

detectors

Corona *ultra* 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[™] 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* detector combines all the benefits of charged aerosol detection with the high speed and increased resolution of UHPLC.

Features

The Corona *ultra* detector, when used with a UHPLC systems, offers:

- Consistent response
- Near universal detection
- Speed and resolution
- Ease of use

The Corona *ultra* 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.

Now sold under the
Thermo Scientific brand

Thermo
SCIENTIFIC



Any nonvolatile and many semi-volatile 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* will quickly become your first choice detector for HPLC and UHPLC.

The Corona *ultra* 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.

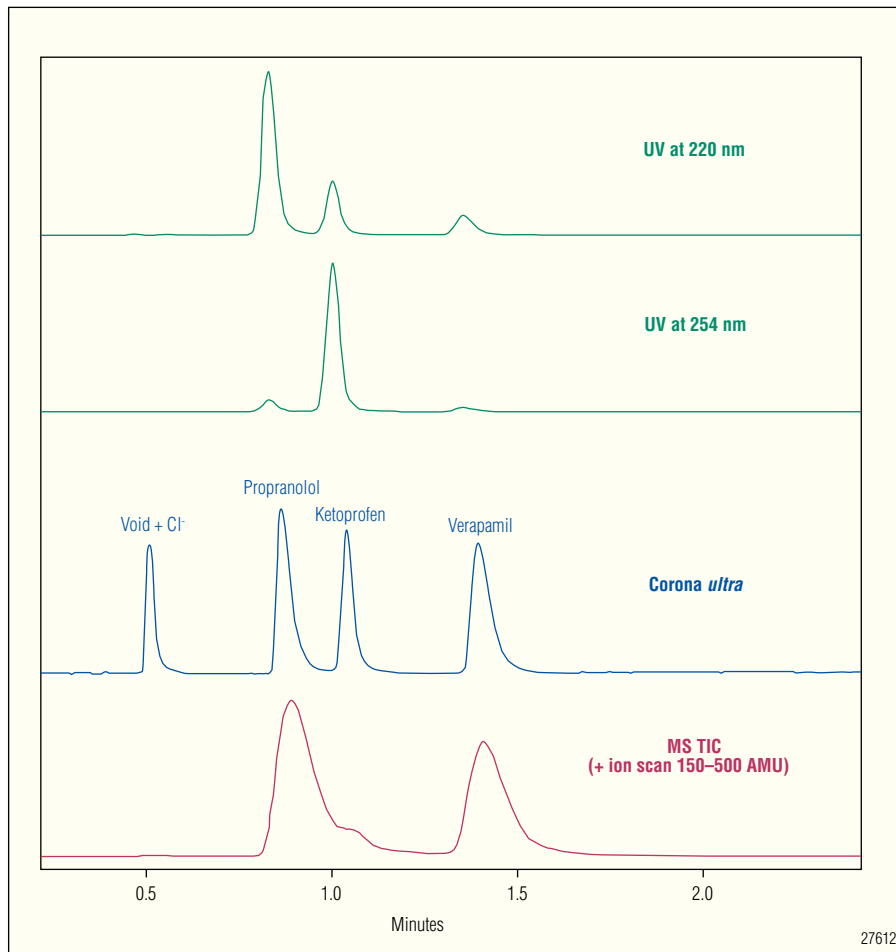


Figure 1. Comparison of charged aerosol detection to UV and MS detection.

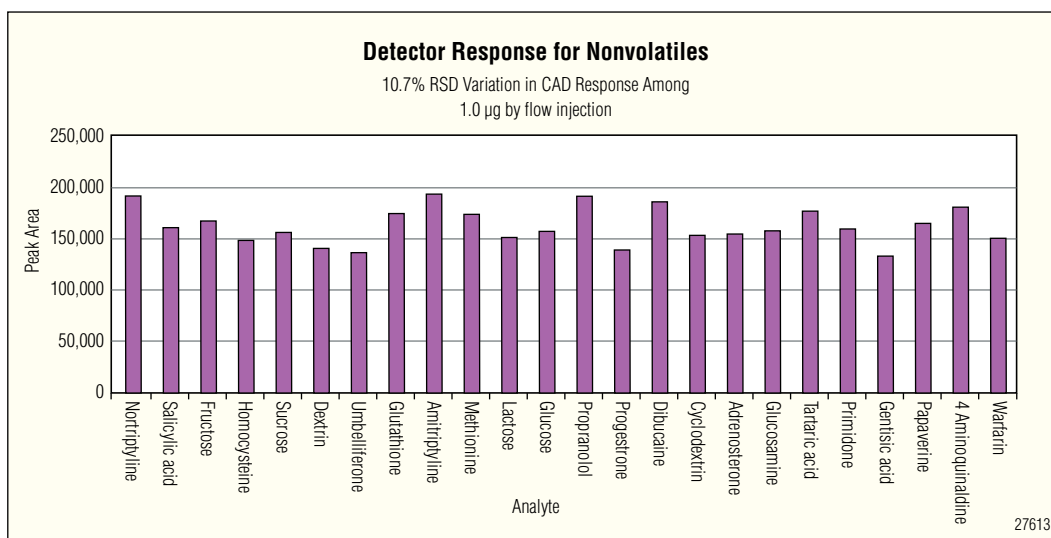


Figure 2. Response by flow injection analysis is similar for equivalent amounts of a wide diversity of analytes.

CORONA *ultra* DETECTOR SPECIFICATIONS*

<i>Operating Mode:</i> Charged Aerosol Detection	<i>Maximum Output Data:</i> 100 Hz	<i>Inlet Gas Pressure:</i> 60 psig (4.14 bar)
<i>Mobile Phase Flow Rate:</i> 0.2–2.0 mL/min	<i>Display:</i> LCD	<i>Operating Gas Pressure:</i> 35 psig (2.41 bar)
<i>Wettable Surfaces:</i> 316 stainless steel and Teflon®	<i>Interface:</i> Integrated touch screen	<i>Dimensions (h × w × d):</i> 20 cm × 36 cm × 43 cm (8 in. × 14 in. × 17 in.)
<i>Full Scale Output Range:</i> 1 pA to 500 pA in 1-2-5 sequence	<i>Nebulizer Settable Temperature Range:</i> Factory set at 25 °C	<i>Weight:</i> 11.4 kg (25 lbs)
<i>Filter Time Constants:</i> None, low, medium, high, Corona	<i>Temperature Stability:</i> < ±0.5 °C	<i>Laboratory Equipment Certifications:</i>
<i>Noise Specifications:</i> <750 fA peak to peak (20% methanol/80% water)	<i>Warm-Up Time:</i> < 30 min (typically)	<i>USA:</i> UL 61010A-1, 1st Edition
<i>Signal Output:</i> 0–1 V DC	<i>Power Requirements:</i> 100/240 VAC, 50/60 Hz, 100 VA	<i>Canada:</i> CSA Standard C22.2 No. 1010.1-92
<i>Output Resolution:</i> 0.12 µV at 1 V full scale	<i>Gas (Air or Nitrogen):</i> Gas must be free of volatile hydrocarbons (e.g., compressor oils), particulates, and water vapor	<i>European Union:</i> EN 61326:1997 + A1:1998 EN 61010-1 (2001-02)
		<i>FCC:</i> 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 <i>ultra</i> 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>	70-8773
Corona <i>ultra</i> Charged Aerosol Detector with UHPLC Capabilities, designed for use with the UltiMate 3000 systems <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>	70-9298
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

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