nitrogen (+99%) from 60–125 psig with maximum flow of 4 L/min. Installation kit included. Requires compressed air inlet (95–145 psig).</i>	70-6003
Flow Splitter for Corona Detector <i>Adjustable flow splitter with split from 1:1 to 20:1</i>	70-6337

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PEEK is a trademark of Victrex, PLC.

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