

Differential Refractometer for dn/dc Determination

Fast and reliable - online and offline



The Differential Refractometer **Dn2010** accurately measures the precise specific refractive index increment value (dn/dc) required for any light scattering analysis or the determination of polymer parameters. The specific refractive index increment value dn/dc is a variable that depends on the solvent in use, the solution temperature, and the wavelength.

Available for either on-line or off-line measurements, the dead volumes are optimized to produce (300ul cell and capillary), the lowest volumes available in the marketplace. 40% less than other instruments. Options are offered for those requiring online and off-line capability.

The Dn2010 detectors are designed for all typical solvents, with choice of three wavelengths, and equipped with a fine temperature control (20 to 80°C).

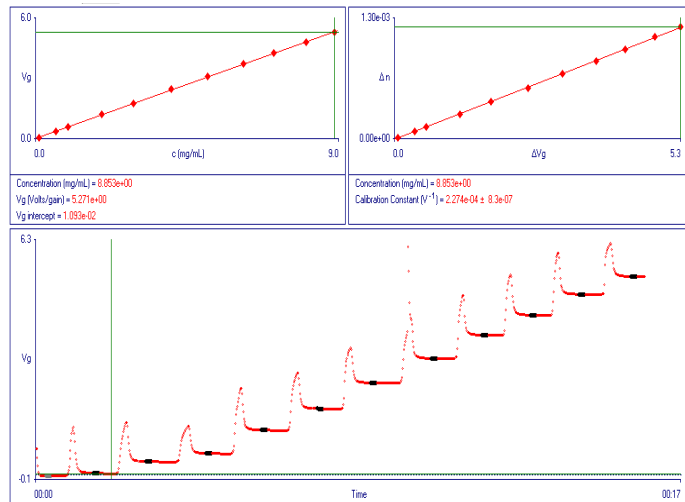
This in combination with the pressure resistant small sample cell quickly provide low noise signals without drift to enable the practical and precise determination of dn/dc values.

Here is why the **Dn2010** instruments are the perfect "must" in modern Laboratories:

- *Affordable price*
- *Smallest sample volume*
- *Shortest measuring cycles: < 20 sec. to steady-state*
- *Compatible with all light scattering detectors (SLD 7000)*
- *Easy operation*
- *Reliable, robust technology*

Benefits at a glance

- Temperature control (20E°C to 80E°C) enables short measuring times at maximum precision:
 - get dn/dc values for 8 concentrations within 10 minutes without correction
 - simple and quick dn/dc determination at different temperatures
- Linearity allows to determine dn/dc over a wide concentration range.
- Online **or** offline operation at 2 different wavelengths.
- Compatible with any light scattering detector, a UV detector and a viscosity detector to perform triple or quadruple detection.
- Effortless data acquisition with the WinGPC Unity Macromolecular Chromatography Data system



Specification		Order Information	
Detection	High resolution diode system	402-0008	DnDc2010*, dn/dc Detector, 620 nm
Cell Volume	8 μ l	402-0009	DnDc2010*, dn/dc Detector, 535 nm
Total fluid volume	< 300 μ l	402-0010	DnDc2010*, dn/dc Detector, 470 nm
Max. System Pressure	7 bar (100 psi)	402-0012	Dn2010, online dn Detector, 620 nm
Light Sources	620/ 535/ 470 nm	402-0013	Dn2010, online dn Detector, 535 nm
Precision dn/dc	better than 1%	402-0014	Dn2010, online dn Detector, 470 nm
Reproducibility dn/dc	within 1%	402-0016	Dn/dc Detector-System*
Absolute RI Range	1,0 to 1,75 RIU	402-0017	Dn/dc Detector-System*
Mains Requirements	110 to 230V AC, 50 VA 50 to 60 Hz	402-0018	Dn/dc Detector-System*online and offline System with 470 nm
Output	2 x RS232 with WinChrom Interface	402-0019	Dn/dc Detector-System*, 620 and 535 nm
Temp.- Fluctuation	\pm 0,01 $^{\circ}$ C	402-0020	Dn/dc Detector-System*, 620 and 470
Input	2 x analog, 1 x digital	402-0021	Dn/dc Detector-System*, 535 and 470
Temperature Control	Amb. to 80 $^{\circ}$ C \pm 0,1 $^{\circ}$ C		* Software for data acquisition and dn/dc calculation included.
Noise Level	< 2,5x10 ⁻⁹ Δ RIU		

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